



PhD thesis

**The impact of consumers' transaction experience on the retailers' transaction-specific brand equity: an analysis into consumers' transaction experience with contactless technology in the context of the UK**

**Batul, K.**

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**The impact of consumers' transaction experience on the  
retailers' transaction-specific brand equity: an analysis  
into consumers' transaction experience with contactless  
technology in the context of the UK**



**Middlesex  
University**

**Kaniz Batul**

**M00514677**

**A thesis submitted to Middlesex University in partial fulfilment of the  
requirement for the degree of PhD**

**Marketing, Branding, and Tourism**

**February 2022**

## **DEDICATION**

This doctoral research is dedicated especially to my mother Zebunnesa Khaled, who always dreamt about this more than myself. I also dedicate this to my beloved father Al-Nasir Khaled, my husband Jahidur Rahman, and my wonderful son Hamza Rahman, whose love and support for me is second to none. Additionally, I dedicated my PhD thesis to my two wonderful brothers, Khandkar Imran bin Khaled and Kamran bin Khaled, who have been tremendously supportive and helpful during my entire PhD journey.

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### **Love you all**

*“Writing a book is an adventure. To begin with it is a toy then an amusement. Then it becomes a mistress, and then it becomes a master, and then it becomes a tyrant and, in the last stage, just as you are about to be reconciled to your servitude, you kill the monster and fling him to the public”*

*(Sir Winston Churchill, 1942)*

## VITA

- 2010 ..... Masters, Marketing  
(Awarded with full Merit Scholarship)  
London Metropolitan University  
United Kingdom
- 2007 ..... Bachelors of Business Studies  
(Awarded with full Merit Scholarship)  
East West University  
Bangladesh

## **PUBLICATIONS**

- ‘Connecting us with the technology- the role of near field communication (NFC) in building brand equity; in the context of a developed city (London) and a developing city (Dhaka)’, Middlesex University Research Students Summer Conference, Middlesex University, London, UK (WITH T.C. MELEWAR, CHARLES DENNIS AND PANTEA FOROUDI).
- ‘Linking transaction experience with transaction-specific brand equity- the role of NFC in building brand equity’, 21<sup>st</sup> International Conference on Corporate and Marketing Communications (CMC), Middlesex University, London, UK (WITH T.C. MELEWAR, CHARLES DENNIS AND PANTEA FOROUDI).
- ‘The concept of transaction experience with contactless pay leading to transaction-specific brand equity – an analysis into the contactless technology in the context of UK’, 3rd International Colloquium on Design (ICDBM), Branding and Marketing, Bournemouth University, Bournemouth, UK (WITH T.C. MELEWAR, CHARLES DENNIS AND PANTEA FOROUDI).
- ‘The impact of consumers’ transaction experience on retailers’ transaction-specific brand equity – an analysis into transaction experience with contactless technology in the context of UK’, 50<sup>th</sup> Academy of Marketing (AM), University of Hull, Hull, UK (WITH T.C. MELEWAR, CHARLES DENNIS AND PANTEA FOROUDI).



## **AUTHOR’S DECLARATION**

I, Kaniz Batul, declare that the ideas, research work, analyses and conclusions reported in my PhD thesis “*The Impact of Consumers’ Transaction Experience on the Retailers’ Transaction-specific Brand Equity – An analysis into consumers’ transaction experience with contactless technology in the context of the UK*” is entirely my effort, except where otherwise acknowledged. Also, I certify that this thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except, where otherwise indicated. I can confirm that this thesis is entirely my own work.

## **ABSTRACT**

This research gave an insight to the concept of transaction experience and established it as a construct; by defining and by establishing measures for the construct. The study also added knowledge to the transaction-specific outcomes and portrayed the impact of transaction experience on transaction-specific brand equity.

Transaction experience occurs while customers are at the checkout, to pay for their purchase. Hence, it is very essential for retail management to ensure that customers undergo a speedy, convenient, enjoyable and secure transaction experience. The overall customer experience is the made up of different stages of experiences at various touch points and transaction experience is one of them. At a retail store the ultimate idea of majority of customers is to save time and effort in their day-to-day shopping. In particular, during the Covid-19 situation in 2020/2021, transaction experience has become one of the major concerns, whereby social distancing and the 'touch' factor have become the main concern, especially at the checkout. However, not many studies highlight the importance of transaction experience, neither there exist any definition or measure for this construct.

Therefore, this research had been carried out to account for these gaps mainly, by exploring the concept of transaction experience, the transaction-specific outcomes from transaction experience and its impact on transaction-specific brand equity. The study has undertaken a mixed-method research design, predominantly a quantitative approach, supported by understandings from an exploratory phase, which embraced in-depth interviews and focus group discussions. In this study, transaction experience was treated as a second order variable and is considered as a formative in nature. It is measured in a formative manner through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security, which are the lower order constructs.

The first stage of this research involved an extensive literature review, where multi-item measures from studies in social psychology and business studies were gathered. The second stage involved interviews and focus groups with customers and professionals to collect more items and to purify current items. The third and final stage involved quantitative survey to examine the validity and reliability of the multi-item measures obtained (regarding transaction experience and other constructs) and to examine the relationships between the constructs. A sample of 500 respondents was used to perform multivariate analysis of the data, which included exploratory factor analysis, confirmatory

factor analysis and structural equation modelling using Partial Least Square (PLS) 3.3.5, to account for the complex model and to ensure that the scales developed were valid and reliable.

The findings of the qualitative analysis led to some major revision and redesigning of the entire conceptual model which was initially designed based on the literature review. Some of the relationships were revised and some hypotheses were nullified. In addition, the qualitative findings pointed towards a couple of moderation (age and profession) and mediation (perceived reputation and brand personality) effects, which were later on incorporated into the revised model. Moreover, the qualitative findings led to some of the construct being renamed (transaction-specific brand personality to brand personality and transaction-specific reputation to perceived reputation).

The quantitative findings supported the significance of the measures of the higher order construct, namely, transaction experience. All the lower order constructs, i.e., perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security are significant measures of transaction experience according to the quantitative analysis. However, the quantitative study did not support and validate some of the hypotheses. For example, it did not support and validate the effect of transaction-specific performance, transaction-specific association, and brand personality on transaction-specific brand equity. Moreover, the moderation effect of profession was not too significant. Although the moderation effect of age was not quite significant, it did have some effect for the younger generation only (moderation effect included two groups, young and elderly generations). The non-validated relationships from the quantitative analysis were well explained and justified by the qualitative analysis. Thus, it is significant and beneficial for the researcher to adopt a mixed-method study.

This research has several theoretical, methodological, managerial and social contributions. Theoretically it contributes to the concept of transaction experience, defines and establish measures the construct. In addition, identifies the transaction-specific outcomes and its impact on transaction-specific brand equity. The major methodological contribution includes the use of PLS statistical software, to analyse the conceptual framework allowing the simultaneous modelling of multiple layers and also studying formative and reflective variables at the same time. Managerial contribution is extended in terms of studying transaction-specific brand equity, which is an important topic for decision-makers, business developers, advertisers, and retail management as it involves profit, loyalty other financial benefits. The social contribution is small yet significant; which is likely to make a checkout experience for customers speedy, convenient, enjoyable and secured.

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# Chapter 1: INTRODUCTION

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## 1.1 INTRODUCTION

This introductory chapter presents the scope of the thesis and discusses the overall thesis in a nutshell. This chapter presents the research background and the gaps in the literature along with the research questions. Section 1.2 presents background of this research. Next, section 1.3 presents the research problem, where the gaps in the literature are identified. The emergence and development of the concept of transaction experience are discussed in section 1.4, while section 1.5 states the research objectives and outlines the research questions that this study aims to answer. Then, the methodology that has been followed to answer the research questions and to test the proposed hypotheses is discussed in section 1.6. Section 1.7 describes the significance of the study. The definitions of each of the constructs are outlined in section 1.8. Finally, a general picture of the overall thesis is drawn in section 1.9.

## 1.2. RESEARCH BACKGROUND

During a transaction experience process, the retailers must ensure that the transaction experience for their customers is quick, convenient, and enjoyable (Beauchamp and Ponder, 2010; Carbone and Haeckel, 1994; Dholakia and Uusitalo, 2002; Gentile et al., 2007; Iman and Borimnejad, 2017; Nasar et al., 2021; Pine and Gilmore, 1998; Rajan et al., 2018; Shaw and Ivens, 2002; Singh et al., 2020; Verhoef et al., 2009; Vuckovac et al., 2017). Furthermore, researchers have long identified consumers' need to save time and effort in their daily lives (Anderson 1972; Gahinet and Cliquet, 2018; Gross and Sheth 1989; Iman and Borimnejad, 2017; Nickols and Fox 1983; Rajan et al., 2018; Vuckovac et al., 2017). So, some customers choose self-service simply because it saves them time during the service delivery procedure (Lovelock and Young, 1979), and it is evident how, day by day, technologies are introduced and incorporated into the transaction to make it fast, convenient, and pleasurable.

In particular, during the Covid-19 pandemic in 2020/2021, transaction experience has become one of the major concerns for the retailers and for the customers, whereas social distancing and the 'touch' factor have become the main concerning factor especially at the checkout. Over three million people have been affected by Covid-19, which is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and over 207 000 people have died in over 200 countries since it first emerged in December 2019 (Lopes et al., 2023; Pal and Bhadada, 2020). The virus is transmitted from person to person mostly through fomites or respiratory droplets, creating worries for the entire transaction experience at retailers. The major concerning factor was that cash and coins could transmit the virus

very easily affecting millions of people while they are paying for their shopping at the checkout (Mohan and Thalari, 2023; Morrisons et al., 2023; Pal and Bhadada, 2020). Thus, during those times, searches for the term 'cash' and 'virus,' or 'Covid,' on the internet reached an all-time high throughout the outbreak (Jiang et al., 2023; Pal and Bhadada, 2020; Thaba et al., 2023).

Therefore, offering a safe and superior customer experience, which mainly includes the transaction experience, seems to be one of the central objectives in today's retailing environments. Transaction experience is an important part of customer experience. Hence, knowing more about transaction experience will reveal more about the overall customer experience. Similarly, if transaction experience could be improved, the overall customers experience would surely improve. In today's competitive market, everyone needs to make sure they stand out, and hence, considering every possible way and paying attention to detail is the only winning strategy.

Retailers across the globe have embraced strongly the concept of customer experience management, with many incorporating the notion into their mission statements (Verhoef et al., 2009). Toyota's mission statement, "Sustain profitable growth by providing the best customer experience and dealer support," is one such example (Michelli, 2007). What people remember about an experience is determined by various factors. However, the concept of customer experience is not a simple one; as Gronroos (2006) claimed, value is not created by one element alone but by the total experience of all elements (one of which is transaction experience), and it takes into account many 'experiences' to create the total customer experience. After the Covid-19 situation, Hoyer et al. (2020) researched the different 'touch points' of a customer, that is, every individual direct and indirect contact with a company at specific points in time at a retail outlet and suggested modern technologies to make the overall customer experience a safe and memorable one.

A number of scholars (Berry et al., 2006; Dubberly and Evenson, 2008; Gronroos, 2006; Hoyer et al., 2020; Zomerdijk and Voss, 2010) believe that customer experience is the made up of different stages of experiences at various 'touch points', and these elements can be thought of as a collection of sensory qualities that contribute to the creation of favourable product or service experiences. Thus, the complete customer experience is a sum of the brand experience, the product experience, the shopping experience, the service, the aesthetic experience, the checkout experience and many more. Each of these individual experiences must be analysed and focused on to deliver a perfect total customer experience (Gronroos, 2006; Hoyer et al., 2020). To make the overall customer experience a successful one, the retailers need to ensure that their customers are satisfied at each of the touch points.

This study explores one of the many aspects/touch points of customer experience, which is the transaction experience.

Creating a positive transaction experience can add value to the retailers, thus having positive impact on the brand equity. Pine and Gilmore (1999) claimed that providing a distinctive customer experience can result in a significant economic benefit for retailers. To be distinct from others, each of the ‘touch points or stages of customer experience must be considered to deliver the best overall customer experience. As far as reputable retail brands are concerned, they strive to put their utmost effort into creating the best overall customer experience, ensuring maximum customer satisfaction at all the stages or touch points.

Transaction experience is the process that customers have to go through at the checkout in retail shops. While this refers mainly to the offline context, the concept is similar for online transactions. Providing a good consumer transaction experience is considered to be one of the most important goals in retailing environments, whether they are online (Chang and Yang, 2016) or offline (Verhoef et al., 2009). Nonetheless, very little study has been done on transaction experience, and the literature has very limited information about transaction experience in the context of brand management and marketing, whereas there is evidence in the relationship marketing literature that many ideas of customer experience are important (Berry, 2002; Lewis, 1989; Rahimian et al., 2020).

The concept of transaction experience is very important for many reasons. The most important reason is that this is the only time customers are ‘giving’ rather than ‘taking’. So out of all the touch points as mentioned before when customers are browsing, looking for products, and so on, the retailers are trying their best to satisfy their customers and to make them feel good. At this stage, the customers are taking all the services and enjoying their shopping until they come to the checkout when it is time is for the customers to ‘pay’ or ‘give’. It is a reality that few people enjoy spending money, as it is a limited resource. Furthermore, when a consumer visits a retail establishment, he or she incurs two basic costs: time and effort. Thus, according to several authors, it is very important for the retailers to make this transaction experience quick, pleasurable, and convenient (Beauchamp and Ponder, 2010; Dholakia and Uusitalo, 2002; Rajan et al., 2018; Seiders et al., 2007; Vuckovac et al., 2017).

Another school of thought contends that several ‘experience concepts’ have emerged as essential marketing concepts aimed at generating a distinctive, delightful, and memorable experience. Scholars describe it as a strategic process for creating comprehensive customer value, achieving uniqueness,

and retaining competitive advantage (Carbone and Haeckel, 1994; Gentile et al., 2007; Pine and Gilmore, 1998; Shaw and Ivens, 2002; Verhoef et al., 2009). Regarding this process, modern business practices are being profoundly altered by the rapid development and acceptance of information technologies (Capuyan et al., 2021; Rajan et al., 2018; Vuckovac et al., 2017). Furthermore, the rising use of electronic commerce for commercial transactions has resulted in major breakthroughs, particularly in contactless technologies (Hao, 2021; Raghu, 2008). Hence, this has led to the rise of new technologies, such as contactless pay, Apple pay, mobile pay, digital pay, hyper wallet-pay, and many more that are still being developed.

However, all these are versions of near field communication (NFC) or, to put it simply, contactless technology. The aim of these technologies is to make transactions smoother, quicker, and enjoyable to improve the transaction experience for the retail customers. Especially during the pandemic, the need for cashless transactions has been at its peak state, and most of the cases, the shift to contactless payment has been a mandatory or has been the only option for transaction. This way customers' method of payment is not only quick and convenient but also very safe involving fewer interactions and less time (Allam, 2020; Sharma et al., 2023).

Retailers are discovering new ways to persuade customers to spend more and the technologies are a significant part of this strategy (Yang et al., 2023). If the retailers are successful in creating a quick, convenient, and pleasurable experience during transactions, it can have a positive and significant impact on revenue (Morrisons et al., 2023). Regarding payment, contactless technology has proven to be more efficient than cash, according to the academics Ondrus and Pigneur (2007). Purchases made with contactless technology were 25% faster than purchases made with traditional methods of payment.

According to a separate Visa study (Norton, 2022). Similarly, Chen (2008) found that the speed of contactless payment makes it an excellent choice for mobile payments, and the speed and convenience of cashless transactions are two of the most significant advantages of cashless payment (Chen, 2008; Hao, 2021). Collier and Sherrell (2010) and Ding et al. (2011) suggested that convenience is a driver of satisfaction. Moreover, as Kim et al. (2010) and Luarn and Lin (2005) stated, recognizing the users' choice of mobile-commerce has often been linked with the convenience it offers, whereas Jih (2007) in his research found that the users' intention to shop was positively affected by the perception of transaction convenience.

The importance of studying transaction experience for the retailers is evident from the above discussion, as is the importance of making sure that the customer's transaction experience is not only speedy and convenient but also enjoyable as possible. Since the three important factors that are considered to measure transaction experience for this study are speed, convenience, and enjoyment, the research is carried out in the context of contactless technology, as it reflects all the three factors mentioned above during a contactless payment transaction. This will, in turn, have a positive effect on the retailers' transaction-specific brand equity (Berry, 2000; Carbone and Haeckel, 1994; Colicev et al., 2018; Gentile et al., 2007; Pine and Gilmore, 1998; Pine and Gilmore, 1999; Shaw and Ivens, 2002; Verhoef et al., 2009; Zablocki et al., 2017).

This proposition can be further justified by the study of Hogarth and Einhorn (1992) and Hogarth (1981), who concluded that transaction experience is one of the most effective tools to attract repeat customers and thus increase brand equity. However, as civilization has progressed in terms of technology advancement and internet familiarity (Immonen and Sintonen, 2015), managing transaction experience has become the greatest challenge for all the retailers around the globe; as Angelou (2013) stated, "People will forget what you said, people will forget what you did, but people will never forget how you made them feel".

### **1.3. STATEMENT OF RESEARCH PROBLEM**

Customer experience publications are mostly found in practitioner-oriented management books and journals (Berry et al., 2002; Burton et al., 2020; Cheda and Roggenhofer, 2017; De Keyser et al., 2020; Frow and Payne, 2007; Gentile et al., 2007; Hodgkinson et al., 2021; Meyer, 2007; Meyer and Schwager, 2007; Shaw and Ivens, 2005; Tom Dieck et al., 2021). In general, these publications tend to focus more on managerial actions and outcomes than on the theories underlying the antecedents and consequences of customer experience, and despite the recognition of the importance of customer experience (and the various aspects of customer experience/touch points) by practitioners, the academic marketing literature investigating this topic has been limited (Dennis et al., 2014; Ding and Tseng, 2015; Farhana et al., 2021; Foroudi et al., 2018; Gao et al., 2021; Hermes and Riedl, 2021; Manhas and Chauhan, 2017; Ngo and O'Cass, 2013), and reliable literature on transaction experience rarely exist in the literature.

Although there is very little marketing literature available, retailing and service management have consistently failed to recognize customer experience as a unique construct. Studies have instead



focused their efforts on determining service quality and consumer satisfaction (Agarwal et al., 2021; Ali and Raza, 2017; Gera et al., 2017; Harwina, 2021; Parasuraman et al., 1988; Ramanathan et al., 2017; Verhoef et al., 2007). Hence, there is a huge research gap regarding identifying the new aspects of customer experience to contribute to the overall customer experience itself. Gentile et al. (2007) empirically investigated the specific role of different experiential features in the success achieved by several well-known organisations. Companies must choreograph all of the 'clues' those individuals notice during the buying process, according to Berry et al. (2002), in order to compete by delivering customers a positive experience. According to Balbin et al. (1994) and Holbrook and Hirschmann (1994), consumption has experiential components (1982).

Schmitt (1999) stated that experiential marketing is a method of marketing in which businesses allow their customers to sense and feel, think and act, and relate to a specific brand. As mentioned above, researchers believe that the overall customer experience comprises various 'touch points' (Hoyer et al., 2020). Thus, in this study, the focus is on transaction experience, which is significant in creating the ultimate customer experience because this is the only stage of the customer buying/shopping process where customers spend money, and so this is the stage in which they tend to be the most demanding and most impatient. Thus, considering this certain type of experience (transaction experience) is very important. Hence, the scope and contexts of customer experience, such as transaction experience in this case, needs to be examined for a better overall customer experience (Hao, 2020; Jain et al., 2017).

Only a few studies have focused on the specific experiences that have a favourable impact on consumers' emotional and cognitive responses to products (Dennis et al., 2014). Jain et al. (2017) and Kuppelwieser and Klaus (2021), claimed that a number of efforts have been made to define and conceptualize customer experience and understand its relationships with a wide range of variables, yet there is no consensus about the construct and definitions. Developing and validating theoretical frameworks, they asserted, remains a work in progress. Indeed, there are only a few scientific investigations among the hundreds of studies conducted by the industrial sector. With such a widening gap, shining a light on transaction experience will almost certainly contribute to not only the current literature on marketing and brand management but also to the literature on customer behaviour, innovation, retailing, and management.

However, it is not the case that transaction experience has never been studied; rather, this study has chosen to study this concept from a different perspective. Gupta and Kim (2007) studied the

moderating effect of transaction experience on the decision calculus in online repurchase and found that vendors need to understand the decision calculus of repeat customers at every stage of their transaction experience with the vendor. In their study, transaction experience was just a moderator and not a construct itself. Thus, they claimed that researchers have given little attention to the subject of online customer repurchase decision-making based on transaction experience (Gupta and Kim, 2007). However, they provided no definition or measures for transaction experience. In addition, Hogarth and Einhorn (1992) and Hogarth (1981) studied transaction experience and developed a model that indicates that the impact of perceived convenience and perceived price fluctuate over the length of a transaction, but that the effects of perceived value and enjoyment do not change over the course of the transaction; which is completely different from how this study has chosen to explore transaction experience.

A number of authors who studied transaction experience (Bhattacharjee, 2001; Vhalil et al., 2020; Festinger, 1957; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Kahneman et al., 1986; Purnama et al., 2021) merely shed light on the concept but they neither define or measure transaction experience. A few researchers (Bhattacharjee, 2001; Chalil et al., 2020; Constantinides, 2004; Cho, 2004; Gefen, 2009; Kim et al., 2009; Ling, et al., 2010; Novak et al., 2000; Wu and Wang, 2005; Zaner et al., 2012) have studied transaction experience but only in the online context. Thus, there is a huge gap in the literature in terms of the offline context. In the retail industry, according to Barthel et al. (2015), one of the most important factors is the rising need for a seamless experience across all channels, which includes online, mobile, and in-store sales.

This study explores mainly the offline context (transaction experience at a retail store) but the method can also be used on the online context (retailers' website) if necessary. However, the main contribution of this study is on the brand marketing/ brand management literature, which examines transaction experience from a totally different point of view in contrast to how it has been studied so far. It is very important to study transaction experience, as it is based on the customer-retailer relationship and, as (Alwi, 2007) and Zhang et al. (2010) claimed, the interaction between the consumer and the other customers has a relatively minimal impact on the customer experience. Hence, in this competitive era, without studying each stage of the experience, it is extremely difficult to achieve the optimum customer experience. Hence, there is an urgency to study transaction experience.

The other area of the research explores the concept of transaction-specific brand equity and shows a link between this and transaction experience. While Olsen and Johnson (2003) studied transaction-

specific brand equity, there is no other evidence of this concept in the literature. Therefore, this current study investigates the brand equity construct from a different perspective (transaction-specific perspective) and thus contribute to the marketing and brand management literature. Pine and Gilmore (1999) claimed that providing a unique customer experience can be extremely profitable for businesses (due to the effect on brand equity). Similarly, Hogarth and Einhorn (1992) and Hogarth (1981) claimed that transaction experience is one of the best tools to encourage repeat customers and so to increase brand equity in the retail industry. Farhat (2020) showed the link between customer experience and brand equity and proved empirically the impact of customer experience of brand equity. Meanwhile, Farhana et al. (2021) examined the relationship between the two constructs and demonstrated a positive relationship between them.

According to Bagdare and Jain (2017), measurement of the retail customer experience is a challenging task due to difficulties in description and the lack of any clear definition of the construct and its dimensionalities. Authors (Alwi et al., 2016; Ding and Tseng, 2015; Farhana et al., 2021; Keller and Lehmann, 2006; Sarker et al., 2021; Shahzad et al., 2019) claimed that the relationship between customer experience from various perspectives and brand equity needs examining. Thus, this study tends to study the customer experience from the transaction-specific perspective and in terms of the construct transaction experience. Not only does the study define and provide measures for the construct, but it also shows the link between transaction experience and transaction-specific brand equity from the transaction-specific perspective in order to fill in a huge gap in the existing literature (Gao et al., 2020; Jain, 2017; Ding and Tseng, 2015; Farhat, 2020; Farhana et al., 2021; Sarker et al., 2021; Shahzad et al., 2019).

In today's competitive world, traditional product/service value propositions are no longer sufficient for businesses to reach customers and differentiate themselves. Instead, retailers must place as much emphasis on the customer's transaction experience as they do on the products and services themselves in order to provide a seamless total customer experience for their customers (Alwi, 2007; Carbone and Haeckel, 1994; Hao et al., 2021). It is vital to note, however, that maintaining customer value is not achieved by one element alone but by the total experience of all the elements that make up the overall customer experience, of which transaction experience is only one (Gronroos, 2006).

In order to accommodate this, retailers are repositioning their offerings to include 'personalized co-created experiences' (Prahalad and Ramaswamy, 2004b; Teoh et al., 2021). During the Covid-19 situation, it was crucial to look into every aspect of contact that was made at the retail stores, and

transaction experience of customers was increasingly important not only for the safety during the transaction process but also for the subsequent effect of spreading the virus (Allam and Jones, 2020; Pal and Bhadada, 2020). Hence, it was essential for the retailers to make the transaction experience for their customers as quick, convenient, and enjoyable as they could and balancing out their brand equity at the same time; that could have been gained due to all the positive transaction experiences; hence generate maximum transaction-specific brand equity.

#### **1.4. THE EMERGENCE AND DEVELOPMENT OF THE CONCEPT OF TRANSACTION EXPERIENCE FROM CUSTOMER EXPERIENCE**

As described and explained in the previous sections, transaction experience is one of the touch points or one of the stages of the overall customer experience (Hoyer et al., 2020). Different types of experiences, such as brand experience, shopping experience, product experience etc. make up the total customer experience, and transaction experience is just one element (Becker and Jaakkola, 2020; Groonros, 2006; Hoyer et al., 2020). Without studying each of the stages or steps of customer experience, it is extremely difficult to deliver a perfect total customer experience (Hoyer et al., 2020). Hence, contemporary retailing has progressed from being a transactional buying ritual to providing a pleasurable shopping experience (Jin and Sternquist, 2004). It is portrayed as a chain of events that culminates in a joyful, engaging, calming, rewarding, and enjoyable retail customer experience in the life of the shopper (Arnold et al., 2005; Backstrom, 2011; Cox et al., 2005; Jones, 1999).

A number of studies have investigated purchasing motivations, store selection criteria, and other aspects of the retail experience from the perspectives of economics, psychology, and sociology, among others (Burns and Neisner, 2006; Carpenter and Moore, 2009; Jain and Bagdare, 2009; Terblanche and Boshoff, 2001). The emergence of an experience economy and experiential marketing has brought forth an experiential approach to retailing (Gao et al., 2020; Grewal et al., 2009; Holbrook and Hirschman, 1982; Mehrabian and Russell, 1974; Pine and Gilmore, 1998; Schmitt, 1999; Teoh et al., 2002; Verhoef et al., 2009). Hence, it is important to focus on each of the experiences connected to the overall customer experience (Hoyer et al., 2020).

Coming into contact with or going through (or living through) elements that have sensory, emotional, cognitive, behavioural, or relational values results in different experiences (Schmitt, 1999). Sensory receptors activate the internal mechanism known as customer experience formation when a consumer engages in three stages of value creation: mental processing - both cognitive and emotional;

experiencing value creation; and customer responses. The internal mechanisms that make up the customer service experience, according to Pareigis et al. (2012), are known to be a framework of three constellations of activities and interactions: known as, identifying, sense making, and using. Customers' experiences are created through an interactive process that combines contextual clues and sensory receptors to build a unified whole. Customers use their five senses to interact with the hints, which include sight, hearing, smell, taste, and touch. Cognitive and emotional processing in the brain influence consumer responses, resulting in a wide range of responses.

The term 'customer experience' was coined in the mid-1980s by Holbrook and Hirschman (1982), who proposed a new experiential approach to the area of consumer behaviour. Despite these early works, Pine and Gilmore's book 'The Experience Economy' (1999) and Schmitt's book 'Experiential Marketing: How to Get Customers to Sense, Feel, Think, Act, and Relate to Your Company and Brands' (1999) helped to establish customer experience as one of the main streams of research in the late 1990s.

A holistic view of customer experience is now considered by both academics and practitioners to include customers' cognitive, emotional, sensory, social, and spiritual responses to each and every individual touch point (Bonfanti et al., 2021; Berry et al., 2002; Godovykh and Tasci, 2020; Homburg et al., 2017; Lemke et al., 2011; Meyer and Schwager, 2007; Schmitt, 2003; Toma and Catana, 2021; Verhoef, 2020; Waqas et al., 2021). Consequently, the product or service being sold gives one set of clues, the physical setting provides another set of clues, and the personnel supply yet another set of clues through their gestures, their comments on the product or service, their clothing, and their voice tones. Each hint conveys a message to the buyer by implying some sort of action. The consumer's entire experience is made up of all of the clues that are provided (Berry et al., 2002). Customer experiences bring value to customers, and, over time, managers have been increasingly aware of the importance of providing value in the form of experiences to their consumers (Berry et al., 2002).

As a result, numerous studies (Bonfanti et al., 2021; Berry et al., 2002; Godovykh and Tasci, 2020; Homburg et al., 2017; Lemke et al., 2011; Meyer and Schwager, 2007; Schmitt, 2003; Toma and Catana, 2021; Verhoef, 2020; Waqas et al., 2021) have been conducted since 1999 in an attempt to define customer experience. The customer experience is formed by a series of interactions between a consumer and an object, a company, or part of its organization that results in a reaction (Gentile et al., 2007). The customer's engagement is dependent on a variety of levels (intellectual, emotional, sensual, physical, and spiritual) and is required for this to be successful (Gentile et al., 2007).

According to Meyer and Schwager (2007), customer experience refers to the internal and subjective response that customers have towards any direct or indirect contact with a company or organization. Schmitt (1999) suggested five different experiences: sense, feel, think, act, and relate. Thus, both aesthetics and sensory elements make up the sense experience. Feelings and moods are a part of the feeling experience. Convergent/analytic and divergent/imaginative thinking are part of the thinking experience. Motor activities and behavioural experience are referred to as act experience. Customer experience has three dimensions, according to Verhoef et al. (2009) and Schmitt's (1999) five-experience model. The aesthetics and sensory perceptions of the shopping area, ambience, products, and service are all referred to as a sensory experience. The moods and emotions that arise during a shopping journey are called emotional experience. The importance of social interactions and society is emphasized by social experience.

Experience is used to describe how a corporation uses services as the stage and goods as props to engage individual customers in a way that results in a significant event that they will remember. Therefore, no two people will ever have the same experience because each one is dependent on the interaction between a staged event (such as a theatrical play) and the individual's mental state, which is unique to that individual (Popa and Barna, 2013). In addition, Hoyer et al. (2021) claimed that the overall customer experience is formed by different experiences at various stages and touch points in a retail store. According to the authors, the different stages of experience are as follows.

***The Brand Experience*** – A customer has preconceived assumptions about two types of brands when they enter a retail environment: the retail brand (for example, Starbucks) and the manufacturer or service brand that is sold in retail outlets.

***The Price Experience*** - A retailer's pricing strategy has a significant impact on their bottom line. The other three Ps (product, place and promotion) create value for the seller, and the fourth P, pricing, is responsible for capturing that value. Furthermore, this is the only P that earns revenue for the retailer.

***The Promotion Experience***- Consumer promotions include things like in-store displays, loss leaders' price, and promotions, to name a few examples. In meta-analyses, it has been found that the initial increase in sales of a promoted item is significant.

***The Location Experience*** - Academics and practitioners in the retail industry appear to consistently emphasize the importance of 'location' as the most important factor in achieving success. Because consumers place a high value on their time, researchers should investigate what it would take in terms of price savings and deals to persuade them to shop at a factory outlet store (which is often located a considerable distance away) rather than a similar store in a more convenient location.

***The Service Mix Experience*** - Consumer service refers to an organization's ability to consistently supply what a customer wants and requires.

***The Atmosphere Experience*** - Consumers' purchase decisions are influenced significantly by the ambience of a business and the mood of its customers. Customers want store layouts that maximize the number of products visible in accordance with the customer's product requirements. More sales result from positive feelings, especially when products are displayed in a way that emphasizes the product's potential utility for the buyer.

In addition, during their buying or consumption process, customers can undergo different experiences, namely, product experience, brand experience, shopping experience, retail customer experience, service experience, and consumption experience. Alternatively, the experience could be at a completely different level, such as online customer experience and transaction experience. To define or understand the concept of transaction experience, other types of experiences were explored such as the following.

***The product experience*** - Customers' interactions with objects, such as searching for, analysing, and evaluating them, are referred to as product experiences (Hoch, 2002). Product experience can be defined as "the entire set of affects that is elicited by the interaction between a user and a product, including the degree to which all our senses are gratified (aesthetic experience), the meanings we attach to the product (experience of meaning) and the feelings and emotions that are elicited (emotional experience)" (Hekkert, 2006, p. 160).

***The brand experience*** - The consumer's awareness and familiarity with a brand or category is measured by their experience with it (Alba and Hutchinson, 1987). Brand experience is a comprehensive experiential notion that explains all of a customer's experiences with a particular brand, as opposed to affective, evaluative, and associative brand constructs like brand participation, brand attachment, brand attitudes, and brand personality (Alloza, 2008). Unlike traditional product features or benefits, brand experience has a long-term impact on customer perceptions (Chase and Dasu, 2014).

***The sensory experience*** - According to the International Service Quality Association (Brakus et al. (2009), a sensory experience is a person's subjective view of goods, services, or other parts of a service process as an image that challenges the mind and senses. Brooks et al. (2009) identified product, shopping, and service experiences, as well as consuming experiences, and concluded that all of these experiences, whether directly or indirectly, have an impact on customers.

***The online experience*** - Both cognitive and emotive states are included in the online brand experience idea (Mollen and Wilson, 2010; Thomas and Veloutsou, 2013). Research has explored the hedonic features of brand experience (Hausman and Siekpe, 2009) as well as the integration of the two states (Lin et al., 2008). Thomas and Veloutsou (2013) explained the online brand experience as “an individual’s internal subjective response to the contact with the online brand” (p. 22).

Considering all the definitions and conceptualisations of various types and forms of experiences, the transaction experience is defined in this study as a set of transaction-specific interactions between a customer and the product/service provider (Terblanche and Boshoff, 2002; Gentile et al., 2007; Hoch, 2002; Kerin et al., 1992; Meyer and Schwager, 2007), which provokes a reaction (Gentile et al., 2007) involving cognitive, affective, emotional, social (Bolton et al., 2014; Brakus et al., 2009; Gentile et al., 2007; Meyer and Schwager, 2007; Shilpa and Rajnis, 2013), behavioural and physical (Bolton et al., 2014; Meyer and Schwager, 2007; Pine and Gilmore, 1998; Shilpa and Rajnis, 2013) responses evoked by transaction-related stimuli such as enjoyment, ease, and speed of transaction (Brakus et al., 2009).

## **1.5. RESEARCH OBJECTIVES AND RESEARCH QUESTIONS**

Given the implication and the importance of transaction experience and based on the evidence discussed, it is useful to investigate the concept further in order to complement existing studies. Transaction experience is one of the most important aspects of customer experience that needs to be investigated, especially in today’s day-to-day busy lifestyle of the customers (Bonfanti et al., 2021; Hoyer et al., 2021; Pine and Gilmore, 1998; Schmitt et al., 2015). According to researchers (such as Bagdare and Jain, 2017; Jain et al., 2017; Hoyer et al., 2021; Toma and Catana, 2021; Verhoef, 2020), the scope and contexts of customer experience, such as transaction experience, need to be examined. The authors (Bagdare and Jain, 2017, Jain et al., 2017, Hoyer et al., 2021, Toma and Catana, 2021, Verhoef, 2020) further claimed that a number of efforts have been made to define and conceptualize customer experience and understand its relationships with a wide range of variables, yet there is no



consensus about the construct and definitions for some of the variables, such as transaction experience. According to them, theoretical frameworks are yet to be developed and validated. This research attempts to take this gap and explore the answers; it aims to uncover the concept of transaction experience, define it, and show its impact on transaction-specific brand equity in the context of the retail industry.

According to marketing literature, there has been little systematic research on transaction experience and its outcomes (Bagdare and Jain, 2017; Chalil et al., 2020; Dennis et al., 2014; Foroudi et al., 2018; Jain et al., 2017; Manhas and Chauhan, 2017; Ngo and O'Cass, 2013; Purnama et al., 2021). This study can be called the first attempt at collecting empirical evidence to prove that a positive transaction experience has a favourable impact on transaction-specific brand equity. This study aims to explore consumers' perceptions and practices regarding transaction experience and the main factors that influence transaction experience suitability at a consumer level. Additionally, the study investigates the role of transaction experience on consumer perception. Based on the research objectives, this study aims to answer the following two research questions:

Research Question 1: What is the aftermath of a positive transaction experience?

Research Question 2: How does transaction experience affect transaction-specific brand equity?

This research investigates transaction experience and four objectives, which address the general research goals are: first, it explores the concept of the transaction experience and its dimensions. Second, it identifies the factors that are most likely to have a significant influence on a positive transaction experience and explores the measures for transaction experience considering the construct as a latent/dependent variable. Third, it develops and empirically assesses a conceptual framework concerning the relationships between a positive transaction experience and its outcomes and consequences. Finally, it investigates the impact of a positive transaction experience on transaction-specific brand equity. Despite the significant role of a favourable transaction experience for retailers, little empirical research has been conducted on how the transaction experience should be chosen and portrayed to obtain specific communication objectives. By achieving these objectives, it is expected that the investigation will add to current knowledge regarding transaction experience and provide practical insights for retail management. In the next section, the research design and the method used in this study will be discussed.

## **1.6. RESEARCH METHODOLOGY AND ANALYTICAL TECHNIQUE**

This study uses the two paradigms of positivism and idealism, which is believed to be in line with the growing popularity of both paradigms in marketing research in recent decades. Exploratory interviews (Chisnall, 1991; Churchill, 1979; Connel and Lowe, 1997; Nakash, 2021; Palmer, 2011; Swedberg, 2020) and follow-up focus groups (Elghannam et al., 2020; Nuttavuthisit, 2019) contribute qualitative information to this study, which is predominantly quantitative. This study was chosen because of the underdeveloped nature of the field of study (Bagdare and Jain, 2017; Jain et al., 2017); as a result, retail stores were chosen as the industry to evaluate, and contactless technology experience was chosen as the context for data collection (Alwi et al., 2016; Bhattacharya and Elsbach, 2002; Dutton and Dukerich, 1991; Elsbach and Bhattacharya, 2001; Swedberg, 2020). Qualitative researchers (Baker, 1994; Churchill, 1979; Deshpande, 1983; Saunders et al., 2007), can use information from interviews to achieve the following:

- 1) obtain the necessary data and gain a better understanding of the phenomena
- 2) revise and fine-tune their research hypotheses and conceptual framework
- 3) make the questionnaire measures more precise
- 4) increase the validity of the findings as well as the depth of the conclusion

First and foremost, this study begins with an idealist paradigm, focusing on qualitative techniques, because there is a lack of understanding of what constitutes a 'positive transaction experience' and its relationship to transaction-specific brand equity; both of these concepts require further definition (Alwi et al., 2016; Saunders et al., 2007). As a result, this study follows Churchill's (1979) paradigm, in which information is gathered in the first phase of the study utilizing a qualitative paradigm.

After conducting a literature review, the researcher conducted in-depth interviews with key informants (such as retail managers, marketing managers, and brand managers) as well as focus group discussions with academics, researchers, MBA students, retail workers, bus drivers, and consumers to assess the instrument's design and scale validity (Foroudi, 2013; Gupta et al., 2011). The NVivo software was used as a part of analysis of the qualitative data. It was used to code and extract information from the interviews and focus groups the researcher had conducted in order to undertake qualitative data analysis. After the qualitative study, the researcher revised the conceptual model accordingly before undertaking the quantitative study. Qualitative methods were applied in combination with quantitative

methods to examine a domain that is unknown or has received relatively little attention to date (Deshpande, 1983). Hence, quantitative methods were employed for the next phase of the research.

The second phase of the current study undertook a positivist paradigm (i.e., a quantitative method) in order to test the proposed hypotheses. It also helped to test the causal relationships between these hypotheses and the scale validation. Based on the qualitative and quantitative assessment of the questionnaire, scales were purified. The next step was to recruit a number of academics to satisfy the content validity of the measures and to evaluate and assess the items generated from the qualitative research. The academics removed some unnecessary measures to ensure that the items were representative of the scale's domain (Beck, 2020; Carmines and Zeller, 1979; De Vaus, 2002; DeVellis, 2003).

The next step was to undertake a pilot study before launching the main survey. Therefore, a self-administered questionnaire was distributed to measure consumers' perceptions of transaction experience and its impact on transaction-specific brand equity in the UK, and data collection was undertaken in the context of contactless technology (Afrianto et al., 2021; Trütsch, 2020), as this modern technology has been a significant factor in the success of transactions at checkouts (Gupta and Narayan, 2020; Shankar et al., 2021) and especially during/after the Covid-19 pandemic, where contactless payment has gained much attention at retail checkouts (Fadilla, 2021; Morrisons et al., 2023; Puriwat and Tripopsakul, 2021; Thaleba et al., 2023).

A questionnaire with a 7-point Likert scale was designed which ranged from (1) strongly disagree to (7) strongly agree was used to provide satisfactory properties that were related to the primary distribution of responses (Bagozzi, 1994; Rubin et al., 2020). This research studies the perceptions of retail consumers in the UK who had knowledge of contactless technology or had used contactless pay at least once. London was chosen for the data collection unit of analysis due to a number of reasons. Firstly, it is one of the busiest cities in the world (McMillan, 2020; Taylor and Derudder, 2021) and people living in here seem to be always in a rush and trying to save time whenever possible (Maxim, 2020). It has been evident that saving time would not only make customers happy but would also gain competitive advantage for retailers in the UK (Holm et al., 2018).

Secondly, London was chosen for data collection as it is considered as one of the smartest (in terms of technology adoption) cities of the world (Stone et al., 2021). It was in one of the most rapidly developing countries in the world, and it has adopted contactless technology to make transaction

experiences faster, more convenient, and more enjoyable more than in any other countries (BBC News, 2021; London, 2021). The process of adopting contactless payment was inevitable in London when Transport of London (TFL) announced cashless bus travel for Londoners (Budd and Ison, 2021).

Thirdly, since London is one of the most multi-cultural cities, the prospects of global and local retailers are higher than in any other countries or cities, and hence, the concept of transaction experience is more meaningful in this city (BBC Reports, 2022; Holm et al., 2018). The survey was given to individuals who were living, working or studying in London and who had basic knowledge about contactless technology. Banks, the Royal Mail, the London Underground, and retail stores were considered as research settings from which 550 completed questionnaires were collected. These settings were selected as customers face long queue at those settings and hence, the chance to receive more responses is increased. However, the initial plan for a face to face to face data collection was disrupted due to the pandemic, which was especially sever during 2019/2020; therefore, a large proportion of data collection relied upon online sources. As a substitute, telephone interviews, Google forms in social media, e mails, and other direct marketing methods were implemented until the Covid situation had improved, after which face to face data collection resumed again.

After the completion of data collection, quantitative data analysis was undertaken. Among 550 questionnaires received, a complete 500 questionnaires were finalised for the purpose of quantitative analysis. At first, the descriptive statistics for the complete sample were calculated using a social science statistical tool (SPSS). Exploratory factor analysis (EFA), a foundational approach, and coefficient alpha were employed in the early stages of this research to test for scale validity (Aaker, 1997) and to help limit the number of observed research indicators, in accordance with Churchill's (1979) guidelines (Chandon et al., 1997; Hair et al., 1998; Hair et al., 2021). Following the SPSS analysis, a Partial Least Square (PLS) 3.3.5 statistical software was used to evaluate the quality of the measurement model and test the causal relationship between the constructs and structural equation modelling (SEM). SEM is a well-known modelling approach for testing marketing hypotheses (Hair Jr et al., 20201; Steenkamp and Baumgartner, 2000).

Next, a two-step plan was implemented using Anderson and Gerbing's (1988) two-stage technique. To begin with, a confirmatory factor analysis (CFA) was performed to allow for a more rigorous assessment of construct unidimensionality; each subset of items was internally consistent; the constructs were verified using measurement models, while each subset of items was internally consistent and the constructs were verified using measurement models (Foroudi, 2013; Gerbing and

Anderson, 1988). The structural model fit was tested using goodness-of-fit indices in the next stage, and routes connecting the constructs were created at the same time to test the study hypotheses.

### **1.7. STATEMENT OF SIGNIFICANCE**

This study aims to add another thread of the research, to gain a better understanding of the transaction experience concept, as well as identifying the most appropriate definition and measures. The results of this research extend to the issues of retail management. Furthermore, this study makes significant theoretical, methodological, managerial, and social contributions (for the details of this section see Chapter 8, Section 8.2 on the implications of research the findings).

The empirical findings which are stated not only extend previous findings in transaction experience-related research but also contribute to research on the overall customer experience area, other types of experiences in retail management, consumer behaviour, marketing, branding, and e-commerce business literature. This research advances the existing view of the transaction experience concept, its definition, its measures, and the possible outcomes. Bridging the gaps found in the literature is the key contribution of this research, i.e., *What is the aftermath of a positive transaction experience? How does transaction experience affect transaction-specific brand equity?*

Some of the gaps in the literature that existed are noted as following:

1. There exists a lack of empirical research into how transaction experience is defined and measured (Bagdare and Jain, 2017; Chalil et al., 2020; Gupta and Kim, 2007; Jain et al., 2017, Purnama et al., 2021; Witell et al., 2020).
2. Little is known about the relationship between transaction experience, its dimensions, and its consequences (Dennis et al., 2014; Foroudi, et al., 2018; Kursan Milaković, 2021; Manhas and Chauhan, 2017; Mandler et al., 2021; Manthiou et al., 2020; Ngo and O'Cass, 2013).
3. The marketing literature has no systematic study on the effect of transaction experience on consumer evaluations of experience (Dennis et al., 2014; Hoyer et al., 2020; Manthiou et al., 2020; Witell et al., 2020; Zhang et al., 2010).

4. There is a lack of explanatory models and theory building studies in the area of transaction experience (Bagdare and Jain, 2017; Chalil et al., 2020; Jain et al., 2017; Kolotylo-Kulkarni et al., 2021; Peifer and Tan, 2020; Rivard, 2020; Rifi and Mostafa, 2021).
5. The studies showing the impact of customer experience on brand equity (Biedenbach and Marell, 2010; Bill Xu and Chan, 2010; Ou et al., 2020; Pina and Dias, 2021; Rifi and Mostafa, 2021; Rizwan et al., 2021; Slaton et al., 2020) have not been tested and validated in the transaction-specific context to date.

This study suggests a definition and measures for transaction experience and shows the relevant mechanisms underlying the associations between transaction experience, its outcomes, and transaction-specific brand equity in the UK and in the context of contactless technology. Therefore, this research contributes to existing knowledge by extending findings in previous studies. For example, several researchers (Bhattacharjee, 2001; Festinger, 1957; Gupta and Kim, 2007; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Jain et al., 2017; Purnama et al., 2021) have investigated transaction experience, but they have never presented any definition or measures for this concept. In addition, some scholars (Bagdare and Jain, 2017; Hogarth and Einhorn, 1992; Olsen and Johnson, 2003) who studied transaction experience (or customer experience) and transaction-specific brand equity (or brand equity) have rarely examined the relationship between transaction experience and transaction-specific brand equity.

Although some scholars (Bank, 2021; Bhattacharjee, 2001; Chalil et al., 2020; Constantinides, 2004; Cho, 2004; Gefen, 2009; Kim et al., 2009; Ling et al., 2010; Novak et al., 2000; Purnama et al., 2021; Wu and Wang, 2005; Zaner et al., 2012) studied transaction experience, it was only in the online context but the offline concept of transaction experience was not explored as much. This study will therefore contribute to bridging the gap since the notion of transaction experience will be valid from both an online and offline perspective, with a focus on the offline concept to help fill the gap in the literature. The current study's theoretical contributions to existing knowledge provide new perspectives on transaction experience and establish it as a construct in the literature.

This study claims to be the first empirical research to define transaction experience and validate measures for the construct. The research is also able to help redefine and regenerate; research into the

area of the overall customer experience. Hence, it adds to the customer experience, retailing, e-commerce, marketing and branding literature by developing and testing a scale that specifies the sphere of influence of the transaction experience and its influence of transaction-specific brand equity. In addition to the scale developed for transaction experience, this research considered structural equation modelling (SEM) to test the relationships among the constructs and validate the conceptual model.

This study, therefore, contributes to the extension and solidification of the understanding of the transaction experience in order to strengthen the relationship between transaction experience and its outcomes and linking it with transaction-specific brand equity. Furthermore, this study provides understanding of the research constructs' dimensionality and the operationalization of the research concepts from the perspective of consumers. The theoretical contribution thus offers: theory extension by empirical testing, verification of the conceptualisation, measurement of the constructs, and theory testing and generalisation.

In terms of methodology, this research used a multi-disciplinary approach to the transaction experience concept as a main contribution of this study to provide a holistic perspective of the domain in customer experience literature (e.g., Dennis et al., 2014; Foroudi, et al., 2018; Gentile et al., 2007; Hoyer et al., 2021; Jain 2017). A two-phase multi-disciplinary approach was adopted:

- (i) A qualitative approach was used to collect data.
- (ii) A self-administered questionnaire was distributed to ensure more comprehensive data collection procedures, and then, structural equation modelling as a sophisticated data analysis technique was performed.

As a result, the study has the potential to contribute significantly to marketing theory. The value of transactional experiences has been recognized by the authors of marketing literature (Bagdare and Jain, 2017; Chalil et al., 2020; Gupta and Kim, 2007; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Jain et al., 2017; Purnama et al., 2021). The contribution is to offer a broader view of transaction experience and its outcomes in a transaction-specific concept as well as to investigate whether the incorporation of the transaction experience influences transaction-specific brand equity from the consumers' perspective. This is one of the first studies to date to empirically validate that the transaction experience has an impact on transaction-specific brand equity.

This study makes some very significant contributions to knowledge. Its major contribution is towards filling in the gaps that exists in the literature, i.e., ‘What is the aftermath of a positive transaction experience?’ and ‘How does transaction experience affect transaction-specific brand equity?’ The main aim of this study was to establish transaction experience as a construct and define and measure it, while an additional aim was to study ‘transaction-specific’ outcomes and analyse the implications for transaction-specific brand equity.

This research defines and measures transaction experience, which was missing from the literature, and it examines the outcomes of transaction experience and its ultimate impact on transaction-specific brand equity. Therefore, the focal construct of this study was transaction experience (in the light of contactless technology), and the final outcome was transaction-specific brand equity in the context of consumers’ perspective. This study treated transaction experience as a second order variable and viewed it as a formative variable which is dependent on other variables. It is measured in a formative manner through other lower order variables.

As mentioned above, because transaction experience is treated as a formative variable and measured in a formative manner, the conceptual model has very important implications. The model is further complicated because the rest of the variables are measured in a reflective manner. Needless to say, this study tested a very complex conceptual framework and tried to analyse both formative and reflective variables at the same time, which was a challenging but worthwhile contribution.

Hence, due to the complex nature of the model, it had to be analysed in a different manner unlike the general and most common ways used by other researchers (Hair Jr et al., 2021). The other major implication of this research stems from the use of SEM using a sophisticated data analysis technique, namely, PLS version 3.3.5, to examine the overall conceptual framework/ in contrast, the majority of the researchers have tended to use AMOS during SEM (CB-SEM).

PLS-SEM has become one of the most prominent statistical analysis techniques being used today; it has been applied in some of the top marketing and strategic brand management journals where complex models were involved (Hair et al., 2021). PLS-SEM has helped in allowing the simultaneous modelling of multiple layers and in answering the set of interconnected research questions in a single accurate model in a systematic manner (Chin et al., 2010, Hair Jr et al., 2021, Hult et al., 2018; Kline, 2011). This type of analysis enables researchers to pursue research opportunities in a new and different way



(Hair Jr et al., 2021). The justifications for using PLS are detailed in chapter 6 and chapter 8. Therefore, some of the very major methodological implications are evident for this study.

In terms of managerial implications, the results of this research have a number of implications for retail managers. This research offers managerial contributions for decision-makers, business developers, advertisers, and retail management who wish to understand the whole concept of transaction experience, which is a very important element of the entire customer experience journey (Gentile et al., 2007; Iman and Borimnejad, 2017; Nasar et al., 2021; Singh et al., 2020; Vuckovac et al., 2017). Most importantly, this study suggests that retail managers should comprehend that the concept of transaction experience is an important but complex phenomenon. It advocates that a manager should be cautious about managing their customers' transaction experience journey. On the other hand, studying transaction-specific brand equity is very important when it comes to retail management (Alwi et al., 2016). Ajour et al. (2021), Hogarth and Einhorn (1992), and Hogarth (1981) claimed that transaction experience is one of the greatest tools to differentiate repeat customers in order to increase brand equity in the retail industry.

For retail management, having an in-depth knowledge of transaction experience with new technology, such as contactless pay, is likely to boost their profits and reduce queuing time, resulting in efficient customer management. Thus, companies and the management would acknowledge the importance of transaction experience, which could not only produce happy customers but also contribute to an increased transaction-specific brand equity for them. On the other hand, high brand equity levels are known to lead to higher consumer preferences and purchase intentions (Alwi et al., 2016; Cobb-Walgren et al., 1995; Corkum et al., 2021; Vinh and Phuong, 2020) as well as higher stock returns (Aaker and Jacobson, 1994; Ajour et al, 2021) and an increased customer loyalty (Joseph et al., 2020; Jeon and Yoo, 2021), which is the most wanted element for any organisation.

Moreover, the study identified the critical factors needed to achieve a favourable transaction experience. Hence, the findings of this study are of utmost importance to customer management decision-makers, as they play a significant role designing and managing the total journey of a customer (customer experience). Managers need to carefully orchestrate the main factors, such as speed, convenience, and enjoyment that contribute to a favourable transaction experience. Furthermore, there are implications for advertising and marketing managers: in order to survive there must be more awareness of the need for making their customers transaction quick, convenient and enjoyable.

Moreover, managers should place more emphasis on the transaction experience as an excellent way for a retailer to gain added value and obtain a competitive advantage over others. Meanwhile, for brand management, it would be easier for them to position and maintain the brand reputation of their business and manage the brand equity evenly (Mahmood and Bashir, 2020; Wang et al., 2020). Regarding brand management, this study aims to contribute a new concept of brand equity. Brand equity is one of the most important (intangible) assets for any business (Hariharan, et al., 2018; Worku, 2021) and managing and understanding the concept from every angle and in detail is crucial in the competitive market. For marketing managers, the new concept of transaction experience makes a significant contribution to customer experience management and an excellent starting point to analyse and design the customer experience overall (Chylinski et al., 2020; Hoyer et al., 2020) and to create and design promotional strategies accordingly.

Nevertheless, there are certain social aspects of this study in terms of creating a fast, convenient, and enjoyable transaction experience for retail customers; after realising the impact of a positive transaction experience and its effect on transaction-specific brand equity, retailers are likely to be even more concerned about making the transaction experience for each of their customers as positive an experience as possible to achieve a greater impact on their transaction-specific brand equity. On the other hand, the society would enjoy a positive transaction experience with the latest technology such as contactless etc., which is likely to result in a modern and technology-oriented society where people can enjoy a hassle free, speedy, and convenient lifestyle, and this is likely to add to their self-esteem and social value (Davis, 1989; Hao, 2021; Rahimizhian and Irani, 2020; Venkatesh, 2003).

Hence, the findings of this research have ramifications in the domain of retail management in addition to the implications for the existing literature. Furthermore, this study contributes to the subject of business administration and management in significant theoretical, methodological, managerial, and social aspects. The empirical findings of this research will contribute to the study of the entire customer experience as well as to other types of experiences explored in the e-commerce business literature, branding, marketing, consumer behaviour, and retail management, among other fields, in addition to previous findings in the transaction experience-related research. It would be possible to be able to add to the current understanding of the transaction experience idea, including its definition, measures, and intended outcomes, as a result of this research. The next section presents the definitions of each of the constructs adapted to this study.

## 1.8. CONSTRUCT DEFINITIONS

This study looks into transaction experience and transaction-specific outcomes from a different perspective as described above. Since most of the transaction-specific outcomes were not defined or studied in the past, it was important to define each of them at the beginning of the study. The definition of each transaction-specific construct related to this study is presented below. In addition, the definition of transaction experience and of transaction-specific outcomes are customised to the conceptual model, and hence, this study defines them as presented below.

**Transaction experience** is defined as a set of transaction-specific interactions between a customer and the product/service provider (Gentile et al., 2007; Hoch, 2002; Kerin et al., 1992; Meyer and Schwager, 2007; Terblanche and Boshoff, 2002), which provokes a reaction (Gentile et. al., 2007) involving cognitive, affective, emotional, social (Bolton et al., 2014; Brakus et al., 2009; Gentile et al., 2007; Meyer and Schwager, 2007; Shilpa and Rajnis, 2013), behavioural, and physical (Bolton et al., 2014; Meyer and Schwager, 2007; Pine and Gilmore, 1998; Shilpa and Rajnis, 2013) responses evoked by transaction-related stimuli such as the enjoyment, ease, and speed of transaction (Brakus et al., 2009).

**Perceived transaction speed** is defined as the extent to which the prospective user of NFC has perceived that use of the NFC (Chen, 2008; Teo et al., 2015) has allowed them to save time (Collier and Sherrell, 2010; Dabholkar, 1996) and has improved the speed of the transaction (Chen, 2008; Davis et al. 1992; Nguyen et al., 2018; Teo et al., 2015) during the transaction experience.

**Perceived transaction convenience** is defined as the extent to which the prospective user of NFC perceives that use of the NFC has allowed them to undertake the transaction with speed and ease (Berry et al., 2002; Chen et al., 2018; Collier and Sherrell, 2010; Duarte et al., 2018 Gupta and Kim, 2007; Seiders et al., 2000) and has increased convenience (Chen, 2008; Chen et al., 2018; Teo et. al., 2015) during the transaction experience.

**Perceived transaction enjoyment** is defined as the extent to which the prospective user of NFC perceives the transaction to be enjoyable in its own right, apart from any performance consequences that may be anticipated (Bedi et al., 2017; Davis et al., 1992; Gumussoy, 2016; Heijden, 2004; Lee and Tsai, 2010; Park et al., 2012; Venkatesh, 2000; Zhou and Feng, 2017) during their transaction experience.

**Transaction-specific satisfaction** refers to a customer's post-transaction evaluation and assessment of the prior transaction experience (Anderson et al., 2004; Cadotte et al., 1987; Fornell, 1992; Kim, 2005; Labarbera and Mazursky, 1983; Oliver, 1997; Shankar et al., 2003) to form the norms of transaction-specific retail performance (Cadotte et al., 1987; Labarbera and Mazursky, 1983; Lee et al., 2018; Lien et al., 2017; Sulphrey and George, 2017).

**Transaction-specific reputation** is the customer's overall evaluation of a firm (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017; Weiss et al., 1999), based on his or her dis/satisfactory reactions to the firm's communication activities followed by the transaction experience (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017).

**Transaction-specific perceived value** is the overall assessment (Zeithaml, 1988) of customers' perceived benefits and customers' perceived sacrifices of a transaction with the product/service provider (Day, 2000; Gupta and Kim, 2007; McDougall and Levesque, 2000; Oliver and De Sarbo, 1988; Zeithaml, 1988) jointly formed through consumers' transaction experience (Gupta and Kim, 2007; Prebensen and Xie, 2017; Shechter, 1984).

**Transaction-specific trust** is defined as the confidence (Ballester et al., 2003; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994), trustworthiness (Ballester and Alemán, 2005), and reliability (Ballester et al., 2003; Chaudhuri and Holbrook, 2001; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994) that one will find what is desired from a transaction rather than what is feared (Deutsch, 1973).

**Transaction-specific performance** is defined as the consumer's judgment about a retailer's fault and hassle-free transaction experience and the overall perceived effectiveness of the transaction (Hult et al., 2008; Lassar et al., 1995; Punjaisri and Wilson, 2017; Venkatraman and Ramanujam, 1986).

**Transaction-specific brand personality** is defined as the set of human characteristics associated with a transaction/payment method (Aaker, 1997; Grohmann, 2009) mostly in a symbolic way to differentiate the organization providing the transaction experience from its competitors (Aaker, 1996; Conejo et al., 2017; George and Anandkumar, 2018; Liao et al., 2017) so as to deliver a vivid and more personal meaning to the consumers (Biel, 1993; Keller, 1993; Keller and Richey, 2017; Sigauw et al., 1999).

**Transaction-specific associations** are the informational nodes linked to the brand node in memory (Aaker, 1991; Emari et al., 2012; Füller and Bilgram, 2017; Keller, 1998) that contains the meaning of the brand/payment instrument (Keller, 1998), including the payment procedure of the company, and is related to the information (Emari et al., 2012; Osselaer and Janiszewski, 2001) on what is in the customer's mind about their entire transaction experience (Emari et al., 2012; Keller, 1998).

**Transaction-specific brand equity** is the differential effect (Barwise 1993; Keller, 1993; Keller and Brexendorf, 2017) that retail brand knowledge (from the transaction experience) has on consumer response to the marketing of that retail brand (Keller, 1993; Keller and Brexendorf, 2017) and the added value to that retail brand perceived by a consumer (Aaker, 1991; Broniarczyk and Alba 1994; Keegan et al., 1995; Park and Srinivasan 1994).

## **1.9. ORGANISATION OF THIS THESIS**

This thesis is arranged into eight chapters, as well as appendices and references. The thesis is structured as follows:

### **Chapter 1. Introduction**

The first chapter is the introductory chapter which reviews the importance, the aims, and the method and the methodology that are adopted for this study. It then presents the contribution of the study.

### **Chapter 2. Literature review**

The purpose of this chapter is to review the appropriate literature pertaining to transaction experience studies from a variety of different research viewpoints. Following this, transaction-specific outcomes from transaction experience are presented. This chapter also discusses the theoretical underpinnings of transaction experience and transaction-specific brand equity as well as the application of these theories.

### **Chapter 3. Conceptual framework and research hypotheses**

This chapter portrays the conceptual model and describes the development of hypotheses. The measures for transaction experience are also explained at the preliminary stage. This chapter presents the initial conceptual framework formulated through the literature review.

### **Chapter 4. Methodology and research design**

Both the research methodology and the data analysis methodologies that were employed in the study are discussed in detail. The assumptions that underpin the data analysis techniques and statistical software packages are highlighted and addressed in this section.

### **Chapter 5. The qualitative findings**

Throughout this chapter, the findings of the qualitative investigation are discussed. At the end of the chapter, a revised conceptual model is presented.

### **Chapter 6. Quantitative data analysis**

This section describes the quantitative data outcomes as well as the decisions of the scale development and purification.

### **Chapter 7. Discussion**

Results from both the qualitative and quantitative studies are discussed in this chapter. The step-by-step data analysis comparison between mixed methods along with the information from the literature are presented in detail. The results of scale reliability and validity testing are also presented in this chapter.

### **Chapter 8. Conclusion**

The overall summary of the thesis is unveiled in this chapter. The prominence of the findings and the implications are addressed along with the limitations of the research. In addition, suggestions and directions for further research based on the current findings are also outlined.

The appendices and the references are also included at the end of the concluding chapter.

The next chapter presents an extensive review of literature with the relevant references.

# Chapter 2: LITERATURE REVIEW

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## 2.1 INTRODUCTION

This chapter provides an extensive literature review stating all relevant theories to support the conceptual model designed in the next chapter. This section 2.1, outlines a brief introduction. Section 2.2 discusses the focal construct transaction experience and explores the customer experience paradigms, concept, meaning, and definitions, followed by the concept and definition of transaction experience. Section 2.3 discusses how transaction experience can be measured and section 2.4 outlines contactless technology. Section 2.5 discusses the Technology Acceptance Model (TAM) and extensions of TAM. In the next section 2.6, the transaction-specific outcomes are discussed. Section 2.7 talks about the outcome of the research model, transaction-specific brand equity followed by various concepts of brand equity by different researchers, while Section 2.8 discusses about the two most explored theories of brand equity, namely, customer-based brand equity (CBBE) and Keller and Aaker's theory of brand equity. Finally, Section 2.9 provides a brief summary of the chapter.

## 2.2 TRANSACTION EXPERIENCE

The concept of transaction experience stems from the customer experience construct but is rarely dealt with specifically in the literature, though it has been studied by a number of authors (Chalil et al., 2020; Herz and Taubinsky, 2018; Hoyer et al., 2020; Lagiewski and Perotti, 2023; Purnama et al., 2021). Hogarth and Einhorn (1992) and Hogarth (1981) developed a model of transaction experience that demonstrates that the effects of perceived convenience and perceived price change over time but that the effects of perceived value and pleasure do not change over time. Gupta and Kim (2007) studied the moderating effect of transaction experience on repurchase decision, where transaction experience played the role of a moderator although it was not measured as a separate construct. Furthermore, some authors (Bhattacharjee, 2001; Cho, 2004; Gefen, 2009; Kim et al., 2009; Li et al., 2023; Ling et al., 2010; Offiong, 2023; Purnama et al., 2021; Wu and Wang, 2005; Zaner et al., 2012) have studied transaction experience in the online context.

However, no researchers have explored transaction experience in depth and some have only used the idea to support their study. Therefore, there is no definition or measures of transaction experience in the literature although the concept is 'understood' by authors. Hence, despite conducting an extensive literature review, the researcher found no solid definition of transaction experience. Thus, a paper explaining the concept of transaction experience (as far as technological/innovative payment method

is concerned) is important for contributing to the literature (Berry et al., 2006; Gupta and Kim, 2007; Li et al., 2023; Prahalad and Ramaswamy, 2003; Meyer and Schwager, 2007; Schmitt, 2010) and could be very useful for retailers and business managers. It is possible that the examination of the influence of transaction experience on brand equity will improve the knowledge of this idea, as brand equity is one of the most important ideas for businesses and their managers to understand (Aaker, 1991; AbdGhani et al., 2021; Cobb-Walgren et al., 1995; Hutton, 1997; Kalhor et al., 2021; Kapferer, 2008; Keller, 1993; Keller and Lehmann, 2006; Lassar et al., 1995; Rizwan et al., 2021; Severi and Severi and Ling, 2013).

The idea of transaction experience is investigated in this study with the goal of developing a firm definition and establishing measures for the construct. Since no definition or measures for this construct were found in the literature review, the study treated transaction experience as a formative variable (second order variable) that is dependent on certain factors, which are explained in the following sections. To study transaction experience, it is essential to examine the bigger picture of customer experience, as several authors and scholars (Berry et al., 2006; Dubberly and Evenson, 2008; Gronroos, 2006; Hodgkinson et al., 2021; Tom Dieck et al., 2021; Zomerdijk and Voss, 2010) have claimed that customer experiences comprise numerous phases encounters at discrete 'touch points' and so can be thought of as clusters of experiential aspects that support product or service experiences and that transaction experience is one of them.

In contrast, other researchers have suggested that there are various stages and types of customer experience, as customer experience includes all types of experiences (Rowley, 1999; Schmitt, 1999; Verhoef et al., 2009). The following section examines the different types of experiences, which resulted in studying transaction experience as a separate construct of customer experience with different types and forms.

### **2.2.1 Customer Experience(s)**

According to the work of Kotler (1967), Howard and Sheth (1969), customer experience has been included in significant marketing and consumer behaviour theories since the 1960s. Researchers such as Berry et al. (2002), Gentile et al. (2007), Holbrook and Hirschmann (1982), Homburg et al. (2017), Kranzbühler et al. (2018), Meyer and Schwager (2007), Naylor et al. (2008), and Sousa and Voss (2006) have all examined the customer experience in various ways. The customer experience, according to definitions of the term, "arises from a series of interactions between an individual or group of individuals who have a positive or negative reaction to a product, a company, or a part of its



organization" (Gentile et al., 2007, p. 397). Customers' experiences have largely been conceptualized and measured through exploratory studies like those conducted by many authors (Brakus et al., 2009; Burton et al., 2020; Grewal et al., 2009; Hodgkinson et al., 2021; Homburg et al., 2017; Kranzbühler et al., 2018; Pucinelli et al., 2009; Tom Dieck et al., 2021; Verhoef et al., 2009). This is due to the large number of customer touch points. A great customer experience, according to the Marketing Science Institute (2014, 2016), is one of the most important research problems for the near future (Court et al., 2009; Edelman 2010; Homburg et al., 2015). Therefore, in the next section, this study looks at the many types and styles of customer experiences available.

### 2.2.1.1 Product Experience

Product experience can be defined as the entire set of affects that is elicited by the interaction between a user and a product, including the degree to which all our senses are gratified (aesthetic experience), the meanings which is attached to the product (experience of meaning) and the feelings and emotions that are elicited- emotional experience (Desmet and Hekkert, 2007; Hekkert, 2006, Spence and Velasco, 2018; Tsao and Chen, 2017; Wölfel et al., 2021). Product experience as the research area develops an understanding of people's subjective experiences that result from them interacting with products (Hekkert and Schifferstein, 2008; Wang and Park, 2017; Wölfel et al., 2021). According to Desmet and Hekkert, (2007), product experience refers to an experience that is generated from purchasing, consuming and interacting with a product. Direct product experience is also termed 'product trial'.

### 2.2.1.2 Brand Experience

According to Brakus et al. (2009, p. 53), brand experience is described as "subjective, internal consumer responses (sensations, feelings, and cognitions) and behavioural responses evoked by brand-related stimuli that are part of a brand's design." The authors distinguish several experience dimensions and construct a brand experience scale that includes four dimensions: sensory, affective, intellectual, and behavioral. Brand experiences, according to the authors, are distinct sensations, sentiments, cognitions, and behavioural responses elicited by certain brand-related stimuli. Brakus et al. (2010) found that the general attitude toward an experience represents just a small fraction of the total brand experience, and that the brands with which consumers are most engaged are not necessarily the brands with which they have the most impactful experiences. Products, services, corporate brands, and places all offer brand experiences (Sahin et al., 2017; Skinner, 2008; Yang et al., 2017).

### 2.2.1.3 Place Brand Experience

When a person interacts with a branded location and receives enjoyable sensations, this is referred to as a place brand experience (Chan et al., 2019; Florek and Insch, 2020; Hanna and Rowley, 2011; Kavartzis, 2017). Mkhize (2010) believed that when inhabitants and tourists visit a city, the ultimate purpose is to have these joyful experiences. Visitors can have positive place brand experiences by participating in activities such as walking in a park, getting a tattoo, or dancing (Brakus et al., 2009; Schmitt, 1999), but they can also have positive place brand experiences by spending time with loved ones and participating in activities that are personally meaningful to them (Brakus et al., 2009; Brakus et al., 2009; Kim et al., 2010).

### 2.2.1.4 Shopping Experience

Shopping is by definition a social activity (Borges et al., 2010). The store's physical environment, workers, policies, and procedures all contribute to the overall shopping and service experience (Hui and Bateson, 1991; Kerin et al., 1992; Petruzzellis et al., 2021). The retail experience, according to Fiore and Kim (2007), encompasses much more than just the purchase of items by consumers. Other seemingly unrelated experiences that occur as a result of the widely defined retail environment, such as complex shop design and instructional activities or relaxation and entertainment are included. According to Baker et al. (2002), and Petruzzellis et al. (2021), creating a favourable in-store purchasing experience is crucial for brick-and-mortar firms to compete with internet sellers. Hence, immersive technology is increasingly being used in retail to heighten customers' visual, aural, olfactory, and tactile sensitivity (Jones et al., 2010).

### 2.2.1.5 Retail Customer Experience

Previous academics have defined the retail customer experience as an integrated set of events that create a pleasant, peaceful, and fulfilling retail customer experience for the shopper (Arnold et al., 2005; Backstrom, 2011; Bustamante and Rubio, 2017; Cox et al., 2005; Jain et al., 2021; Jones, 1999; Sun et al., 2021). In retail, customer experience is described as the consumer's cognitive, affective, emotional, social, and physical reactions to the merchant (Verhoef et al., 2009), and according to Terblanche and Boshoff (2001), it includes 'all of the elements that either promote or inhibit customers throughout their interaction with a business.' Thus, the retail customer experience can be

conceptualised as the sum total of cognitive, emotional, sensory, and behavioural responses produced during the entire buying process, involving an integrated series of interaction with people, objects, processes and environment in retailin (Shilpa and Rajnis, 2013). During the store selection, shopping, and post-shopping stages, customers engage in a number of behaviours that determine their degree of pleasure and the number of return visits.

#### 2.2.1.6 Service Experience

Service marketing and management scholars have typically studied customers' experiences in two fundamental domains: moments of truth (Normann, 2001) and service blueprinting (Cai and Gursoy, 2018; Flieb and Kleinaltenkamp, 2004; Normann, 2001; Schiavone et al., 2020; Shostack, 1984) As articulated by Heskett (1986), a service's design must be compatible with the service concept. Inconsistency between a design element and a service concept leads to disappointed customers (and sometimes personnel) (Johnston, 1999). Communication and information technology is changing how customers connect with service providers, potentially affecting how they view their service experience (Barr et al., 2018; Boyer et al., 2002; Heim and Sinha, 2001; Huete and Roth, 1988; Oliveira et al., 2002; Prentice et al., 2021; Roth, 2000, 2001; Schiavone et al., 2020).

#### 2.2.1.7 Sensory Experience

As described by the International Service Quality Association, a sensory experience is an image that challenges the human mind and senses (Brakus et al., 2009; Gow, 2021). According to Brooks et al. (2009) and Kamp et al. (2020), all of these encounters have a direct or indirect impact on consumers. Other aspects of customers' experiences that Schmitt (1999) recommended include thinking and feeling. Hultén (2011) later developed the concept of a multi-sensory brand experience to enhance value development. This notion involves the five human senses in the creation of customer value, experiences, and brand image. Various sensory impressions have been demonstrated to influence consumer behaviour and perceptions of goods and services.

#### 2.2.1.8 Online Customer Experience

It is possible for organizations to interact with their customers over the internet, whether they are searching for company and/or product information, using online services such as banking, making an online purchase, or participating in social networking or online communities (Helm, 2007). Both

cognitive and emotive states are included in the concept of online brand experience (Ameen et al., 2021; Bleier et al., 2019; Bhattacharya and Srivastava, 2018; McLean et al., 2017; Mollen and Wilson, 2010; Thomas and Veloutsou, 2013; Bridges and Florsheim, 2008; Hausman and Siekpe, 2009; McLean et al., 2017), as well as the hedonic components of brand experience (Ameen et al., 2021; Bhattacharya and Srivastava, 2018; Lin et al., 2008).

The majority of studies regarding brand experience were offline based concept (Brakus et al., 2009; Iglesias et al., 2011; Khan and Rahman, 2015). But it is now time to look at experience from a different angle: the perspective of transaction process. Only a few researchers have studied the online transaction experience (Bhattacharjee, 2001; Constantinides, 2004; Cho; Gefen, 2009; Hwang et al., 2021; Kim et al., 2009; Ling et al., 2010; Novak et al., 2000; Tecolalu et al., 2021; Wu and Wang, 2005; Zaner et al., 2012). The next section defines the term ‘transaction experience’ and then analyses the concept.

### **2.2.2 Defining Transaction Experience**

In the marketing literature, the concept of experience has been investigated in different contexts. The contexts in which experience is studied are presented below with relevant references –

- *Product experiences* (Hekkert and Schifferstein, 2008; Hoch, 2002; Hoch and Ha, 1986; Lin, 2020; Spence and Velasco, 2018; Tsao and Chen, 2017; Wang and Park, 2017; Wölfel et al., 2021).
- *Brand experiences* (Alloza, 2008; Brakus et al., 2009; Checkout et al., 2018; Reza et al., 2021; Şahin et al., 2017; Skinner, 2008).
- *Place branding experiences* (Baker et al., 2002; Balakrishnan, 2009; Florek and Insch, 2020; Hall, 2008; Hanna and Rowley, 2011; Julier, 2005; Mkhize, 2010).
- *Shopping experiences* (Borges et al., 2010; Fiore and Kim, 2007; Granbois, 1968; Hui and Bateson, 1991; Jones et al., 2010; Kerin et al., 1992; Petruzzellis et al., 2021; Woodside and Sims, 1976).
- *Retail customer experiences* (Bagdare and Jain, 2013; Bustamante and Rubio, 2017; Grewal et al., 2009; Jain et al., 2021; Jin and Sternquist, 2004; Jones et al., 2010;

Schmitt, 2011; Shilpa and Rajnis, 2013; Spena et al., 2012; Sun et al., 2021; Terblanche and Boshoff, 2002; Verhoef et al., 2009).

- *Service experiences* (Barr et al., 2018; Bitner et al., 2008; Boyer et al., 2002; Cai and Gursoy, 2018; Flieb and Kleinaltenkamp, 2004; Heim and Sinha, 2001; Hui and Bateson, 1991; Normann, 2001; Prentice et al., 2021; Roth, 2001, 2000; Schiavone et al., 2020).
- *Consumption experiences* (Arnould and Price, 1993; Bettman, 1979; Holbrook, 2018; Holbrook and Hirschman, 1982; Holt 1995; Joy and Sherry 2003; Rose, and Leigh 1993; Shankar and Behl, 2021).
- *Aesthetic/sensory experiences* (Biedekarken and Henneberg, 2006; Citrin et al., 2003; Fiore et al., 2000; Garlin and Owen, 2006; Goldkuhl and Styfvén, 2007; Gow, 2021; Hultén, 2011; Joy and Sherry, 2003; Kamp et al., 2020; Klosse et al., 2004; Krishna et al., 2017; Orth and Malkewitz, 2008; Peck and Wiggins, 2006; Smith and Burns, 1996; Sweeney and Wyber, 2002).
- *Online customer experience* (Ameen et al., 2021; Bhattacharya and Srivastava, 2018; Bleier et al., 2019; Fuller and Matzler, 2007; Ha and Perks, 2005; Hamzah et al., 2014; Helm, 2007; Izogo, 2017; Kania, 2001; Mollen and Wilson, 2010; Rose et al., 2010; Shankar et al., 2000; Thomas and Veloutsou, 2013).

While all the above-mentioned types and many more types of experiences have been explored, the concept of transaction experience remains unexplored. As mentioned before, the concept of transaction experience exists but only in a vague context. The concept has been adapted by papers in the fields of technology and IT but not in marketing as such (Chalil et al., 2020; Devaraj and Kohli, 2002; Gupta and Kim, 2007; Hodgkinson et al., 2021; Wu and Wang, 2005). An extensive literature review failed to find any definitions of or measures for transaction experience. Thus, this study aims to provide a definition and establish a solid basis for the concept in terms of contactless technology. McCarthy and Wright (2004) categorised four threads of experience, that is, notions that help us understand more clearly about technology as experience, as follows: sensory, emotional, compositional, and

spatiotemporal. Researchers in the context of ‘experience’ have offered various definitions of experience as has been discussed above. A customer has a reaction to a product or a firm, or component of an organization. According to Gentile et al. (2007, p. 397), this experience is personal and involves the customer on many levels. For example, Desmet and Hekkert (2007) stated that product experience includes subjective feelings, behavioural reactions, expressive reactions, and physiological reactions.

According to Alloza (2008), a brand experience is a consumer's view of a brand during their involvement with a product or service. As mentioned earlier, Hanna and Rowley (2011) described place brand experience as an enjoyable experience while interacting with a branded place. Kerin et al. (1992) and Hui and Bateson (1991) defined shopping and service experiences as interactions with a store's physical environment, personnel, policies, and procedures. Shilpa and Rajnis (2013) defined retail customer experience as the sum of a customer's cognitive, emotional, sensory, and behavioural responses during the buying process. Thomas and Veloutsou (2013) describe online brand experience as an individual's internal subjective response to a brand's online involvement. The earlier definitions and conceptualizations of customer experiences are used to derive the definition of transaction experience. Below is a definition of transaction experience.

A transaction experience is a set of transaction-specific interactions between a customer and the product/service provider (Gentile et al., 2007; Hoch, 2002; Kerin et al., 1992; Meyer and Schwager, 2007; Terblanche and Boshoff, 2002), which provokes a reaction (Gentile et al., 2007) involving cognitive, affective, emotional, social (Bolton et al., 2014; Brakus et al., 2009; Gentile et al., 2007; Meyer and Schwager, 2007; Shilpa and Rajnis, 2013), behavioural, and physical (Bolton et al., 2014; Pine and Gilmore, 1998; Shilpa and Rajnis, 2013) responses evoked by transaction-related stimuli such as enjoyment, ease, and speed of transaction (Brakus et al., 2009).

#### 2.2.2.1 Transaction Experience During Covid-19

During the Covid-19 era, there have been rapid and unexpected changes for both the retailers and the consumers especially in the checkout area, while going through the transaction experience, which has meant that subsequently, there have been various changes to the ‘touch’ and ‘social distancing’ issues; as during the transaction process, the customers were having to come in contact with other potential risks related to the virus, such as the checkout staff, the other customers in the queue, and other contact risks in the checkout area, i.e., tills and packing area. Unexpectedly, it was discovered that the most surprising means via which the virus may be transmitted through the monetary transactions (banknotes

and coins) during the course of an individual customer's transaction experience is through the use of a credit card (Dong et al., 2020, Mohan and Thalari, 2023).

Thus, for retailers who wished to be responsive to consumer needs and safety became even more critical for their businesses (Allam, 2020; Lopes et al., 2023). Hence, scientists, health organisations, and even many researchers (Thaba et al., 2023) working towards the safety of customers during the pandemic advised minimising the contact during transactions by reducing the time spent at checkout and increasing the speed of transaction. Furthermore, making the transaction experience more speedy, more convenient, and more enjoyable would also result in less frustration among customers. Therefore, the concept of transaction experience became more of greater importance than before and an area to scrutinise further to achieve a safer society.

### **2.3 MEASURING TRANSACTION EXPERIENCE**

As mentioned earlier, the extensive literature review revealed no valid items and measures for transaction experience and thus it would not be possible to measure the construct without formulating and validating measures for it. Therefore, this study aims to measure the construct as a formative variable.

When it comes to transaction experience in the context of contactless technology, the construct is measured with three variables suggested in the TAM (Davis, 1986) - perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment - which provides a solid foundation from which to begin formulating measures for transaction experience in the context of contactless technology (Chen, 2008; Davis, 1986; Venkatesh, 2000). Thus, in this study, the transaction experience is constructed to be a formative variable that is dependent on the perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment.

Fitzsimons and colleagues (2008) discovered that brand kinds and perceptions can influence customers' purchase decisions and behaviour. Customers primed to think of Apple consume differently than those primed to think of IBM. Furthermore, Ofir and Simonson (2007) observed that pre-purchase expectations influenced post-purchase ratings of the shopping experience and the organization. Customers' brand views (of the business or the brand itself) may have a significant impact on their shopping experience (Schmitt, 2010). Thus, next, the perception of speed, convenience, and enjoyment and its connection to and relation with transaction experience is explained in terms of the previous literature and existing theories.

### **2.3.1 Perceived Transaction Speed**

Chen (2008) first established perceived transaction speed (PTS) as a construct in the context of m-payment, which is a similar technology to contactless, although the concept of speed in transaction existing in the literature. The PTS is defined as the extent to which the prospective user of near field communication (NFC) perceives (Chen, 2008; Teo et al., 2015) to save time (Collier and Sherrell, 2010; Dabholkar, 1996) and improve the speed of transaction (Chen, 2008; Davis et al. 1992; Nguyen et al., 2018; Teo et al., 2015) during the transaction experience.

PTS is more frequently discussed in the e-commerce and technological studies (Akkucuk and Truman, 2016; Burton et al., 2020; Chen, 2008, Jonker, 2007; Chen and Li, 2017; Huq and Farin, 2017; Lee, 2009; Li et al., 2009; Liang and Huang, 1998; Nguyen et al., 2018; Zarpou et al., 2012) than in the marketing literature (Parasuraman et al., 1994, Teo et al., 2015). However, the concept is evident in the retailing literature (Brown et al., 1993; Rowley, 1996; Oliver, 1981; Purnama et al., 2021; Sirohi et al., 1998; Wolfenbarger and Gilly, 2003) when saving time is an important issue for marketers as well as customers.

Among the consumer waiting literature, there has been extensive research on the time-saving aspect of convenience (Bielen and Demoulin, 2007; Davis and Vollmann, 1990; Kumar et al., 1997; Nguyen et al., 2018; Sheu et al., 2003; Tom and Lucey, 1995; Weijters et al., 2007), particularly in terms of consumer reaction to waiting time (Bielen and Demoulin, 2007; Davis, 1986; Jebarajakirthy et al., 2021; Weijters et al., 2007; Wei et al., 2020) investigated how self-service technology (SST) affects perceived waiting times and customer satisfaction/dissatisfaction linked with time savings at SST (Holloway and Beatty, 2008; Weijters et al., 2007; Wei et al., 2020)

Customers hate waiting in grocery checkout lines and have a negative customer experience as a result (Caballero et al., 1985). Studies have revealed a link between long wait times and low consumer satisfaction (Chebat and Filiatrault, 1993; Katz et al., 1991; Nguyen et al., 2018; Wei et al., 2021). The time it takes to actively execute a transaction using SST is defined in the literature (Dabholkar, 1996). Collier and Sherrell (2009) defined perceived speed as the ability to save time in an SST service contact relative to a full-service alternative and the extent to which the potential NFC user feels (Collier and Sherrell, 2010; Dabholkar, 1996) that NFC will reduce time (Chen, 2008; Davis et al, 1992; Nguyen et al, 2018; Teo et al., 2015) and increase transaction speed (Chen, 2008; Davis et al., 1992; Nguyen)



Utilizing contactless technology can create many business opportunities in combination with satisfied customers resulting in higher revenues (Hao and Chon; 2020; Rottenberg and Liu, 2002; Smart Card Alliance, 2007). Leveraging contactless technology combined with a backend system technology is likely to provide a highly customized user experience to customers, which could represent a significant improvement and change to users' transaction experience in their everyday life (Li et al., 2021; Smart Card Alliance, 2008). Several studies on self-service technology indicated that perceived transaction speed was a key factor in determining consumer satisfaction (Jalil et al., 2021; James et al., 2021; Pujari 2004; Meuter et al., 2000; Purnama et al., 2021; Wei et al., 2021).

Therefore, currently, the popular fast-food restaurants like Mc Donald's, Subway, and EAT; busy supermarkets like Marks and Spencer and Tesco; well-known coffee shop chains like Starbucks and Costa; crowded places like London buses and underground, as well as Royal Mail are all adopting this technology simply to save time and make the transaction experience faster than ever. Hence, many more technology giants are investing in contactless payment to increase the speed and convenience. Apple Pay and iPhone wallet are the recent and most widely used contactless payment technology at present which still is finding its path to new inventions (Amiri et al., 2021).

During the Covid-19 pandemic, social distancing and panic buying caused huge queues at the checkouts. Therefore, the increased speed during transactions became the most important factor, as the speed of transaction determined the safety of customers in the retail industry (Pal et al., 2020; Li et al., 2021; Yan et al., 2021) and the effect is still prevailing at retail stores.

### **2.3.2 Perceived Transaction Convenience**

The marketing literature developed the concept of convenience in respect to various product categories (Berry et al., 2002). As a result of their extensive distribution, short time, and physical and mental requirements, convenience items were included in Copeland's (1923) taxonomy of consumer products. Webster's Dictionary defines convenience as "anything that increases one's comfort or saves time; a useful, handy, or helpful device, article, service, or other thing", while Copeland (1923) described convenience items as those that people buy regularly and rapidly from stores that are easily accessible. According to Gupta and Kim (2007), customer attitudes toward the time and effort involved in online shopping are described as being due to convenience. From a self-service perspective, convenience can be described as the perceived time and effort necessary for locating and facilitating the usage of self-service technologies (Collier and Sherrell, 2010).

Some authors have looked into the convenience of transactions in relation to their research (Berry et al., 2002; Briedis et al., 2021; Chen, 2008; Chen et al., 2018; Duarte et al., 2018; Ntuli, 2021; Jebarajakirthy et al., 2021; Purnama et al., 2021; Teo et al., 2015; Yoon and Kim, 2007). As described by Yoon and Kim (2007), perceived transaction convenience is a factor in determining whether or not a user adopts and uses information technology. In the context of mobile payments, Chen (2008) defined perceived transaction convenience as the extent to which a prospective user feels that m-payment makes the payment process more convenient for them.

Using previously published transaction convenience definitions as a foundation, this study developed its own definition of perceived transaction convenience (PTC) in the context of contactless payment, which is defined as the extent to which the prospective user of NFC perceives that they can undertake the transaction with speed and ease (Berry et al., 2002; Chen et al., 2018; Collier and Sherrell, 2010; Duarte et al., 2018 Gupta and Kim, 2007; Seiders et al., 2000) and increased convenience (Chen, 2008; Chen et al., 2018; Teo et. al., 2015).

Observers of consumers have long noted their desire to save time and effort (Anderson, 1972; Briedis et al., 2021; Chen et al., 2018; Duarte et al., 2018; Gross and Sheth, 1989; Kelley, 1958; Jebarajakirthy et al., 2021; Li, 2018; Mahapatra, 2017; Moghavvemi et al., 2018; Nickols and Fox, 1983; Shamsi and Khan, 2018; Wei et al., 2020). Barclay's plc was the first bank in the UK to introduce the contactless cards, and they promoted it to their customers with the motto 'Shorter Queues, Smoother Day' with a picture of a mango smoothie. At the same time, they encouraged retailers to adopt the technology at their respective stores so that customers carrying the contactless cards could pay with them and hence, they promoted it to the retailers with the motto "Simple Payments, Sparkling profits" with a picture of a sparkling wine. Their overall aim was to promote the transaction convenience ([www.barclays.co.uk](http://www.barclays.co.uk)) of using contactless payments.

Contactless technology makes payment as simple as a 'wave' (waving the card over the card reader) and makes travelling more convenient as ever, as there is no need to 'top up' your traditional oyster cards or worry if you have the balance required to travel. It is therefore no surprise that Transport for London (TfL) is promoting contactless travel so rigorously, and they have also facilitated the 'fare cap' for contactless cards similar to Oyster cards (the traditional travelling pass/card used in London transports) ([www.tfl.gov.uk](http://www.tfl.gov.uk)). A recent study on NFC technology found that it has the potential to be a successful payment service solution. NFC outperforms other mobile phone-based technologies because it has a higher score (Mahapatra, 2017; Ondrus and Pigneur, 2009) based on people preferring

mobile shopping due to its convenience (Chen et al., 2018; Kim et al., 2010; Li, 2018; Luarn and Lin, 2005; Purnama et al., 2021; Mahapatra, 2017).

According to Jih (2007), transaction convenience perception positively affects consumer intent to buy products and services. Contactless cards (NFC) are an excellent way to pay for any purchases whether the customer is shopping in a mall, eating out, getting a takeaway coffee or sandwich, dropping a letter off at the post office or travelling. All they need is their contactless card and touch it into the reader. Some contactless card issuers, for example Barclays bank plc have introduced an even more convenient means of payment, namely, 'Pay Tag', the next evolution of Barclaycard's contactless payment technology its mobile phone-based payment system Furthermore, convenience of transaction has moved a step forward with the evolution of Apple Pay and iPhone Wallet, whereby customers can pay very conveniently using their phones just with a tap (Amiri et al., 2021). With their increasing busy lifestyle, customers consider convenience as a differential factor to shop at retail stores and hence, the retailer must analyse and use this factor as a comparative advantage and avail new technologies at checkout to boost convenience for customers during their transaction experience.

### **2.3.3 Perceived Transaction Enjoyment**

The term 'enjoyment' is defined as "the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use" (Park et al., 2012, p. 379). Reynolds and Beatty (1999) defined shopping enjoyment as the satisfaction which is derived from the shopping activity itself. Likewise, enjoyment can be derived from a particular transaction (which could be a part of the shopping process) termed in this study as perceived transaction enjoyment (PTE).

Davis et al. (1992) studied PTE as a part of their conceptual framework known as the Technology Acceptance Model (TAM) and defined it as a measure of how much the action of using a computer is regarded to be enjoyable in and of itself, independent of any performance implications that may be predicted. Later on, Venkatesh (2000) developed TAM 2 and defined perceived enjoyment as the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use. When Hirschman (1982) discussed consumption experience, he explained that these varied leisure activities, such as sensory pleasures, daydreams, aesthetic satisfaction, and emotional responses, were frequently engaged in during the consumption experience.

Based on the existing literature and the preceding criteria, PTE is defined as the extent to which the prospective user of NFC perceives the transaction to be enjoyable in its own right, apart from any performance consequences that may be anticipated (Bedi et al., 2017; Davis et al., 1992; Gumussoy, 2016; Heijden, 2004; Lee and Tsai, 2010; Park et al., 2012; Venkatesh, 2000; Zhou and Feng, 2017) during their transaction experience. Regarding the concept of consumption, experiences involve a mixture of all of the three kinds of elements: the affective, cognitive, and aesthetic (Gumussoy, 2016; Holbrook and Hirschman, 1982). Brakus et al. (2008) and Ugwuanyi et al. (2021) claimed that experiential marketing increases enjoyment. The definitions and conceptualizations of consumption experiences themselves have the concept of enjoyment embedded in them.

During the pandemic, perceived enjoyment during transaction was rather a concept only. However, enjoyment is not limited to 'joy'. More simply, hedonic well-being is all about the happy feelings that it brings about; but eudemonic well-being is about improvements that can be made in various other areas of life, such as helping to reduce inequality, making the community safer, and strengthening social bonds (Anderson et al., 2013; Ryan and Deci, 2001). Hence, at a time of crisis, customers can get in touch with their feelings of belongingness and well-being through interactions at the checkout, which could produce feelings of connection and lead to pleasant thoughts about the transaction.

This study looks into transaction experience in the context of contactless technology (NFC), as this is one of the many tools to make a transaction experience fast, convenient, and enjoyable. However, this study is applicable to any other technology providing it achieves the same effect on transaction experience, and hence it is not limited to contactless technology only. However, the context of the study is contactless technology in the UK, and the purpose of data collection was to validate the conceptual framework presented in Chapter 3. Therefore, the next section gives a brief introduction to contactless technology from the perspective of its application in the UK.

## **2.4 TRANSACTION EXPERIENCE WITH CONTACTLESS TECHNOLOGY**

Over the past couple of years, contactless technology has made significant progress in both the public and the private sectors (Morrisons et al., 2023; Pan, et al., 2021) and especially during Covid-19 (Mohan and Thalari, 2023; Huterska et al., 2021). Iqbal and Campbell (2022) claimed that despite contactless technology being a luxury when it emerged, it became a necessity during the pandemic. The introduction of contactless technologies for the general market means that this is a significant era for the payments industry (Morrisons et al., 2023; Kashirina et al., 2020; Valiyev, 2021). For

consumers, contactless payments are also beneficial to retailers (BBC News, 2022) in terms of giving consumers more control and convenience, while increasing sales for shops (Smart Card Alliance, 2002).

While electronic passports and visas can increase the speed, convenience, and security of transit payments, they can also be used to improve the security of personal data in government and corporate identification cards; thus, contactless smart chip technology is applied to secure transactions (Contactless Payments, 2022; Jiang et al., 2023). While some other types of devices are acceptable, smartphones are the device most frequently used for contactless payments (Basili et al., 2014; Coskun et al., 2013). In order to make a transaction, the consumer can wave their smartphone over a card reader that is attached to an antenna and chip built into the device (Contactless Technology, 2007). It is just as secure as a credit card for contactless payments (Handschuh, 2004). All security measures, including encryption, are implemented for the purpose of safeguarding credit card information and personal identification number (PIN) codes (Handschuh, 2004; Ok et al., 2010).

Consumers are pleased with the ease and speed of making payments with contactless cards or contactless devices, without the hassle of fumbling for cash or worrying about having enough money (Ortiz, 2006). This is often unnecessary because most payment cards come with a receipt that the customer just signs and there is no need to input a PIN (Smart Card Alliance, 2002). Merchant segments where speed and ease of payment are critical, such as fast service restaurants, petrol stations, convenience stores, parking facilities, transportation services, entertainment venues, and unstaffed vending sites are all ideal for contactless payments (Sharma et al., 2023). Contactless payment is accessible on debit, credit, charge, and pre-paid cards. 'Apple Pay' has recently been rolled out as a contactless payment option, in which the card can be saved in an Apple phone. The customer can pay with a debit or credit card without having to enter a PIN, or alternatively, they can just pay by chip and PIN (UK Card Associations, 2022). Initially, the amount had to be under £30; however, the limit went up to £45 during Covid-19.

Contactless cards, often known as contactless credit cards, have gained popularity over the last two years. As of December 2014, there were over 58 million contactless cards in use in the UK, and these were used to perform over 46 million contactless transactions (UK Card Associations, 2022). This method of payment offers an extremely secure and insured payment method that saves both businesses and customers time and money because no further change or money is required (Smart Card Alliance, 2002). For payments below a specified amount a contactless card is merely touched on the reader to

pay. This process takes less than a second, and the money is immediately deducted from the account (Contactless Technology, 2022; Sharma et al., 2023). Occasionally, the cardholder will be asked to go through a chip and PIN transaction to dissuade fraudulent use (Digital Transactions, 2021).

Another benefit to retailers is that the research has shown that people spend more when paying with cards rather than cash (Mayor, 2023; Yang et al., 2023). The belief is that the reasons underlying this have to do with human psychology (Coskun et al., 2013). Cash usage activates the same brain pain centres as using a card, and because of this, it is believed that humans are more prone to spend more with debit or credit cards (Mayor, 2023; Yang et al., 2023). This shows individuals have a strong propensity to spend more when using contactless payment (BBC News, 2022). Because a PIN number is not required, customers feel considerably more comfortable using contactless payments, which leads to them being more prepared to part with their money (Curran et al., 2012; Iqbal and Campbell, 2021). Contactless payment is accepted by retailers around the world, including grocery stores, pharmacies, and fast-food restaurants (Mayor, 2023; Smart Card Alliance, 2002). Taxicabs and vending machines are also equipped with contactless payment today (Sharma et al., 2023).

#### **2.4.1 Contactless Transaction Experience during Covid-19 Pandemic**

Cash-based transactions have fallen out of favour because sustaining the cash system incurs enormous costs, and there are several hazards linked with the use of cash (Allam, 2020). Furthermore, scientists have recommended that people use contactless payments as much as possible during the crisis (Alexander and Karger, 2020; Dunn et al., 2020; Huterska et al., 2021). Since the spread of SARS-CoV-2 in December of 2019, the disease has stricken more than three million individuals and claimed over 207,000 deaths all over the world (Pal et al., 2020; Yang et al., 2023).

As discussed earlier, SARS-CoV-2 is mostly transmitted from person to person by respiratory droplets and fomites. Hence, issues were raised about the infection being spread through the use of cash and coins, which in turn, has raised even more concerns. An increase in the number of media questions on the safety of using cash was noted by central banks. Indeed, this period has seen an all-time high for search terms that involve 'cash' and 'virus' or 'Covid' (Yang et al., 2023). With the introduction of Covid-19 pandemic and the noted potential contamination of bank notes and coinage, the advent of cashless payments prompted a considerable amount of support for new legislation and protocols that were necessary to maintain the stability and efficiency of banking systems while addressing the desire of customers for cashless transactions (Allam, 2020; Morrisons et al., 2023). It was discovered that

transaction currency, such as bank notes, coins, and bills, transmitted the virus most easily (Amiri et al., 2021; Lopes et al., 2023).

Consequently, there has been greater shift towards contactless technology recently, as a result of the pandemic. Visa, American Express, and MasterCard in North America Alipay, Tenpay, and WeChat Pay in China and Worldline in South Africa have reoriented themselves to better capitalize on the digital future. Other companies on this list include Paytm, an Indian-based firm, Apple Pay, and Amazon Pay. Alipay is currently estimated to have over 1.2 billion active users, a number just slightly below that of VISA (1.14 billion) and MasterCard (1.2 billion) (Szmigiera, 2020; Thaba et al., 2023). These numbers indicate that its use will continue to grow, given the recent decision to allow international users to link their Alipay accounts with their international bank cards.

#### **2.4.2 Contactless Technology in the UK**

The UK is the home to some of the world's most advanced technology especially in the case of contactless technology (Huterska et al., 2021; Morrison et al., 2023; London, 2022). After a slow start, contactless payment technology increased dramatically in the UK market (BBC News, 2022). To stay relevant in the continually expanding business climate, firms of all sizes must keep up to date with technology advancements (London, 2022). World Pay observed a 50% rise in contactless transactions between November 2014 and May 2015 (World Pay, 2022), which increased even more after the Covid-19 pandemic in 2020/2021 (Kashirina et al., 2020; Yang et al., 2023).

Contactless payment is causing a seemingly inevitable revolution in the British marketplace according to several researchers (Huterska et al., 2021; London, 2022). While the Barclaycard research indicates that 30% of all card payments in London in 2014 were contactless, it also shows that consumers and retailers alike embraced the technology (Barclaycard, 2022) In the first half of 2014, over 60 million contactless card journeys were registered on the transport network in London (Transport for London, 2022). The contactless technology operates in a similar way to an Oyster card by TFL (BBC News, 2022). This indicates that the retail market in the UK is quickly rising at a rate of 26.7 percent per year (London, 2022). In November 2014, over £380 million was spent using contactless cards in the UK (World Pay, 2022).

Britain, with (52.6 million) ranks highest for contactless transactions with Poland second (49.7 million), followed by the Czech Republic (13.9 million) (This is Money, 2022). With this development in the UK, contactless payments on Tfl helped increase the number of new customers, according to a

press release from Visa Europe (Digital Transactions, 2022). Contrary to that, a separate study conducted by the UK Cards Association revealed that, in December of 2022, roughly one in ten contactless payments made in London involved using public transportation, including buses, subways, train, and rail transit (UK Card Association, 2022).

Contactless technology in London TfL (BBC News, 2022):

2003: Oyster cards is introduced.

2012: Contactless is launched for bus passengers.

2014: Tube and rail services accept contactless payments, while buses go cash-free.

2015: TFL accepts Apple Pay.

2020: The contactless limit rises.

As the population of London gets more used to making contactless payments, there are many business opportunities for ambitious entrepreneurs to take advantage of (Jiang et al., 2023; World Pay, 2022). Contactless technology could become a standard business feature for most retailers in the near future (London, 2012). Indeed, there is increasing speculation that contactless payments will be far faster, easier, and more convenient than the old payment methods, which is why end consumers nearly always choose it as payment method (Contactless Technology, 2022). Contactless payments do not require a PIN, making the process smoother (Contactless Pay, 2022; Sharma et al., 2023). By reducing the inconvenience and the shorter waiting periods, this is a positive technological development for both consumers and retailers (Morrisons et al., 2023). The next section deals with TAM, a model that helps explore the transaction experience with contactless technology from the customer's perspective. The ideas which relate to TAM are transaction speed, convenience, and enjoyment (Chen, 2008; Davis, 1986, Sharma et al., 2023; Venkatesh, 2000).

## **2.5 TECHNOLOGY ACCEPTANCE MODEL (TAM)**

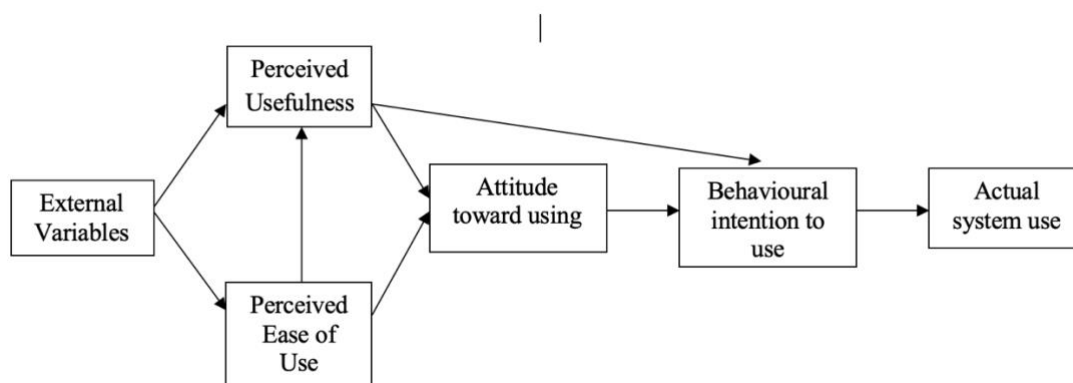
The four popular intention-based models— Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980), TPB (Ajzen, 1985), TAM (Davis, 1986), and Triandis (1997)—are called the 4T theories and are all concerned with planned behaviour. This methodology can be used to make predictions regarding any type of technology adoption, including contactless technology and usage, and it concentrates on discovering the factors that influence intention, such as attitude, subjective norms, perceived behaviour, purchase ease, convenience, and perceived enjoyment. TAM (Davis, 1986), an adaption of TRA, is designed to meet users' willingness to accept information systems. It offers insight into the determinants of computer acceptability, and can also show user behaviours in different computing



technologies and populations (Davis et al., 1989). This technique can be used to determine the various mental and behavioural drivers of intention, including attitude, subjective norms, perceived behaviour, simplicity of purchase, convenience of use, perceived enjoyment, and facilitators. The TAM (Davis, 1986) incorporates the TRA and is responsive to users' comfort with information systems. It explains the factors affecting computer acceptability and highlights various computer usage behaviours across various technologies and populations (Davis et al., 1989). The TRA (a rational theory of behaviour) was applied to further explain the acceptance of information systems. The TAM, established by Davis (1989), evolved from the TRA (Fishbein and Ajzen, 1975), a model that looked at an individual's beliefs to explain adoption behaviour (Morris and Dillion, 1997; Tan et al., 2012).

Many studies have proven the validity of the TAM in many technology-related scenarios, as attested to by Davis (1986), Davis et al. (1989), Igbaria et al. (1997), Kim et al. (2017), Luo and Luo (2000), O'Case and Fenech (2003), Pan et al. (2018), and Rose and Straub (1998). The objective of this model is to forecast users' acceptance of a tool and to pinpoint the alterations required to increase user acceptability. The model developed in this paper proposes that perceived usefulness and perceived ease of use (PEOU) influence system acceptability (Davis, 1986). The visualization presented in Figure 2.1 illustrates the original TAM (Davis, 1986).

FIGURE 2.1: TECHNOLOGY ACCEPTANCE MODEL



Source: Davis et al., (1989)

TAM has been shown to provide an understanding of and the ability to forecast user behaviour with respect to information technology (Kamarudin, 2021; Kim et al., 2017; Legris et al., 2003; Al-Qaysi et al., 2020), and TRA theorists Ajzen and Fishbein have named TAM an influential extension of TRA

(1980). A literature review by Davis (1989) and Davis et al. (1989) presented TAM to describe how users accept or reject new information technology by using TRA. According to TAM, usage behaviour and behavioural intents, attitude, perceived usefulness, and perceived ease of a technology system influence each other directly or indirectly. Additionally, TAM suggests that people's intentions and actual use are influenced by several extrinsic circumstances, which have the consequence of affecting their perceptions of utility and ease of use. The aforementioned two characteristics were determined by many factorial investigations to be two separate dimensions (Hauser and Shugan, 1980; Larcker and Lessig, 1980; Swanson, 1987).

The conceptual framework in this study measures transaction experience through perceived transaction speed, perceived transaction convenience and perceived transaction enjoyment which can be related or linked to the TAM model, where perceived usefulness could account for perceived speed of transaction and perceived ease of use could refer to PTC whereas, actual system use could be considered as the transaction experience by users. A person's belief that using a system will lead to an improved performance is referred to as perceived usefulness, and a person's belief that using a system will be effortless is known as perceived ease of use (Davis, 1986). There is substantial theoretical and empirical support for TAM in its efforts to forecast how potential consumers and decision makers will respond to new technologies (Ajzen, 1991; Al-Qaysi et al., 2021; Kamarudin, 2021; Kim et al., 2017; Pan et al., 2018; Wu and Lu, 2013). The next section explores some notable extensions of TAM and discusses in detail two of those extension which are directly related to this study.

### **2.5.1 TAM Extensions**

Since TAM is so simple, it was quickly adopted by IT/IS researchers (Al-Qaysi et al., 2021; Dutot, 2015; Kamarudin, 2021; Kim et al., 2018; Matamba, et al., 2020; Pan et al., 2018; Rupanjali et al., 2013). However, more variables are required in order to increase the accuracy of the model (Davis, 1986; Rupanjali et al., 2013; Venkatesh et al., 2003; Venkatesh and Davis, 2000). The conclusion Venkatesh and Davis (2000) arrived at was that the TAM-2 was required, which contained not only the attitude but also the subjective norm, and various additional notions such as image, job relevance, or personal experience. In the paper 'Information Technology Acceptance: A Multilevel Approach,' Venkatesh et al. (2003) identified seven additional attributes that go beyond user interest, including social influence, gender, age, or effort expectancy. Venkatesh and Bala (2008) used the unified TAM approach to analyse the e-commerce market, including trust and perceived risk with regard to system use. To examine the increasing usage of social media across generations, Dutot (2014) merged TPB, TRI, and TAM and included new variables into the TAM typology.

In order to forecast online purchase behaviour, research has also utilized TAM (Vijayasathy, 2004). It is thought that perceived utility and convenience of use are the key factors influencing user decision-making. The strength of attitude formation, such as perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment, is strongly linked to perceived usefulness (Davis, 1986; Dishaw and Strong, 1999; Gefen and Keil, 1998; Igarria et al., 1996; Kasilingam, 2020; Moon and Kim, 2001; Pan et al., 2018; Taylor and Todd, 1995). TAM has two primary extensions, which rely on two extensions of the framework. A study by Chen (2008) explained that mobile payment adoption is correlated with the customer's perception of ease of use, while a theoretical model developed by Venkatesh (2000) pinpoints the other components in the equation. These two extensions are the foundations of the theory applied to this study.

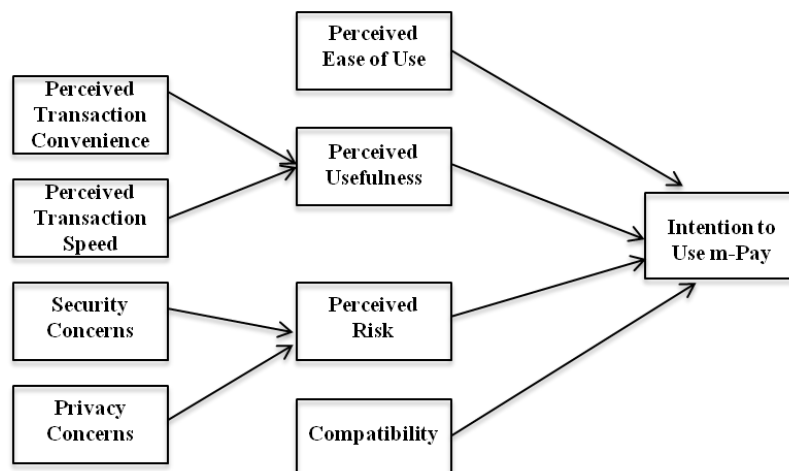
#### 2.5.1.1 Model of Consumer Acceptance of Mobile Payment

Chen (2008) suggested that, today, more people use mobile devices than desktop computers. Furthermore, according to him, mobile commerce (m-commerce) is now no longer simply a trend but is a phenomenon. He called m-commerce “content delivery and transaction” on mobile devices. A research model shown in Figure 2.2 is an extension of two well-established theories, namely, TAM (Davis, 1986) and the Innovation Diffusion Theory (IDT) by Rogers (1995). While TAM and IDT are powerful theories in explaining and forecasting system use and innovation uptake, currently, they are both just hypotheses. Since both hypotheses have previously proven successful in empirical investigations, Davis's (1986) findings are based on the results of those studies (e.g., Igarria et al., 1995; Igarria et al., 1996; Igarria et al., 1997; Karahanna et al., 1999; Taylor and Todd, 1995). Using them to examine the use of e-commerce applications has also been prevalent (e.g., Chen et al., 2004; Devaraj et al., 2002; Gefen and Straub 1997, 2000; Kasilingam, 2020; Koufaris, 2002).

In Chen's (2008) model, the primary characteristics that determine the popularity of m-payments are perceived usability, perceived ease of use, and compatibility. However, interviews with customers and industry executives, as well as examinations of transaction speeds, transaction convenience, security concerns, and privacy issues, generated new factors: fast transactions, convenient transactions, and security and privacy concerns. The executives and consumers interviewed by the researcher all agreed that the following four characteristics had the potential to affect consumer acceptance of m-payment, as a result of which Chen (2008) used them as part of his research model. Chen (2008) demonstrated that transaction speed and transaction convenience are beneficial to perceiving the utility of a feature.

Thus, Chen suggested a research model called the Micro-payment Research Model to explain and predict US consumers' adoption of micro-payment methods. He argued that when consumers consider how fast or how convenient they perceive m-payment to be, it influences their view of the utility of m-payment. Figure 2.2 represents TS and TC which are perceived utility dimensions.

FIGURE 2.2: MODEL OF CONSUMER ACCEPTANCE OF MOBILE PAYMENT



Source: Chen, (2008)

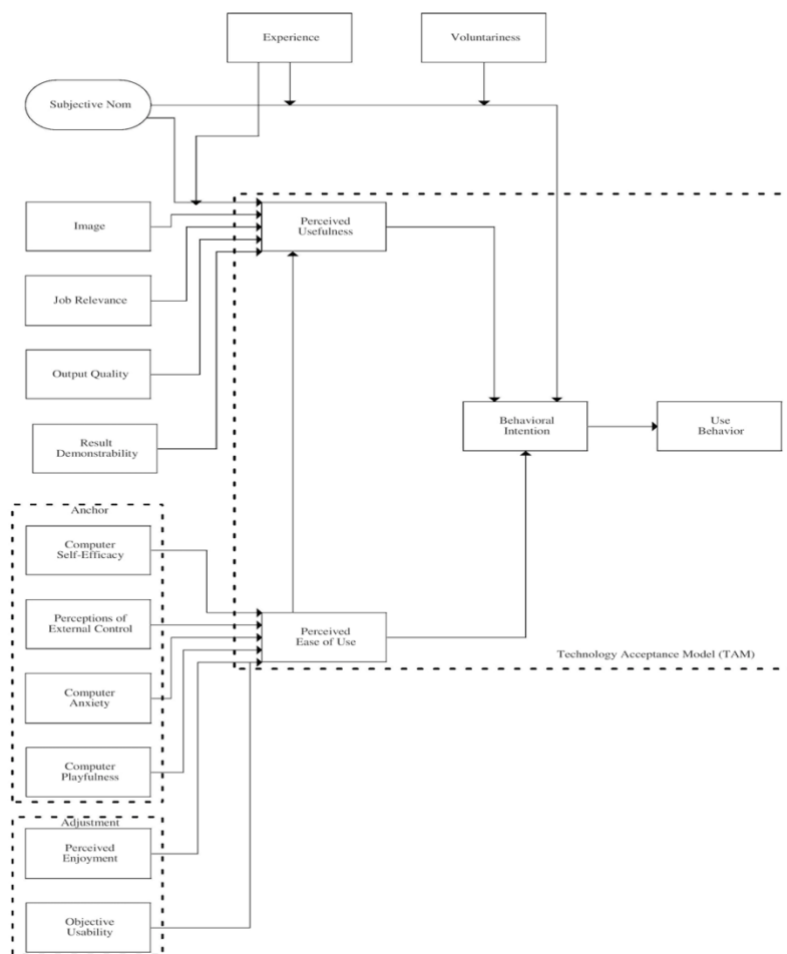
#### 2.5.1.2 Determinants of Perceived Ease of Use

Perceived usefulness was researched by Chen (2008) as was perceived ease of use, both of which have a relation to the acceptance of technology (see Figure 3). As Venkatesh (2000) explained, user acceptability and usage behaviour of information technology is significantly influenced by PEOU. The theoretical model in Figure 3 shows that when more experience is gained, the system-specific perception of PEOU will alter to represent objective usability and to respond to a different system environment, as well as to include an additional measure of system-specific enjoyment.

A theoretical model developed by Venkatesh (2000) suggests that as individuals progress through stages of familiarity with the target system, different variables are at play that affect their estimation of system-specific perceived ease of use. He stated that PEOU is supposed to reflect the distinctive qualities of user system engagement, such as reported satisfaction, in the context of system-specific interactions. It was discovered by Davis et al. (1992) and Venkatesh (2000) that they could add perceived delight into TAM by doing so. The impact of generic computer fun on the target system's PEOU is projected to decline, while system-specific perceived enjoyment is expected to rise

(Venkatesh, 2000). Researchers determined that PEOU can contribute to intrinsic motivation when task difficulty is modified (e.g., Hirst and St-Onge, 1998). While people who enjoy using a product may feel its ease of use, those who dislike it often perceive its difficulty (Venkatesh, 1999). The focus this study takes is the concept of perceived enjoyment (in this study termed as perceived transaction enjoyment) from the study of Venkatesh (2000), as shown in Figure 2.3 below.

FIGURE 2.3: UNIFIED VIEW OF USER ACCEPTANCE OF INFORMATION TECHNOLOGY



Source: Venkatesh et al., (2003)

### 2.5.2 Technology Acceptance in the NFC context

After studying the two TAM extensions by Chen (2008) and Venkatesh (2000), a solid foundation could be given to the first part of the conceptual framework for this research. Hence, it becomes easier and clearer to study transaction experience in the light of contactless technology. It is now evident how transaction experience can be explored in the context of PTS, PTC, and PTE. Chen (2008) suggested

PTS and PTC as a determinant of PU. While Venkatesh (2000) suggested that perceived enjoyment is a determinant of PEOU, which is the other construct in TAM. According to Davis (1989), a technology's adoption is dependent largely on whether or not it serves a purpose (PU) and secondarily on how hard or simple it is to execute its purpose (PEOU). Researchers can use TAM in numerous contexts, including varied retail environments, and gain insight into consumers' purchasing behaviours (Singh et al., 2006; Wu and Lu, 2013).

TAM has been further personalized by the subsequent add-ons to the first model, demonstrating that it could be modified in terms of the development of technology. This study in the NFC context positions the focal construct transaction experience by using TAM and adding to it PTS and PTC (Akinci et al., 2004; Chen and Chang, 2013; Chen, 2008; Dutot, 2015) and PTE (Davis et al., 1992; Venkatesh and Bala, 2008; Vebkatesh et al., 2003; Vekatesh, 2000), as it was recognized relevant for a study on NFC. TAM has served as a fundamental concept in many topics, including cellular internet access (Gong et al., 2005; Lu et al., 2003), mobile services (Koivumaki et al., 2006), and mobile data services (Koivumaki et al., 2006; Lu et al., 2007). Thus, these theories are highly useful to investigate the feasibility of m-payment adoption, and they support this study by providing it with a strong theoretical framework when considering contactless technology (Dutot, 2015; Li et al., 2021).

Cashless payment has frequently been associated with transaction speed and convenience (Riell, 2002; Munro, 2006; Shaw et al., 2022). Making payments with contactless technology is 25% faster than payments using cash (Norton, 2006). Hence, the proposed PTS and PTC are intended to affect customers' m-payment PU. On the other hand, PTE is proposed to influence the PEOU of technology. PU and PEOU are the two most important concepts in TAM and the ultimate outcome in TAM is the actual behaviour which in this study could be looking at the actual usage or experience of using the technology. According to many authors (Davis et al., 1989; Doll and Ajzen, 1992; Fazio and Zanna, 1978a, 1978b, 1981; Kaur et al., 2021; Ugwuanyi et al., 2021; Venkatesh and Davis, 1996), the actual behaviour is the experience in shaping beliefs. Thus, from the above discussion, it could be concluded that transaction experience (a formative variable in this study) could be explained in terms of PTS, PTC, and PTE.

## **2.6 LINKING TRANSACTION EXPERIENCE WITH TRANSACTION-SPECIFIC BRAND EQUITY**

Despite the rise in brand marketing in recent years, there is a lack of agreement on how brand equity is generated (Bose et al., 2020; Pappu and Quester, 2017; Pappu et al., 2005; Kayaman and Arasli,

2007; Keller and Brexendorf, 2017; Tasci, 2020). While the origins of brand equity remain unclear, early contributions support equity as a company asset, with consumer and firm appeals (Aaker, 1991; Christodoulides and De Chernatony, 2010; Keller, 1993, 2001). One possibility is that the multiple approaches utilized to assess the intangible construct caused the difficulty in quantifying the construct. Because brand equity is the result of consumers' cognitive analysis of environmental stimuli, it might be argued that brand equity is solely dependent on customer evaluations (Aaker, 1991; Keller, 1993). The second viewpoint argues that the concept is a subjective response to social and personal components, with some theorists saying this refers to attitudes while others claim it is a trait (Kim and Kim, 2005).

A study published in 1995 in the *Journal of Retailing* by Lassar, Mitchell, and Cornfield (1994) posits that consumers build brand equity through intangibles like perceived performance, perceived value, image, trustworthiness, and commitment. Loyalty, perceived quality, and brand awareness/association were some of the behavioural determinants (Yoo and Donthu, 2001). Since brands are essentially an expression of the beliefs and ideas that people have about them (Bedbury and Fenichell, 2002), customers are active participants in the construction of brand equity (Blackston, 2000). To grasp, manage, and measure brand equity, it is important to consider all of the characteristics that customers use to determine the value of a brand.

Additionally, for assessing the value of a brand, customers are constantly actively participating in the formation of a company's identity (Vallaster and von Wallapach, 2013). The term marketing practitioners use when referring to brand equity is 'brand description' (also known as customer brand equity) as distinct from asset value, which they call 'business brand equity' (Wood, 2000). In this method, the theory looks at the consumer - whether they are an individual or an organization; from a customer-based brand equity perspective. A brand's power is determined by customers' reactions to their past experiences with the brand, such as liking it, disliking it, liking it a lot, or disliking it a lot (Keller, 2003; Kumar et al., 2018). Keller (2003, p. 60) defined brand equity as "the differential effect that brand knowledge has on consumer response to the marketing of that brand". According to Keller (1993, 2001, 2002, 2003, 2020), brands relate consumers' memory and knowledge to consumer-created value (Alba and Hutchinson, 1987; Alba et al., 1991).

Establishing a memorable, unique, and long-term relationship with a brand will produce an invaluable brand asset (Kumar and Purwar, 2013). Farhat et al. (2020), and Kumar and Puwar (2013) explored how brand experience affects customer-based brand equity in the health care industry. Although there

is a significant amount of interest in brand equity, no rigorous study has been done on the impact of brand experience on brand equity. While Blackston (1992) defined brand equity as trust and happiness with the organization, Kim et al. (2008) empirically examined brand awareness and brand loyalty in the setting of a hospital, and Chahal and Bala (2008) tested brand awareness, brand association, and brand loyalty, as well as 'brand equity' (see below). Although these studies are lacking in comprehensiveness, as antecedents of brand equity dimensions are not well studied, they remain an important source of information.

In the literature, brand equity has been measured with multiple constructs, such as brand awareness (Aaker, 1991, 1996a; Azzari and Pelissari, 2021; Buil et al., 2008; Mattke and Maier, 2020; Pappu et al., 2005, 2017; Puspaningrum, 2020; Tran et al., 2020; Trapp et al., 2017; Yoo et al., 2000), perceived quality (Aaker, 1991, 1996a; Buil et al., 2008; Gallart et al., 2021; Miremadi and Ghanadiof, 2021; Pappu et al., 2005, 2006, 2017; Tong and Hawley, 2009; Trapp et al., 2017; Yoo et al., 2000; Yoo and Donthu, 2001), brand loyalty (Buil et al., 2008; Dada, 2021; Kalhor et al., 2021; Kim and Kim, 2004; Murtiasih et al., 2021; Pappu et al., 2005, 2006, 2017; Tong and Hawley, 2009; Trapp et al., 2017; Yoo et al., 2000; Yoo and Donthu, 2001), brand image (Dada, 2021; Jawahar and MK, 2021; Kim and Kim, 2004; Shanti and Joshi, 2021), brand personality (Aaker, 1996a, 1997; Buil et al., 2008; Farhat, 2020; Keller, 1993; Khan, 2020; Pappu et al., 2005), and brand association (Aaker, 1996a; Buil et al., 2008; Keller, 2008; Nguyen and Nguyen, 2021; Qureshi et al., 2021). The concept behind brand equity is to form how customers think and feel about the product or service relying on positive experience (Chen and Qasim, 2021; Farhat, 2020; Keller, 1993, Kuhn et al., 2008; Pina and Dias, 2021; Sarker et al., 2019).

In a previous study, Lemke et al. (2011) argued that customer experience outcomes have not been a focus of many customers experience models; therefore, this research aims to correct that shortcoming. In this study, the researcher explores the concept of transaction experience which is basically the customer experience generated from a transaction (payment) procedure with a specific retail. Consequently, the outcomes from a positive transaction experience (TE) are explored and each outcome from the TE is given a term that is customised to the study, namely, transaction-specific satisfaction, transaction-specific trust, transaction-specific performance, transaction-specific personality, transaction-specific associations, and perceived value (from a transaction). Then, these outcomes from a positive transaction experience are proposed to be the antecedents/dimensions of transaction-specific brand equity (TBE), thus linking the transaction experience with the transaction-



specific brand equity so as to show the effect and impact of transaction experience on transaction-specific brand equity.

The above-mentioned constructs are termed as ‘transaction-specific’ to make it more relevant and customised to this specific study, which is looking into transaction-based experience only (and not the overall customer experience, brand experience, or service experience as such). Hence, each of the outcomes from a transaction experience is transaction-specific and thus is named accordingly. Next, each of these constructs is discussed in more detail.

### **2.6.1 Transaction-specific Satisfaction**

Over the previous four decades, the idea of satisfaction was very much regarded by the majority of marketers in this industry as a fundamental, theoretical, and practical consideration (Bae et al., 2021; Jamal, 2004). The degree to which customers are satisfied with their purchases is assessed by calculating the distance between their previous experience and their present expectations as a result of shopping (Churchill et al., 1982). Customer satisfaction has been an important marketing concern for decades, and it has been the subject of numerous studies (Bae et al., 2021; Gera et al., 2017; Kasiri et al., 2017; Oliver 1997; Ramanathan et al., 2017; Rychalski and Palmer, 2017; Szymanski and Henard, 2001; Zaid and Patwayati, 2021).

Consumer satisfaction evaluations are influenced by the ‘affect’ experienced during the purchase and use of the product or service, according to a different school of thinking (Homburg et al., 2006). Molina et al. (2007) and Zaid and Patwayati (2021) asserted that customer pleasure comes from emotions that consumers experience throughout the purchase process. It has been perceived as a primary driver of long-term consumer behaviour, since customer satisfaction is based on the assessment of the consumption experience after the fact (Oliver, 1980).

Customer satisfaction is an important phenomenon and has been studied by many researchers; however, each author has their own way of defining customer satisfaction. Customer satisfaction was described by Jamal and Nasser (2003) as a feeling or attitude the customer experiences after using a product or service. Oliver (1980), who studied this phenomenon extensively, defined it as evaluating one product or service based on customer needs and perceptions. Meanwhile, Barsky (1995, p. 17) defined consumer satisfaction as “the meeting and/or exceeding of customer expectations”. A definition of consumer satisfaction is made clear by using context-specific terms. This study looks into customer satisfaction in the ‘transaction-specific’ context and focuses on the post-consumption

(satisfaction after a transaction) transaction-specific satisfaction. Lee and Lee (2013) studied post-consumption satisfaction and defined it as an evaluation after the consumption experience.

In the post-consumption context, researchers (Bhattacharjee, 2001b; Bhattacharjee et al., 2008; Cao et al., 2018; Haeruddin et al., 2020; Lin and Hsieh, 2007; Oliver, 1980, 1981; Prayag et al., 2017) conceptualized customer satisfaction as the psychological condition ensuring when a consumer's expectations are contradicted, together with previous feelings about the consumption experience. It is expressed in terms of emotional and cognitive summaries. For example, Anderson et al. (2004) and Fornell (1992) found that customer satisfaction is a synthesis of customer evaluations based on the time span of their total purchases and consumption of a good or service. This, according to Meyer and Schwager (2007), defines customer happiness as the summation of numerous customer experiences.

Overall satisfaction is a “cumulative construct summing satisfaction with specific products/services of the organisation with various other facets of the company, physical facilities for example” (Garbarino and Johnson, 1999, p. 72). Satisfaction experienced in the course of a given transaction with the organisation is transaction-specific and refers to whether a customer is content with a certain service provider (Jones and Suh, 2000). Researchers (Anderson et al., 1994; Andaleeb and Conway, 2006; Bodet, 2008; Boshoff, 1999; Fornell et al., 1994; Happ et al., 2020; Homburg et al., 2005; Johnson, 2001; Jones and Suh, 2000; Manthiou et al., 2020; Olsen and Johnson, 2003; Veloutsou et al., 2005) have investigated the importance of pleasure in transaction-specific cases.

Overall satisfaction (as an attitude) is relatively consistent over time, and may approximate transaction-specific satisfaction (TSS) (Happ et al., 2020; Jones and Suh, 2000). Consumer happiness is slightly influenced by each transaction, making it an active and dynamic process (Fournier and Mick, 1999). After making a specific purchase, the consumer must then make an evaluation assessment about the customer satisfaction with the transaction (Hunt, 1977; Oliver, 1977, 1980, 1993). Also, customers' complex psychological reactions to a product or service provider's performance can be captured by using transaction-specific measurements (Oliver, 1997).

Until about the early 1990s, transaction-specific pleasure was dominant in the marketing and consumer behaviour literature (Oliver 1997; Yi 1991). This sort of customer satisfaction has generated a vast body of research on individual consumer happiness and on its repercussions (Bagozzi and Yi, 1991). Transaction-specific satisfaction has been researched by many academics (Anderson et al., 1994; Boulding et al., 1993; Brunner et al., 2008; Ekinici et al., 2008; Hunt, 1977; Ji and Prentice, 2021;

Johnson, 2001; Jones and Suh, 2000; Lee et al., 2018; Lien et al., 2017; Massad et al., 2006; Oliver, 1977, 1980, 1993; Olson and Johnson, 2003; Sulphrey and George, 2017; Veloutsou et al., 2005). Bitner and Hubert (1994) considered transaction-specific satisfaction to be customer post-choice satisfaction in regard to service characteristics, while Shankar et al. (2003) referred to transaction-specific satisfaction as post-choice satisfaction.

In line with the past research, existing definitions, and conceptualizations of transaction-specific satisfaction, a customized definition adapted to this study is given to the construct. Transaction-specific satisfaction refers to a customer's post-transaction evaluation and assessment of the pre-transaction experience (Anderson et al., 2004; Cadotte et al., 1987; Fornell, 1992; Happ et al., 2020; Kim, 2005; Labarbera and Mazursky, 1983; Oliver, 1997; Shankar et al., 2003) to form the norms of transaction-specific retail performance (Cadotte et al., 1987; Labarbera and Mazursky, 1983; Lee et al., 2018; Lien et al., 2017; Sulphrey and George, 2017; Zaid and Patwayati, 2021). This study focuses on the satisfaction derived from a specific transaction using a during a transaction experience with contactless technology.

### **2.6.2 Transaction-specific Reputation**

Reputation can be defined “as a distribution of opinions (the overt expression of a collective image) about a person or other entity, in a stakeholder or interest group” (Bromley, 2001, p. 317). Whereas “image reflects what a firm stands for, reputation reflects how well it has done in the eyes of the marketplace” (Herbig and Milewicz, 1993, p. 18). Managing company brand resources helps to boost the company's brand reputation. Therefore, Fombrun and Rindova's (1996) definition of reputation is applied: a collective representation of a brand's past actions and results that describes the brand's ability to deliver valued outcomes to multiple stakeholders.’ A brand's reputation is more durable and reflects the synthesis of various representations over time, while a brand's image is subject to current and changing perceptions (Alwi et al., 2017; Fombrun and van Riel, 1997).

A firm's reputation has a favourable impact on the expenses associated with buying and selling a business, as well as customers' evaluation of quality and value (Alwi et al., 2017; Caruana et al., 2004; Dowling, 2001; Kreps and Wilson 1982; Roberts and Dowling 2002; Rose and Thomsen 2004; Shapiro, 1983; Williamson 1985). Corporate reputation is both necessary for and positively associated with company success. Other authors (Gardberg and Fombrun 2002; Gotsi and Wilson 2001; Groenland 2002; Miotto et al., 2020; Subraamanniam et al., 2021) have argued that having a positive

reputation confers an edge over competitors and increases the number of customers attracted to the firm.

To maintain their good reputation, service organizations must measure their reputation and determine how it relates to crucial customer result characteristics. In the management and marketing literature, the subject of defining and assessing company reputation has gained significant attention (Davies et al., 2002; Fombrun 2001; Fombrun and Shanley 1990; Fryxell and Wang 1994; Gardberg and Fombrun, 2002; Money et al., 2017; Susanti and Samudro, 2021; Walsh et al., 2017; Wartick 2002). Reputation is a far more representative measure of performance since it includes the perceptions of all stakeholders (Harris and Chernatony, 2001).

This approach aims to provide a desirable reputation for the company among its stakeholders (van Riel and Balmer, 1997). According to Rose and Thomsen (2004, p. 202), a “corporation’s reputation may simply reflect people’s perceptions”. On the other hand, corporate reputations are the “outcome of a competitive process in which firms signal their key characteristics to constituents to maximize their social status” (Fombrun and Shanley, 1990, p. 234), and intangible assets are particularly valuable in terms of how they might help a company earn a competitive advantage in the marketplace of products and services (Barney, 2002; Dowling, 1994, 2004; Hall, 1992; Milgrom and Roberts, 1982).

An alternate viewpoint on reputation is that it is based on customer-based ratings of a business, and these are made up of several factors, such as customers' overall evaluations of a firm based on their experiences with the firm's goods, services, and communication activities, their interactions with the firm and/or representatives, and/or the company's established practices (Walsh and Beatty, 2007). “Reputation is an aggregate composite of all previous transactions over the life of the entity, a historical notion, and requires consistency of an entity’s actions over a prolonged time” (Herbig and Milewicz, 1993, p. 18).

The literature shows that in numerous academic areas, such psychology, sociology, economics, management, and marketing, the importance of corporate reputation has been acknowledged (Fombrun, 1996) and reputation has been studied from various perspectives starting from the concept of reputation (Bromley, 2001; de Chernatony, 1999; Harris and Chernatony, 2001; Herbig and Milewicz, 1993; Fombrun and Rindova's, 1996; Fombrun and van Riel, 1997; Kamiya et al., 2021; Podder et al., 2021; Zervas et al., 2021) itself to the concept of corporate reputation (Barney, 2002; Chun, 2005; Dowling, 1994, 2004; Fombrun and Shanley, 1990; Hall, 1992; Money et al., 2017;

Milgrom and Roberts, 1982; Sánchez et al., 2020; Walsh et al., 2017; Walker, 2010), corporation's reputation (Balmer, 2003; Fang et al., 2012; Money et al., 2017; Rose and Thomsen, 2004; Walsh et al., 2017), customer-based company reputation (Cretu and Brodie, 2007; Mohamed et al., 2020; Walsh and Beatty, 2007; Walsh et al., 2009) and so on.

Walsh and Beatty (2007) described a concept of customer-based corporate reputation that they called "customer satisfaction", which they claimed is analogous to a judgment-like attitude after a purchase. In contrast, Fournier and Mick (1999) described a corporate reputation concept, which they, too, called "customer satisfaction" and contended that this describes a mindset arising after customer interaction, and reputation-relevant information received about the company (Alwi et al., 2017; Walsh and Beatty, 2007). This study has a similar approach to look into reputation which is from the consumer perspective and is transaction-specific. In this study, the focus is on transaction-specific reputation and the construct has been defined accordingly. Transaction-specific reputation is defined as the customer's overall evaluation of a firm (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017; Weiss et al., 1999), based on his or her un/satisfactory reactions to the firm's communication activities followed by the transaction experience (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017).

### **2.6.3 Transaction-specific Perceived Value**

Perceived value is rooted in equity theory, which examines the relationship between the amount that consumers and service providers get out of their endeavours relative to the amount they put in (Li et al., 2021; Oliver and DeSarbo, 1988). When evaluating the value of a product, the customer weighs the quality of the product with the additional benefits and costs associated with it against the value they surrender in paying the price (Dodds et al., 1991). According to a study by Martin-Consuegra, et al. (2007), perceived value influences customer happiness and loyalty (Zeithaml, 1988). Researchers like Baker et al. (2002), Gabler et al. (2017), Parasuraman and Grewal (2000) and Zhao and Chen (2021) all agree that perceived value is one of the many important factors in customers' buying decisions.

Value is the net benefit gained from all relevant advantages and disadvantages or sacrifices made by the product or service or the supplier as well as the product or service itself (Leppäniemi et al., 2017; Snoj et al., 2004). The way customers perceive value is a multidimensional concept, with customers having to weigh benefits and sacrifices against each other when making their purchase decision (France et al., 2020; Slater and Narver, 2000; Snoj and Gabrijan, 2000; Ulaga and Chacour, 2001;

Tuncer et al., 2021; Woodruff et al., 1993; Zeithaml et al., 1996). In a study conducted by Bedi (2015), wireless service users reported that the perceived value of wireless services affected their level of happiness. Thus, a shopper's browsing and discovery experience influences the perceived worth of the item far more than does the price or product quality (Kerin et al., 1992).

Regarding time, longer processing times can significantly affect the value of different point-of-sale channel options (Collier and Sherrell, 2010). For some customers, interaction with personnel is uncomfortable and lengthens the time between the point of sale and when they receive their goods (Lovelock and Young 1979). Accordingly, increases in perceived value stem from perceived transaction speed (Chen et al., 2017). Collier and Sherrell (2010) believed that a customer's perceived value of a self-service experience is positively related to the speed at which they can perform transaction evaluations. To aid with this investigation, this study employs a conceptual framework that describes perceived value.

The study examines the possible value customers perceive from contactless payment systems based on their transaction experience. People's trust in websites is strong for retail websites, even more so for travel websites, and strongly holds true even for current and savings accounts (Akhtar et al., 2020; Harris and Goode, 2004; Johnson, 2007; Ramos et al., 2021). Examples like this support the premise that customers become more trusting when they discover the value of a business's service (Collier and Sherrell, 2010).

Hence, considering the existing definitions and existing literature, the definition of transaction-specific perceived value is customized in accordance with the conceptual framework of this research, that is, it covers the overall assessment (Zeithaml, 1988) of customers' perceived benefits and customers' perceived sacrifices of a transaction with the product/service provider (Day, 2000; Gupta and Kim, 2007; McDougall and Levesque, 2000; Oliver and De Sarbo, 1988; Zeithaml, 1988) jointly formed through consumers' transaction experience (Gupta and Kim, 2007; Prebensen and Xie, 2017; Shechter, 1984).

#### **2.6.4 Transaction-specific Trust**

Customers have an expectation of trust and will establish favourable purchasing intentions when they perceive the brand to be trustworthy (Lau and Lee, 1999). Moorman et al. (1993, p. 82) viewed trust as "a willingness to rely on an exchange partner in whom one has confidence". Morgan and Hunt (1994, p. 23) conceptualized trust as "existing when one party has confidence in an exchange partner's

reliability and integrity”, while Anderson and Narus’ (1990) definition of trust suggests that two parties in a relationship will feel certain that their collaboration will be rewarded.

Social psychology has explored trust from multiple angles over the last several decades (Alwi et al., 2016; Deutsch, 1958, Hamburger, 2020; Lewicki and Bunker, 1995; Schilke and Huang, 2018; Stefaniak et al., 2017; Zand, 1972; Weiss et al., 2021), such as economics (De Brauw and Kramer, 2018; Dasgupta 1988, Granovetter 1985; Weiss et al., 2021; Yang and Xin, 2020), marketing (Anderson and Weitz, 1989; Brown et al., 2018; Hamburger, 2020; Keszey and Biemans, 2017; Kim and Peterson, 2017; Ponnareddy et al., 2018), inter-disciplinary aspects, and so on. Trust is established on different conditions and methods rather than on just one (McKnight et al., 1998).

According to marketing research, two separate types of trust exist: benevolent trust and credible trust (Doney and Cannon, 1997; Ganesan, 1994; Keszey and Biemans, 2017; Sharif et al., 2020; Song et al., 2021). Generally, management studies have emphasized good will anchored on past customer-seller relationships (often referred to as goodwill trust; see Ring and Van de Ven, 1992; Sako, 1992; Zhong et al., 2017 and Zaheer et al., 1998). In his study, Ganesan (1994) studied trust from the perspective of these two unique types of trust, and found distinct connections with other factors.

Furthermore, trust has been studied in various contexts, as is evident from the existing literature. Research has proven that prior to interacting with a new party, individuals will have formed trusting ideas, and these levels of trust often persist (Alwi et al., 2016; Kramer, 1994). The majority of studies have dedicated significant time and effort to assessing customers' trust in a brand, which is sometimes referred to as customer-based brand equity. This refers to the expectation of the trustworthiness and goodwill the brand expects to get from customers in potentially risky situations (Doney and Cannon, 1997).

Based on research by Ballester et al. (2003) and Huang et al. (2020), brand trust is defined as the confidence customers have in a certain brand's trustworthiness and integrity. The definition of brand trust is “the willingness of the average consumer to rely on the ability of the brand to perform its stated function” (Chaudhuri and Holbrook, 2001, p. 82). Pavlou (2003) defined trust in the business-to-customer (B2C) e-commerce context as “the belief that allows consumers to willingly become vulnerable to Web retailers after having taken the retailers' characteristics into consideration” (p. 106). Research has also found that while trust is a dynamic concept that grows over time, it is critical for people to have a benchmark against which to measure their trust for new technologies, especially when

overcoming concerns about risk and uncertainty (McKnight et al., 2002b; Wang and Benbasat, 2009). Meanwhile, the definition of trust in the technology context as used by McKnight and Chervany (2001) states that it is the extent to which one believes that the new technology usage will be reliable and credible. Additionally, numerous academic studies have proven that brand credibility is essential in online sales (Corbitt et al., 2003; Quelch and Klein, 1996).

Many researchers (Alwi et al., 2016; Fadhilla and Farmania, 2017; Farrokhi et al., 2021; Gefen et al., 2003; Gefen and Straub, 2004; Pavlou and Gefen, 2004; Pennington et al., 2003; Siegert, et al., 2020) have looked into the web base/online trust, while others have looked into the technology-based trust (Agarwal and Prasad, 1997; Barenji, 2021; Chin and Marcolin, 2001; Corritore et al., 2003, Frausing and Avital, 2021; Gefen et al., 2003; Jarvenpaa and Todd, 1997, Karahanna et al., 1999; Komiak and Benbasat, 2006; Li et al., 2008; Moore and Benbasat, 1991; McKnight, 2005; McKnight et al., 2002a; Pavlou and Gefen, 2004; Pavlou, 2003; Rogers, 1995; Tang et al., 2018; Wang and Benbasat, 2009; Wang et al., 2017).

In addition, recent studies have shown that trust influences consumers' acceptance of new technology, particularly where users have concerns regarding danger and ambiguity (Ameen et al., 2021; Gefen et al., 2003; Pavlou and Gefen, 2004). The authors (Ameen et al., 2021; Hao, 200; Pavlou and Gefen, 2004), and suggestion agents (Komiak and Benbasat, 2006) stated in their research that trust is the opinion an individual has about another party's capability to carry out a certain transaction in a scenario where there is uncertainty.

Brand trust is said to be favourably associated with overall consumer pleasure and experience (Alwi et al., 2016; Papadopoulou et al., 2001; Szumski, 2020; Urban et al., 2000). Practical research indicates that having faith in a partnership will minimize tension and lessen the sense of disjunction in service interactions, resulting in higher satisfaction (Ameen et al., 2021; Hennig-Thurau et al., 2002). Hao (2020), Pavlou (2003), and Suh and Han (2002) pointed out that it is one of the most effective techniques for minimizing uncertainty and hazards (to help people feel more secure) and providing them with a sense of safety. Moreover, corporate connections and transactions are based on this principle (Moorman et al., 1992, Sultan and Mooraj, 2001; Szumski, 2020; Warrington et al., 2000). Perceptions of honesty/integrity, reliability/dependability, accountability, and positive motives/intentness are all attributes commonly linked to trust. In this study, trust is viewed from a transaction-specific context, that is, the trust that develops from a particular transaction (in this case, using contactless technology during a transaction experience). Trust is defined in this study as the



confidence (Ballester et al., 2003; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994), trustworthiness (Ballester and Alemán, 2005), and reliability (Ballester et al., 2003; Chaudhuri and Holbrook, 2001; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994) that one will find what is desired from a transaction, rather than what is feared (Deutsch, 1973).

### **2.6.5 Transaction-specific Performance**

Performance can be studied from various perspectives; it could be at the product level (product performance), firm level (firm performance), financial level (financial level), or organization level (organizational performance). This study considers both the product/brand performance and organizational performance, as the performance of an organization and the performance of a brand are two interwoven entities (O’Cass and Ngo, 2007).

The performance of a retail outlet considers the contactless payment tool (credit/debit cards, apple pay), and the organization performance measures how well an organization performed in terms of offering an innovative payment procedure. Both these performance measures are evaluated after a successful transaction experience by a customer. According to Shi et al. (2021) and Zaichkowsky et al. (2010), a number of components, each with their own intangible and tangible assets, comprise the ‘value of the company’ when identifying key performance characteristics for the product performance, distribution performance, support service performance, and company performance.

Business performance is another an important area, and thus it attracts a considerable amount of attention in the marketing literature (Cavusgil and Zou, 1994; Cuevas et al., 2021; Kasemsap, 2018; Morgan et al., 2002; Morgan and Vorhies, 2018; Mukonza and Swarts, 2020; O’Cass and Julian, 2003; Ogunmokun and Ng, 1999; Styles, 1998; Varadarajan, 2020; Wong and Merrilees, 2005, 2007) and in the strategic management literature (Calantone and Knight, 2000; Chen and Hu, 2002; Fuertes et al., 2020; Kim et al., 2018; Lai et al., 2021; Pan and Chi, 1999; Prescott, 1986; Savitri et al., 2021; Slevin and Covin, 1997; Wong and Merrilees, 2008).

Indeed, scholars have paid much attention to the origins of performance variances among businesses in strategic management and marketing literature (Briedis et al., 2020; Stoelhorst and van Raaij, 2004). While many authors in the past have undertaken organizational performance-based research (Briedis et al., 2020; Jaworski and Kohli, 1993; Matsuno and Mentzer, 2000; Narver and Slater, 1990; Pelham, 1997; Savitri et al., 2021; Shi et al., 2021), the overall effectiveness of a company's brand is assessed by its financial and operational characteristics, such as sales growth, profit, geographic spread, and

market share (Hult et al., 2008; Venkatraman and Ramanujam, 1986). Moreover, many researchers have studied firm performance (Appiah-Adu, 1999; Beamish et al., 1993; Chen et al., 2021; Day and Wensley, 1988; Styles, 1998; Tajvidi and Karami, 2021). On the other hand, for many years, it has been commonplace in the marketing literature to examine the financial performance (Boyd and Kannan, 2018; Calantone and Knight, 2000; Cavusgil and Zou, 1994; Shoham, 1999), which is an important indicator of brand equity.

Wang et al. (2004) and Yang et al. (2015) looked into how consumer behaviours and perceptions of brand performance could be predicted by considering the triple contexts, and they planned to make a contribution to our understanding of international customer-brand performance by investigating how the triple contexts affect customers' experiences. A good indicator to gauge the brand's success in the marketplace is the brand's relative performance (Ali et al., 2021; O'Cass and Ngo, 2007). The researchers Lassar et al. (1995) and Ali et al (2021) classified brand performance as a judgment made by consumers on a brand's ability to consistently and flawlessly deliver long-term performance while being error-free.

This research takes into account the user friendly contactless transaction system installed by the organization for a better transaction-specific retail performance and defines transaction-specific performance as the consumer's judgment about a retailer's fault- and hassle-free transaction experience and the overall perceived effectiveness of the transaction (Hult et al., 2008; Lassar et al., 1995; Nguyen et al., 2021; Punjaisri and Wilson, 2017; Venkatraman and Ramanujam, 1986). To be competitive in an increasingly global market, businesses must rely on innovation, which results in new wealth-producing resources or provides current resources with increased potential for creating wealth (Drucker, 1998; Shi et al., 2021; Wong and Merrilees, 2008).

Industry environment, organizational learning, and innovation all seem to be interlinked with brand performance, according to a recent study published by Weerawardena et al. (2006). In several ways, such as the creation of new technologies, new positioning concepts, new distribution methods, and new market segments, Doyle (1989) stated that a successful brand is based on 'getting there first'. The research of Calantone et al. (2002) and Shavitri et al. (2021) supports the idea that innovation enhances performance.

Increasingly, academics are linking creativity with performance, and numerous studies show that in order to succeed, companies need to foster innovation (Deshpande et al., 1993; Nguyen et al., 2021;

Savitri et al., 2021). This argument is as follows: In the context of brand performance, it is believed that an innovative culture is a critical aspect that has a direct and beneficial influence on a company's success (O'Cass and Ngo, 2007), as innovation has been proven to increase a company's overall performance (Gill and Kim, 2021; Merrilees and Miller, 2001a, b; Noble et al., 2002; Shavitri et al., 2021). In the context of small and medium-sized retailers, the empirical research suggests that innovation is a positive driving force for retail performance (Briedis et al., 2020; Weerawardena et al., 2006). Innovation may be considered a driver of brand competitiveness, and it is, therefore, a significant predictor of a company's brand performance (Wong and Merrilees, 2007). Thus, this study takes into account transaction-specific performance by taking into consideration an innovative payment technology- contactless payment during a transaction experience in terms of how the retailers perform during transaction at the checkout.

### **2.6.6 Transaction-specific Brand Personality**

Just like people, a brand has its own distinct personality. A brand's personality is vital to understanding the target market, as consumers utilize a brand's personality to reveal information about themselves. For Sirgy (1982), when the personality of the brand is similar to the self-concept, it will lead to increased preference for the brand. Not only is the brand personality an enduring characteristic, but it also serves to distinguish brands in the market (Aaker, 1996a; Conejo et al., 2017; George and Anandkumar, 2018; Oklevik et al., 2021). In the context of the study, the aim is to explore what human characteristics are associated with contactless payment (i.e., smart, upper class, sophisticated, reliable, simple) during a transaction experience.

Brand personality is a critical element of brand equity, as stated by Aaker (1996a). It is possible to have brand personality since customers have expectations of personality qualities when dealing with brands. Additionally, this influences their impressions of the brands as well as their creation and development of emotional interactions with the companies (Aaker, 1996a; Conejo et al., 2017; George and Anandkumar, 2018; Oklevik et al., 2021; Stancu et al., 2021). As a brand personality gains prevalence, it can boost the value of a set of distinctive and attractive brand images and so help to strengthen brand equity (Aaker, 1991; Aaker, 1996a; Keller, 1993; Keller and Richey, 2017; Liao et al., 2017; Ranfagni et. al., 2016).

In an attempt to better communicate with the intangible world, human beings tend to anthropomorphize objects in order to make their interactions more personal. Hence, the literature explores the topic of brand personality by using human descriptions to describe brands (Conejo et al., 2017; Freling and

Forbes, 2005; George and Anandkumar, 2018; Geuens et al., 2009; Keller and Richey, 2017.; Lee and Kim, 2020; Maehle et al., 2011; Plummer, 2000; Stancu et al., 2021). A brand's personality qualities are influenced by all consumer contacts with the brand, whether they are direct or indirect (Plummer, 2000). The seminal work of Aaker (1997, p. 347) defines brand personality as “the set of human characteristics associated with a brand”. People prefer to think of goods as part of their ‘self’ and hence identify with brands that have a strong brand identity (Azoulay and Kapferer, 2003; Belk, 1988). This means a consumer is able to self-identify with a brand depending on how well their personality aligns with the brand's traits (Louis and Lombart, 2010; Oklevik et al., 2021; Sirgy, 1982).

The fundamental characteristics which brands possess including a colourful description of the traits (of which a brand may exhibit a multitude), and five individual dimensions: ‘Excitement’ (brave, lively, and imaginative qualities), ‘Sincerity’ (down-to-earth, truthful, and wholesome qualities), ‘Competence’ (credible, smart, and productive qualities), ‘Sophistication’ (lovable, elegant, and high-class qualities), and ‘Ruggedness’ (multifaceted, intricate, masculine, and tough). Other studies have looked at building brand personality factors. Bosnjak et al. (2007) is an example of how researchers used the theory to arrive at a four-factor structure, which included factors such as ‘drive’ (motivating, daring, and mundane), ‘conscientiousness’ (efficient, orderly, and punctual), ‘emotion’ (affectionate, courteous, and sentimentality), and ‘shallowness’ (selfish, arrogant and hypocritical) leading to extreme entrepreneurship: courage, competence, creativity, risk-taking, and experience (activity, responsibility, aggressiveness, simplicity and emotionality).

Relational marketing's brand personality is an important idea since it describes all the personality features that are linked with a brand and has its own set of values (Conejo et al., 2017; Louis and Lombart, 2010). Having a clear idea of the brand personality is a requirement in order to successfully create and foster consumer-brand interactions. The findings demonstrate how consumer relationships influence both individual-level consumer behaviour and product-level performance indicators (Fournier, 1998; Freling and Forbes, 2005; George and Anandkumar, 2018; Keller and Richey, 2017; Sung et al., 2009; Sung and Kim, 2010). Brands possess emotions and traits that can be conveyed through personality, which draw from the brand's underlying principles. Additional personality development takes place through associations with the ‘typical user’ imagery, the company's customers' connections with the company's personnel, and emulators’ and adherents' ties to the company (Aaker, 1997). In order to facilitate consistency, managers must make sure that a brand's personality is consistently portrayed in all facets of a business.

Consumers' mental representations of tangible properties convey vivid, full, and more personal meaning than do physical properties (Siguaw et al., 1999). This study explores brand personality from a different perspective, specifically, the brand personality of an innovative payment technology (that is, the contactless debit/credit cards, Apple Pay etc.). Therefore, the focus is on how customers, after a positive transaction experience, personalize their payment (transaction) experience in terms of the payment instrument and of the organization itself that has adopted the technology. The aim is to find out how customers perceive a transaction with contactless payment and how they relate to characterize their transaction experience in terms of transaction-specific brand personality, for example, smart, sophisticated, reliable, simple, exciting, or upper-class.

This study defined transaction-specific personality as the set of human characteristics associated with a transaction/payment method (Aaker, 1997; Grohmann, 2009) mostly in a symbolic way to differentiate the organization providing the transaction experience from its competitors (Aaker, 1996; Conejo et al., 2017; George and Anandkumar, 2018; Liao et al., 2017) so as to deliver a vivid and more personal meaning to the consumers (Biel, 1993; ; Keller, 1993; Keller and Richey, 2017; Siguaw et al., 1999).

### **2.6.7 Transaction-specific Associations**

Brand associations are formed from past brand interactions (Emari et al., 2012; Füller and Bilgram, 2017; Keller, 2003; Krishnan, 1996; Motta, 2021; Pansari and Kumar, 2017; Phong et al., 2020). These encounters comprise a customer's direct experience of buying, consuming, and experiencing the brand and hence have a significant impact on the brand associations generated (Kempf and Smith, 1998; Motta, 2021; Wear et al., 2018). 'Brand associations' include everything 'linked' in memory to a brand, while, according to Hamade and Khan (2020) and Keller (1998), they are conceptual nodes which are connected to the brand node in memory and which encapsulate the meaning of the brand for customers.

When a consumer is considering the brand, information about it is either favourable or unfavourable in their thoughts, and that knowledge is attached to the node of the brain's memory (Emari et al., 2012; Hamade and Khan, 2020). Studies (Keller, 1993; Phong et al., 2020; Romaniuk and Sharp, 2003, Zha et al., 2020) show that everything associated with a brand name in consumer recollection tends to be an indicator of that brand's image. Aaker (1996) identified three brand association categories while at the same time developing a method for measuring brand equity.

There are three associations that companies can make: between a product or service and the brand, between an organization and the brand, and between a person and their own brand. In addition to other nodes associated with the brand in memory, brand associations also refer to the 'other informational nodes' linked to the brand. It is the favourability, strength, and distinctiveness of the brand associations that are directly accountable for the variation in the brand's impact on consumers (Aaker, 1991; Hamade and Khan, 2020; Keller, 2003).

The author (Aaker, 1991) discovered that, according to his research, the most valuable component of a brand name is what people see as the attributes, or aspects, that go along with the product. The researcher discovered 11 classifications of such associations as follows: product characteristics, intangibles, customer benefits, relative price, use/application, user/customer, celebrity/person, lifestyle/personality, product class, competitor, and county/geographic area. Furthermore, Keller divided the things in this category into three key classifications: characteristics, benefits, and attitudes. Brand image, brand attitude, and perceived quality were studied by Low and Lamb (2000) as variables in brand associations.

Having a firm understanding of the level of consumer brand knowledge is essential for developing marketing efforts to increase brand equity (Keller, 2003a). Anderson (1983) described brand knowledge as a collection of related ideas associated to a brand and referred to it as a 'node in consumer memory' that includes memories people have that are tied to the brand (Aaker, 2003; Hamade et al., 2021; Keller, 2003a; Supphellen, 2000).

Consumers' perceptions of advantages and product experiences, as well as their sentiments, ideas, and attitudes towards a brand (Broniarczyk and Alba 1994; Keller, 2003a; Motta, 2021; Zha et al., 2020), can be represented through descriptive adjectives such as 'elegant,' 'strong,' and 'chic,' thus creating a distinct brand personality (Maehle and Supphellen, 2011; Plummer, 1985). The establishment of distinctive brand associations serves as a foundation for brand differentiation, therefore demonstrating a company's brand strategy to have a beneficial influence on consumer decisions (Carpenter et al., 1994; Motta, 2021; Pechmann and Ratneshwar, 1991; Phong et al., 2020).

In the consumers' memory, the network of brand associations is a fundamental building block for CBBE (Christodoulides and de Chernatony, 2010; Keller, 2003; Robertson et al., 2021). It includes features that enable the item to perform its purpose, as well as its applicability and location of use (Keller, 1993). The concept of brand association is emphasized by Chen (2001), who notes that, as

compared to others' assets, brand association is the most crucial for developing brand equity (Aaker, 1991). Because of this, we may state that brand associations can serve as the source of consumer motivation and purchase intent. Branding is a crucial component of both the marketer and consumer marketing. Brand associations help brands identify, position, and promote themselves, creating good attitudes and feelings toward the brand (Low and Lamb, 2000): "Consumers use brand associations to help process, organize, and retrieve information in memory and to aid them in making purchase decisions" (Aaker, 1991, pp. 109-13).

Associations play an important role in the consumer's product evaluation and choice (Osselaer and Janiszewski, 2001) and are fundamental to the understanding of inference making (Alba et al., 1991), categorization (Sujan, 1985), product evaluation (Broniarczyk and Alba, 1994), persuasion (Greenwald and Leavitt, 1984), and brand equity (Keller, 1993, 1998). Association with a brand can be emotional or rational, and may stem from associations the customer has with the brand, either positive or negative, connected to a particular node in the brain's memory (Emari et al., 2012). This emotional/rational connection facilitates the process of differentiating and extending the brand (Osselaer and Janiszewski, 2001).

In this study, the associations that are linked to contactless payment experience are explored. The research explores the transaction-specific associations formed during customers' transaction experience and their effect on transaction-specific brand equity, and it defines transaction specific associations as the informational nodes linked to the brand node in memory (Aaker, 1991; Emari et al., 2012; Füller and Bilgram, 2017; Keller, 1998; Motta, 2021) that contains the meaning of the brand/payment instrument (Keller, 1998), including the payment procedure of the company, and that is related to the information (Emari et al., 2012; Osselaer and Janiszewski, 2001) regarding what is in the customer's mind about their entire transaction experience (Emari et al., 2012; Keller, 1998).

## **2.7 TRANSACTION -SPECIFIC BRAND EQUITY**

When it comes to brand equity, there have been numerous investigations by different academics (Broniarczyk and Alba 1994; Cronin et al., 2000; Keller and Brexendorf, 2017; Liu, 2020; Tasci, 2020; Zolo et al., 2020); nonetheless, all these studies stem from a similar approach. Brand equity is the differential customer response to a brand's marketing mix, and it is caused by the ways in which consumers perceive the brand (Aaker, 1991; Keller, 1993). For the second theory, the term 'brand equity' means the additional value a company's brand name provides to a product (Altaf et al., 2018; Erdem and Swait, 1998; Wernerfelt, 1988). Distributive equity has the potential to be crucial in regard

to driving happiness and loyalty when it is defined based on the transaction-specific versus cumulative qualities of the constructs involved (Olson and Johnson, 2003; Wagner et al., 2021). The research firm claims that satisfaction is a mediator in the relationship between equity and loyalty, as the latter factors are distinctive to transactions. As stated theoretically, transaction-specific equity is more bottom-up or concrete than an equity structure built on theoretical assumptions.

In the third context, brand equity is defined as the market worth of a company less the value of its tangible assets (Simon and Sullivan, 1993). Some analysis revealed that the findings of CBBE (customer-based brand equity) do not sufficiently explain FBBE (financial-based brand equity), and hence calls for treating the two ideas separately (Paul, 2018; Nguyen, 2015). The conclusion is that the sole goal of this research is to examine the value perspective of the customer, in contrast to transaction experience and the resulting brand equity (transaction-specific). Thus, only the contribution to brand equity that is achieved from a positive transaction experience is focused on, which is termed 'transaction-specific brand equity' (and not the impact of the entire customer experience and its impact on overall brand equity). This particular type of brand equity is termed 'transaction-specific brand equity' (TBE), as it is the part of the brand equity that is transaction-specific and the definition takes into account some past definitions of various types of brand equity found in the literature. Olsen and Johnson (2003) considered this concept in their study and looked into the cumulative version of TBE.

Aaker (1991) defined brand equity (BE) as a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customer. Broniarczyk and Alba (1994, p. 214) defined brand equity as "the value a brand name adds to a product", while Barwise (1993, p. 100) defined it as "a differentiated, clear image that goes beyond simple product preference". CBBE, which refers to brand equity derived from consumer perceptions, has been theorized by numerous authors and researchers as the differential effect that brand knowledge has on consumer response to the marketing of that brand (Keller, 2003); 'the driving force for incremental financial gains to the firm' (Lassar et al., 1995), "the added value endowed by the brand to the product as perceived by a consumer" (Park and Srinivasan 1994, p. 271), and "the value attached to a brand because of the powerful relationship that has been developed between the brand and customers and other stakeholders over time" (Keegan, 1995, p. 323).

After reviewing literature and considering various definitions of brand equity/customer-based brand equity, a definition for transaction-specific brand equity (TBE) was generated that was adapted to this study. It is defined as the differential effect (Barwise 1993; Keller, 1993; Keller and Brexendorf, 2017)



that retail brand knowledge (from the transaction experience) has on consumer response to the marketing of that retail brand (Keller, 1993; Keller and Brexendorf, 2017) and the added value to that retail brand as perceived by a consumer (Aaker, 1991; Broniarczyk and Alba 1994; Keegan et al., 1995; Park and Srinivasan 1994). This research tends to study transaction experience (TE) and the brand equity that is generated from the transaction experience as mentioned before is termed in this study as transaction-specific brand equity (TBE), that is, the brand equity that an organization can achieve through creating a positive transaction experience for their customers. As mentioned above, as there is very limited work done in regard to TBE, it is important to explore similar concepts like brand equity and customer-based brand equity, from which TBE was derived so as to have a clearer view of the concept of transaction experience. The next section discusses brand equity and customer generated brand equity, the two main concepts of equity in the marketing/brand management literature.

### **2.7.1 Brand Equity**

In addition to being significant in both business and academic studies, brand equity is also critical for successful marketing, as it can grant companies advantages over their competition (Aaker, 1996a; Keller, 2008; Keller, 1993; Keller and Brexendorf, 2017; Khoshtaria et al., 2020; Zia et al., 2021), and it has become a critical topic for analysis in domestic marketing (Aaker, 1992; Aaker, 1991; Madden et al., 2006) and social media marketing (Pramudhita and Madiawati, 2021; Rusfian and Alessandro, 2021).

One of the guiding concepts of marketing for almost two decades has been the idea of brand equity, also known as the sustainable value added of a brand name (Aaker, 1996a; Keller, 1993; Liu, 2020). The issue of brand equity emerged as one of the most crucial topics for marketing management in the 1990s (Aaker, 1996; Cobb-Walgren et al., 1995; Dyson et al., 1996; Keller, 1993; Lassar et al., 1995; Leuthesser, 1988). Since then, brand equity has been considered in many contexts: the added value endowed by the brand name (Farquhar, 1989); brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets (Aaker, 1991); the differential effect of brand knowledge on consumer response to the marketing of the brand (Keller, 1993); incremental utility (Simon and Sullivan, 1993); total utility (Swait et al., 1993); the difference between overall brand preference and multi-attributed preference based on objectively measured attribute levels (Park and Srinivasan, 1994); and overall quality and choice intention (Agarwal and Rao, 1996). These numerous definitions imply that brand equity is the incremental value of a product due to the brand name (Srivastava and Shocker, 1991).

One of the most widely accepted and comprehensive definitions of brand equity provided by Aaker (1991) is as follows: A set of brand assets and liabilities linked to a brand, such as its name and symbol, that can be considered assets or liabilities for a firm and its customers, depending on the impact the asset or liability has on the value provided by a product or service. According to Aaker, four main factors - brand awareness, brand associations, perceived quality, and brand loyalty - are the most crucial for consumers. Brand equity is a five-stage development process, including birth, awareness, association, quality, and loyalty, which are developed using Aaker's (1991) model of brand equity. In their research, they discovered that brand equity is more connected to the number of times a customer purchases from a company, improved quality perception, more brand loyalty, and a larger range of uses for the brand. Another view, presented by Ambler (1997), is that brand equity is a reflection of marketing performance, which may take the shape of financial, attitudinal, or behavioural results.

Brand equity can be considered from three viewpoints: the customer-focused, the financial, and the combined perspectives. The multi-dimensional ideas of brand strength and brand value that subsume the customer-based brand equity form one concept: customer-driven brand equity (Srivastava and Shocker, 1991; Stukalina and Pavlyuk, 2021). In contrast, Blackston (1995) used the terms 'brand equity', 'brand value', and 'brand meaning' to denote brand salience, brand associations, and brand personality, respectively. Brand equity guru, Keller (1993), defined brand equity as the difference in consumer response to marketing of the brand, based on that brand's understanding.

The financial perspective considers incremental future cash flows, discounted at the cost of a competing brand, that stem from a branded product's sales (Simon and Sullivan, 1993). Using the financial market's methodology to measure a company's brand equity, the financial views apply the financial market value-based procedure (Simon and Sullivan, 1993). For manufacturers, suppliers, and retailers, the strategic implications of brand equity are important, but investors are more interested in something that equates more simply to revenue (Gyeabour and Kaplan, 2020; Walgren and Ruble, 1995). The next section explores the concept of customer-based brand equity in more detail, as this study also adopts a customer perspective approach to brand equity.

### **2.7.2 Customer Based Brand Equity**

It is brand equity in the customer's eyes that indicates a favourable impact from branding activities (Keller, 1993; 2020). While on the surface, conceptualizing brand equity via this lens might provide actionable marketing plans and techniques, in addition, this lens provides particular guidance for both marketing research and managerial decision making (Keller, 1993; 2020). Managers can better

evaluate their company's marketing efforts and the impact on consumer brand knowledge if they track how long customer brand equity lasts over time. New models for various types of customer-based brand equity have been designed to enable companies to understand this critical concept (Aaker, 1991; Berry, 2000; Keller, 1998; Keller, 2020; Nablock et al., 2018).

The last two decades have seen a plethora of research initiatives on consumer-based brand equity in marketing and management (e.g., Aaker, 1991; Almeyda and George, 2020; Alwi et al., 2016; Biel, 1992; Carmen et al., 2010; Cho and Hwang, 2020; Colicev et al., 2018; Cobb-Walgren et al., 1995; Keller, 1993, 2002; 2020; Kim and Kim, 2004; Kim et al., 2003; Konecnik and Gartner, 2007; Lee and Back, 2008, 2010; Orth and Lopetcharat, 2006; Pappu and Quester, 2006; Nablock et al., 2018; Stocchi et al., 2021; Tasci, 2020). These studies ranged from consumer goods brands (e.g., Cobb-Walgren et al., 1995; Keller, 2002; 2020; Orth and Lopetcharat, 2006) to service brands, such as hotels (Hsu et al., 2011; Kim and Kim, 2005; Kim et al., 2008; Liu, 2020; Šerić et al., 2017; Tasci, 2020), restaurants (Kim and Kim, 2004), conferences and exhibitions (Camarero et al., 2010; Lee and Back, 2008, 2010), and tourism destinations (Boo et al., 2009; Ekinici, 2018; Horng et al., 2012; Konecnik and Gartner, 2007; Pramudhita and Madiawati, 2021).

Two commonly accepted theories for brand equity are those developed by Aaker (1991) and Keller (2010). (1993). Keller (1993) and Aaker (1991) each defined brand equity from a consumer perspective, according to their views about the importance of consumers' memory-based brand associations. They both also concurred that the value of a brand is made up of different dimensions which are rooted in consumers' specific brand equity. as stated by Keller (1993) referred to customer-based brand equity as customer-centred brand equity and defined it as “the differential effect of brand knowledge on consumer response to the marketing of a brand” (Keller, 1993, p. 2).

Brand equity can be understood as the total worth of the brand or the value that can be easily sold or taken into a balance sheet (Feldwick, 1996), However, customer-based brand equity is defined from the customer's perspective and based on their awareness, their affinity, and their association with the brand (Washburn and Plank, 2002). Indeed, promoters maintain that a brand must have worth to customers if it has value. The brand's lack of meaning to the customer precludes the rest of the definitions from having any impact (Cobb-Walgren et al., 1995; Keller, 1993).

Keller (1993) stated that a brand's customer-based brand equity can be positive or negative depending on whether customers react more or less favourably to certain elements of the marketing mix. When

customers have knowledge of the brand and retain favourable, powerful and unique brand associations, then brand equity is generated (Keller, 2008, 2020). Customer-based brand equity is divided into two categories in the marketing literature (Cobb-Walgren et al., 1995; Yoo and Donthu, 2001): consumer perception (brand awareness, brand associations, perceived quality) and consumer behaviour (brand loyalty, willingness to pay a high price). According to Lassar et al. (2005), brand equity refers to the perceived utility and desirability of a product that is associated with a brand name. In their view, a customer-based brand equity rating primarily assesses perceptual characteristics and excludes behavioural and attitudinal characteristics, such as loyalty. Thus, it differs from Aaker's (1991) definition, which incorporates a wider definition of brand equity.

The concepts laid out by marketing and management gurus form the conceptual basis for customer-based brand equity measurement research. However, in contrast to Aaker (1991), this research concentrates on five dimensions of brand equity, namely, brand awareness, brand associations, brand loyalty, perceived quality, and additional assets, which benefit the brand from a proprietary standpoint. Keller (1993) favoured two main techniques to assess customer-based brand equity: direct and indirect. Additionally, he focused on two different constructs: brand awareness and brand image. Using an indirect approach, the firm seeks to identify customer-based brand equity ties and distribution channels, as well as the impact of marketing communications, and measures brand awareness and the relationships among brand associations (Keller, 2003).

In a paper titled 'Customer-Based versus Financial/Market-Based Brand Equity', Silverman et al. (1999) sought to compare customer-based versus financial/market-based measures of brand equity. As a result, conclusions drawn from the analysis of customer-based research imply that measures of customer-based brand perceptions are indeed a reliable representation of the brand's marketplace performance and, by extension, the customer-based brand equity is a significant factor that drives revenue growth for the business (Gyeabour and Kaplan, 2020; Lassar et al., 1995). Thus, it is evident that customer-based brand equity is important not only from its own perspective but also contributes to financial equity. The significance/importance of brand equity (customer perspective) is discussed in the next section, which also justifies the reason for this paper to study brand equity (transaction-specific) from the customers' perspective.

### **2.7.3 Importance of Brand Equity**

The value of brand equity, particularly in relation to strategic management decisions, has become more widely accepted and discussed in academia and practice (Alwi and Kitche, 2014; Christodoulides and

Chernatony, 2010; Ishaq and Di Maria, 2020; Keller and Lehmann, 2006). The connection to profitable performances and competitive advantages is direct and favourable (Bello and Holbrook, 1995; Kim et al., 2003). When measured accurately and objectively, brand equity is the ideal metric for analysing the long-term impact of marketing initiatives (Simon and Sullivan, 1993). Conceptualizing, measuring, and managing brand equity gained increased prominence in the eyes of practitioners and scholars during the course of the 1980s (Aaker, 1996, 1991; Aaker and Keller, 1990; Ailawadi et al., 2003; Erdem et al., 2006; Keller, 2020; Liu, 2020; Netemeyer et al., 2004; Tasci, 2020).

As retailers move toward attempts to express ever more complex and intangible ideas as part of brand management initiatives, brand asset management becomes an increasingly important subject for marketers (Goodchild and Callow, 2001; Venkatesh and Davis, 2000; Zollo et al., 2020). Consumers will build feelings and associations with brands and will thus develop loyalty because of their 'added value' (Barwise, 1993). Companies have evolved to regard brands as important assets, and as a result, it is essential to learn how to establish, measure, and manage brand value (Ishaq and Di Maria; 2020; Kapferer, 1997).

A brand is one of the most valuable assets for any company, and it has been widely considered to be an essential rationale for consumer choice. Brands can function as a tool for consumers to assess the uniqueness of the products and their ability to enhance customers' trust and confidence (Aaker, 1991; Bhatti et al., 2021; Chung et al., 2013; Ebrahim et al., 2020; Emari et al., 2012; Huang and Sarigollu, 2011; Jung et al., 2021; Kremer and Viot, 2012; Manzoor et al., 2020; Phong et al., 2020; Sharma and Sharma, 2021). Brand equity encourages additional income, reduced costs, and bigger profits. It also has a direct effect on a company's ability to command higher prices, resulting in customers being willing to seek out new distribution channels, marketing communications' effectiveness, and brand expansions and licensing options (Keller, 2003). There is a positive correlation between strong brand equity and brand expansions, resistance to promotional activities by competitors, and the development of barriers to entry that lead to a competitive advantage (Farquhar, 1989; Severi and Severi and Ling, 2013).

The well-known correlation between strong brand equity and increased customer purchase intentions, brand decision behaviour, and brand preference has been documented (Badenhop and Frassetto, 2021; Cobb-Walgreen et al., 1995; Freling et al., 2011; Romaniuk and Nenycz-Thiel, 2013). While conducting brand equity research, at least implicitly, researchers acknowledge that there are numerous value

creation methods for brands, and the value of a brand provides a common denominator that is used in interpreting marketing strategies and quantifying the value of a brand (Keller 1998; 2020).

As a result, it is critical to the company and its management that a strong brand identity be maintained. It takes time, planning, and perseverance to cultivate a brand that is centred on customer satisfaction and encourages loyalty. A greater share of the customer wallet and a higher percentage of repeat business are also tangible results. Nonetheless, brand equity is frequently thought of as an intangible asset accrued through years of brand identity, recognizable name, consistent messaging, marketing to consumers, and the offer of socially conscious products and services. It indicates the health of the brand, in particular, its market position (Sinha et al., 2008). However, this asset, if it is not handled with care and skill, will inevitably harm the brand equity over time (Keller, 2003; Keller, 2020).

#### **2.7.4 Dimensions of Brand Equity**

Brand equity, according to Aaker (1991), is a set of brand assets and liabilities associated with a brand, the name and symbol, that either augment or detract from the value of a product or service to a firm and/or to that firm's customers. From a different perspective, Keller (2003, 2020) classified brand knowledge as a basic component of brand equity, and stated that from the customer's perspective, brand equity is defined as the difference in customer response to marketing for the brand as a result of brand knowledge. Thus, brand equity, as created by Aaker (1991) and refined by Keller (1993, 2003, 2020), can be defined as awareness, associations, quality, and loyalty. In marketing and brand management, these four elements of brand equity are the most commonly mentioned and most frequently discussed. According to Keller (2003), awareness of the brand is the initial stage of building equity in the brand.

Aaker (1991) defined brand awareness as a customer's capacity to recall or recognize a brand and stated that one of the components of customer-based brand equity is brand awareness (Aaker, 1991, 1996). Hence, to improve a brand's equity, it is crucial to focus on brand awareness and brand image. Later on, researchers (Fong and Goh; 2021; Haeruddin, 2021; Pappu and Quester, 2008, 2006, 2017; Tong and Hawley, 2009; Trapp et al., 2017; Yoo et al., 2000) found that empirical validation of brand awareness was one of the dimensions of customer-based brand equity. They confirmed this conclusion by studying the effects of brands on consumers in real-world settings. According to Keller (1993, 2020), brand awareness is a factor in the level of a company's knowledge equity, and the depth and breadth of brand awareness determine the equity of the brand.

Brand associations, according to most academics, reflect image qualities that are good, favourable, and distinct for a brand (Aaker, 1996; Keller, 2020; Pappu and Quester, 2017, Tasci, 2020). The concept of brand association was developed by Aaker (1991), who considered it to be everything connected in memory to a brand. As Aaker (1996) explained, the strength of a link to a brand is magnified when it is based on repeated exposure or numerous different situations. Researchers have shown brand associations to be one of the elements of customer-based brand equity (Keller, 2020; Pappu and Quester, 2008, 2006, 2017; Tasci, 2020; Tong and Hawley, 2009; Yoo et al., 2000). Customer equity of the brand also depends on brand association, according to Keller (1993). Aaker (1991), Keller (1993, 2020), and Pappu and Quester (2017) defined perceived quality as the customer's perception of the overall quality or superiority of a product or service with respect to its intended purpose, in comparison to alternatives (Zeithaml, 1988) Customer-based brand equity is another term for this concept. Pappu and colleagues (2008) conducted an empirical study to establish perceived quality as a determinant of customer-based brand equity.

Brand loyalty is defined as a customer's commitment to a certain brand (Aaker, 1991). Aaker (1991, 1996) viewed it as a strongly held commitment to purchase or patronize a preferred product or service on a recurring basis in the future, despite situational factors and marketing efforts that have the potential to promote switching behaviour (Aaker, 1991, 1996; Oliver, 1997). Brand loyalty has been scientifically validated by Pappu et al. (2008, 2006, 2017) as a measure of customer-based brand equity. Therefore, brand loyalty helps to build customer-based brand equity for a company (Keller, 2020; Kumar et al., 2013; Trapp et al., 2017; Zia et al., 2021). Brand equity was measured by Cobb-Walgren et al. (1995), who employed a consumer-based perceptual measure of brand equity that included brand awareness, brand associations, and perceived quality to determine consumer-based brand equity. With the help of cross-cultural data, Yoo and Donthu (2001) built a multidimensional model for CBBE and assessed its effectiveness.

In the case of CBBE, there are three aspects to consider: brand loyalty, perceived quality, and brand connotations (combining brand awareness and brand associations into one dimension). The CBBE scale developed by Yoo and Donthu was confirmed by Washburn and Plank (2002). According to Alvarado et al. (2020), Jeon and Yoo (2021) and Netemeyer et al. (2004), perceived quality/value, distinctiveness, and willingness to pay a premium are the three most important elements of brand equity in the consumer marketplace. Previously, Aaker (1996, 1991) defined brand equity as consisting of brand awareness, brand associations, perceived quality, and brand loyalty, whereas Keller (1993, 2001) defined brand equity as consisting of brand knowledge, perceived quality, and brand loyalty.

According to Lassar et al. (1995), it comprises brand performance, commitment, perceived value, and trustworthiness; while Prasad and Dev (2000) and (Netemeyer et al. (2004). saw it as perceived value and perceived quality.

Brand equity has been measured according to the three perspectives: at the customer level (Aaker, 1991; Aaker and Joachimsthaler, 2000; Baker et al., 2005; Bendixen et al., 2004; Berry, 2000; Chen, 2001; Christodoulides et al., 2012; Haeruddin and Haeruddin, 2020; Jeon and Yoo, 2021; Keller, 2020; Nguyen and Nguyen, 2021; Shocker et al., 1994; Srinivasan et al., 2005; Stukalina and Pavlyuk; 2021; Tong and Hawley, 2009), the company or firm level (Badenhop and Frasquet, 2021; Cobb-Walgren et al., 1995; Doyle, 2001; Dyson et al., 1996; Farquhar et al., 1991; Ferjani et al., 2009; Kapferer, 1997; Kim et al., 2003; King and Grace, 2009; Qureshi et al., 2021; Shanti and 2021), and the financial market level (Aaker and Jacobson, 1994; Barth et al., 1998; Gyeabour and Kaplan, 2020; Simon and Sullivan, 1993; Varadarajan, 2020). Many authors have also developed models that encompass all aspects of brand equity (Burmman et al., 2009; Epstein and Westbrook, 2001; Keller and Lehmann, 2003; Mukonza and Swarts, 2020; Srivastava et al., 1998).

## **2.8 BRAND EQUITY CONCEPTUALIZATION, THEORIES, AND MODELS**

The constant change in the external environment can be ascribed to the rebirth of interest in this field of study (Aaker, 1991; Keller and Brexendorf, 2017; Pappu and Quester, 2017; Trapp et al., 2018; Yoo et al., 2000). The primary incentives for measuring brand equity are financial and managerial in nature. In an era of constant mergers and acquisitions, brand equity financial indicators assist investors in determining the value of a brand or company (Simon and Sullivan, 1993). In the process of designing and reviewing brand equity plans, financial metrics that are usually used for accounting purposes provide little or no guidance to management. However, customer-based brand equity metrics (Aaker, 1991) can be used to assist managers in evaluating marketing strategies. For example, evaluating the impact of actions such as positioning and promotion on a brand's long-term health may be included in these metrics.

Aaker's (1991, 1996) and Keller's (1996) conceptualizations of brand equity are two of the most significant and well-known. Aaker defined value as the added value that a product or service provides to a company and/or its customers (1991, p. 15) and claimed brand awareness, brand loyalty, brand associations, and perceived quality to be the antecedents of brand equity. A brand's power, according to Keller (2020), is in the minds of consumers; it is based on what they have learned, felt, seen, and



heard about the brand over a prolonged period of time. Specifically, this is "the differential effect of brand knowledge on the response of consumers to brand marketing" (Keller, 1993, p. 2). Keller (2002, 2020) defined brand equity as a brand knowledge structure that is derived through awareness and associations, whereas Aaker (1991) provided a more comprehensive explanation of the term.

According to the majority of academics, the frameworks developed by Aaker (1996) and Keller (1993, 2020) are two examples of frameworks that embody the features articulated in the majority of CBBE conceptualizations. Aaker stated that the value given by a product or service to a customer is represented as a succession of assets (liabilities). Associating a product with a brand name increases the perceived worth of the product in the eyes of the consumer. Aaker evaluated a brand's perceived quality, perceived worth, and originality, and the consumer's willingness to pay a price premium in order to determine whether the brand is worth investing in (Aaker, 1991, 1996).

According to Keller (1993, 2020), brand understanding has a distinct impact on the consumer response to brand marketing. He claimed that CBBE occurs "when the consumer is familiar with the brand and has some positive, strong, and unique brand associations in memory" (Keller, 1993, p. 2). Primary associations are positive, strong, and distinctive associations that are formed as a result of the perceived advantages of a brand (Keller, 1993, 2020). These beliefs and attitudes may be practical or symbolic in nature.

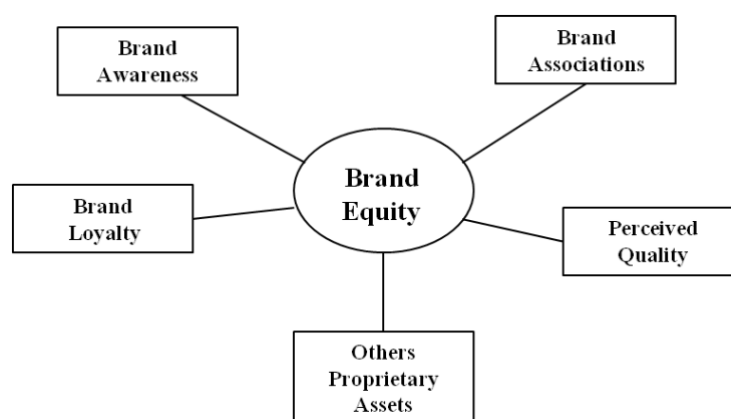
Researchers (Aaker, 1991; Aaker and Keller, 1990; Broniarczyk and Alba, 1994; Farquhar, 1989; Feldwick, 1996; Haeruddin, 2021; Keller, 2020; Loken and Roedder-John, 1993; Park et al., 1993) have conducted substantial research on brand equity. Despite this, advertising and market research experts emphasize the importance of brand equity in their work (Baldinger 1990, 1992; Blackston 1992, 1995; Pramudhita and Madiawati, 2021; Rusfian et al., 2021). Increasingly, businesses place a high value on their brands and hire brand asset managers to monitor and track their brand equity (e.g., Interbrand, Total Research Corporation, Millward Brown). Corporate brand identities are no longer created solely by firms, according previous research (Csaba and Bengtsson, 2006; Ind et al., 2013; Prahalad and Ramaswamy, 2004; Schau et al., 2009). Because branding has evolved into a collaborative, value-creation activity (Brodie et al., 2006; Merz et al., 2009), this study develops, validates, and proposes the possible dimensions of transaction-specific brand equity, which are based on Aaker's (1991, 1996) and Keller's (1993, 2020) conceptualization of customer-based brand equity.

The majority of researchers (Ahmad et al., 2021; Almeyda and George, 2020; Atilgan et al., 2009; Baalbaki, and Guzmán, 2016; Barwise, 1993; Boo et al., 2009; Ebrahim, 2020; Haeruddin, 2021; Kazmi et al., 2021; Kim and Kim, 2004; Konecnik and Gartner, 2007; Lassar et al., 1995; Netemeyer et al., 2004; Pappu et al., 2005; Ruan et al., 2020; Sharma, 2020; Shen et al., 2021; Valette-Florence et al., 2011; Washburn and Plank, 2002; Yoo and Donthu, 2001) studying brand equity (customer based) have encapsulated the conceptualization of Aaker (1991, 1996) and Keller (1993, 2003, 2020) and blended both the concepts together as a base for their work. The next section explores Aaker’s (1991) dimensions of brand equity.

### 2.8.1 Aaker’s Brand Equity Model

Aaker (1991) developed the most complete brand equity model, which consists of five assets that provide value to a company's reputation. Brand loyalty, brand recognition, perceived brand quality, brand associations, and other intellectual brand assets are all important factors in building a successful brand (patents, trademarks, and channel partnerships). In particular, it is noteworthy that Aaker (1991) included both perceptual and behavioural components of brand equity in his analysis (Myers, 2003). It has been reported that the Aaker (1991) notion of brand equity has been commonly used in past research on brand equity measurement (Kim & Kim, 2004). Aaker's Brand Equity Model measures the value of a company's brand.

FIGURE 2.4: AAKER’S DIMENSIONS OF BRAND EQUITY



Source: Aaker (1991)

## **Brand Awareness**

Brands differ in terms of their strength, influence, and value. The majority of consumers are unfamiliar with a brand, although they are aware of it. Aaker (1991, p. 61) described brand recall as “the ability of a potential consumer to recall the category in which a brand competes with another”. According to Aaker (1996), brand awareness is a critical component of brand equity that is sometimes overlooked even though it has an impact on choice by influencing which brands are highly rated and chosen (Aaker, 1991). Indeed, many businesses consider increasing brand recognition to be essential (Aaker, 1992). Brand awareness refers to a potential buyer's capacity to recall and recognize a particular brand (Aaker, 1991). As a result of purchasing a product from that category, it measures how frequently customers think about a certain brand or recognize it in the store. As a result, brand awareness is an important factor in determining whether or not to acquire a product. Brand awareness refers to the way in which buyers link a certain brand with a particular product (Aaker, 1996).

Effective communication necessitates the development of brand awareness, often known as top-of-mind awareness (Macdonald and Sharp, 2003; Netemeyer et al., 2004). Many marketing communications channels, such as television, phone, and online advertising, have made the consumer aware of the brand, which helps decrease the risk in product evaluation and selection when acquiring a product or service (Aaker, 1996; Buil et al., 2013; Keller and Lehmann, 2003; Rubio et al., 2014). Customers also use the heuristic as a decision-aid, which helps in the management of customer-based brand equity, as previously stated (Chung et al., 2013; Huang and Sarigollu, 2011; Norazah, 2013). The majority of brand equity conceptual models place an emphasis on awareness (Fong and Goh; 2021; Haeruddin, 2021; Pappu and Quester, 2017; Trapp et al., 2017). This is because the likelihood of consumers purchasing brands they recognize increases, resulting in increased profitability and sales (Baldauf et al., 2003). Many scholars, such as Aaker (1991, 1996), believe that brand awareness has a direct relationship with brand equity (Fong and Goh; 2021; Haeruddin, 2021; Pappu and Quester, 2017; Trapp et al., 2017; Pouromid and Iranzadeh, 2012).

## **Brand Associations**

Brand associations, often known as brand image, are probably the most well-known component of brand equity. A brand being associated with "anything in one's memory" is a common practice (Aaker, 1991, p. 109). Thus, customer perceptions of a brand, whether positive or negative, are referred to as brand association (Emari et al., 2012; Tasci, 2020). Therefore, a brand gathers information in order to achieve brand uniqueness and brand extension (Osselaer and Janiszewski, 2001). Product features, product classes, customer benefits and lifestyles, and geographic locations are all examples of brand

associations. Associations can assist customers in the assimilation of knowledge, the differentiation and extension of services, and the creation of positive sensations (Aaker, 1991). When there is a greater level of brand association, brand extension is more likely to be relevant to customers. Consumers can therefore use brand associations to help them assess, organize, and retrieve information that will aid them in making purchases (Aaker, 1991, 1992).

Brand associations can be recognized in a variety of ways and might even represent elements of a product or aspects of the brand that are not related to the product (Chen, 2001; Hamade and Khan, 2021). When it comes to acquiring differentiated benefits, Rio et al. (2001a) emphasized the relevance of brand name associations. According to Chen's (2001) categorization of brand associations, product and organizational associations are the most common types of associations. Associations help to increase brand loyalty and add value to both the organization and its members. In addition to processing and retrieving knowledge, Aaker (1991) claimed that it aids in the development of good attitudes and feelings, as well as the establishment of a basis for future extensions. According to Rio et al. (2001b), building and managing brand equity is a critical component of business success. In this view, strong brand equity indicates a substantial number of beneficial relationships among customers and other stakeholders (Aaker, 1991, 1996; Hamade and Khan, 2021; Pappu and Quester, 2017; Rio et al., 2001b; Tasci, 2020; Trapp et al., 2017; Zia et al., 2021).

### **Brand Loyalty**

In accordance with Aakers' approach of customer-driven brand equity, customer loyalty and contentment with the brand is exhibited through persistent purchasing behaviour. As defined by the Brand Loyalty Index (BLI), brand loyalty refers to an emotional and/or behavioural bias for a branded, tagged, or graded alternative or product choice (Sheth and Park, 1974). Moisescu (2005) asserted that brand loyalty adds value through cutting marketing expenses and leveraging trade, among other things. Because loyal customers expect the brand to be available at all times, maintaining existing customers is substantially less expensive than recruiting new ones. As Aaker (1992) pointed out, focusing on brand loyalty is often a successful strategy for managing equity because devoted customers are less likely to switch brands as a result of price advantages (Khattak et al., 2015; Phong et al., 2020).

According to Pitta and Katsanis (1995), brand equity helps consumers make better decisions about which brands to buy. Brand loyalty helps to reinforce and leverage the brand, resulting in increased revenue and the ability for companies to demand higher prices for products that have high brand loyalty (Khattak et al., 2015). Brand loyalty is the most important source of brand equity, as it lowers

marketing costs, increases price premiums, and increases market share. In order to increase brand loyalty, integrated marketing communications must be used (Hossain et al., 2020; Šerić and Gil-Saura, 2012). The practice of repurchasing or patronizing a preferred product results in the purchase of the same brand or brand set on a regular basis (Hossain et al., 2020; Luarn and Lin, 2003). In a similar vein, brand loyalty has an impact on their purchasing decisions (Ahmed, 2011; Ebrahim, 2020; Huang and Huddleston, 2009; Hossain et al., 2020; Lam, 2007; Martenson, 2007; Zia et al., 2021).

To put it another way, consumers are loyal to their preferred product brands and use well-known brand names to establish social identification with them (Sun et al., 2004). Because of their positive influence on brand equity, consumers build brand loyalty, resulting in a preference for the brand over that of competitors (Atilgan et al., 2005; Binninger, 2008; Ebrahim, 2020; Hossain et al., 2020; Palomba, 2021; Severi and Severi and Ling, 2013; Vogel et al., 2008; Zhang et al., 2014). Brand loyalty, according to Javalgi and Moberg (1997) and Palomba (2021), is defined in terms of behaviour, attitude, and choice of a brand. While behavioural analysis examines how often a brand is purchased, attitudinal analysis examines the preferences and attitudes of customers toward a particular brand. Customer brand loyalty, according to Aaker (1991), is defined as the likelihood of a customer switching brands, particularly when a brand changes its price or product features. It is well-known that brand loyalty is a component of brand equity (Aaker, 1991).

### **Perceived Quality**

The perceived quality of a product is one of the most important factors of brand equity (Aaker, 1996). A customer's perception of total product or service quality is defined as "the customer's perception of overall product or service quality or superiority relative to alternatives" (Zeithaml, 1988). A high perceived quality provides a reasonable justification for purchasing a brand name (Aaker, 1991, Zeithaml, 1988). A high perceived quality allows a brand to distinguish itself from the competition and attract customers who are prepared to pay a premium for it (Aaker, 1991). Perceived quality has evolved into a competitive need, and many firms now employ it as a strategic weapon to achieve superior results. They make use of it in order to boost customer satisfaction and value. When it comes to product and service quality, Kotler (2000a) underlined the link between customer satisfaction and company profitability.

In a recent brand selection study, it was demonstrated that perceived product quality is important (Morton, 1994). For Aaker (1992), the perception of quality is an important strategic factor, particularly in the context of brand equity; it increases value through encouraging purchases,

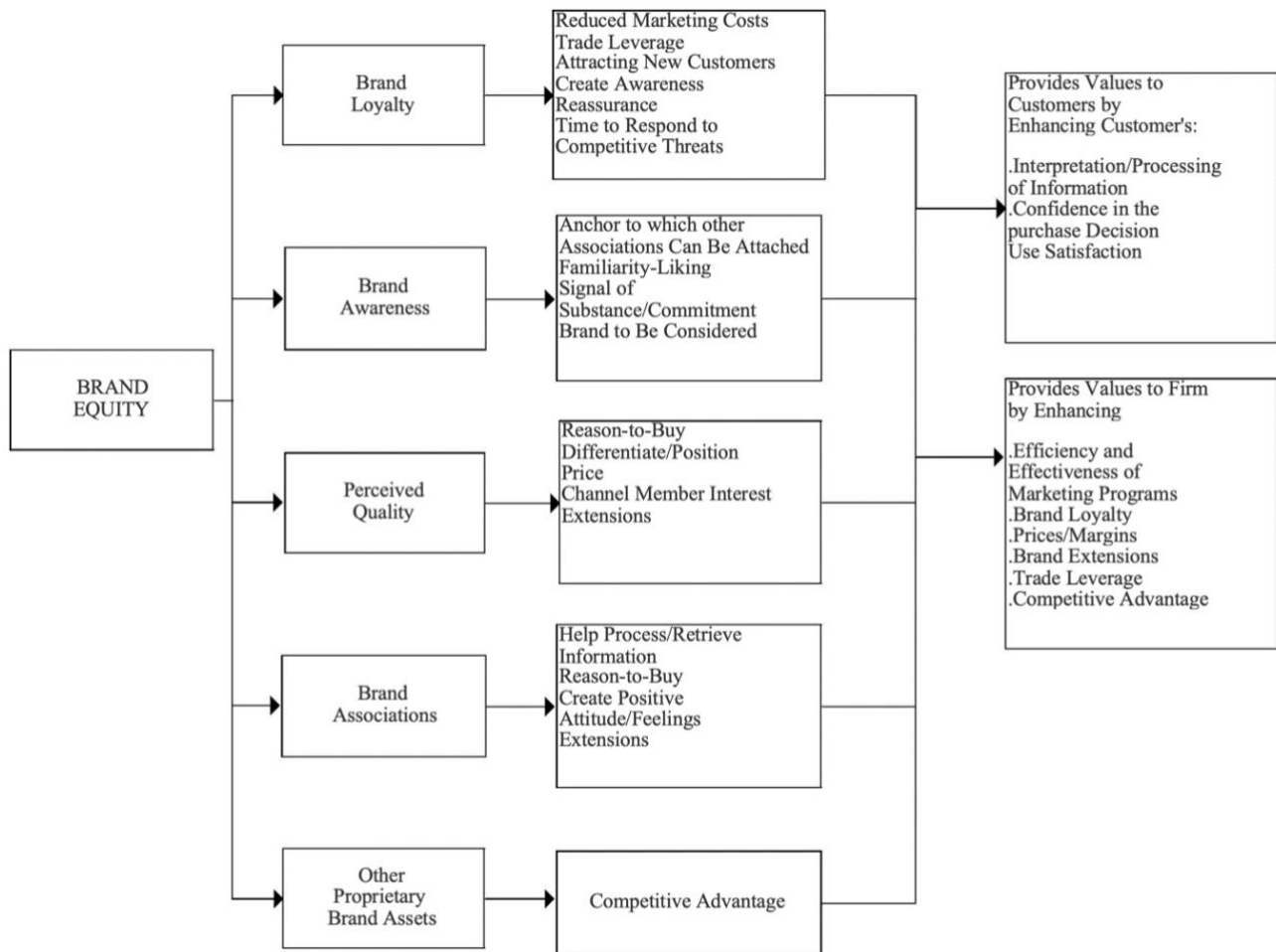
differentiating brands, attracting channel members, enabling line extensions, and supporting higher prices (1992). Perceived quality is a distinct asset from brand recognition (Aaker, 1991). It has been a major business emphasis for many organizations, and it can serve as an inspiration for tactics to increase brand equity (Aaker, 1991).

### **Other Brand Assets**

Moisescu (2005) divided brand assets into three categories based on Aaker's approach: patents, trademarks, and channel ties. Customers may be confused if two or more competitors utilize the same brand, logo, or product. However, a strong patent can prevent direct competitors from entering the purchasing process. By solidifying its position in a distribution route, a brand can indirectly influence the channel (Ovidiu, 2005). Aaker (1996) developed the concept of 'brand equity ten,' which comprises 10 components that are scattered throughout the five dimensions indicated above. A number of attributes of brand equity were mentioned, including brand loyalty, perceived quality/leadership, associations/differences, awareness of the brand, and market behaviour. As a measure of brand loyalty, the price premium and customer satisfaction/loyalty were collected.

As discussed above, one of the components of this dimension is perceived quality; which is also a component of leadership. The relationships and distinctions that make up the third dimension are described below. The fourth dimension is brand awareness, which includes the ability to recognize and recall a brand, and the final dimension is market behaviour, which includes market share and the extent to which a brand is distributed. This thesis aimed to operationalize brand equity and provide a standard measure that could be applied across products and markets. However, the findings of this study reveal only a few aspects that can contribute to the development of brand equity. Notably, the issues that remain unaddressed are the questions of how and which of these factors should be combined to capture brand equity, whether or not these items are exhaustive, and whether or not they are genuine. Figure 2.5 shows the Brand Equity Ten by Aaker (1991). In the following section, the concepts of brand equity and consumer-generated brand equity are discussed; both are important concepts in marketing and brand management.

Figure 2.5: Aaker's Brand equity ten



Source: Aaker, (1996)

Aaker (1996) provided a contrasting perspective to Keller (1993, 2003, 2020). He (1996), proposed that the structure of brand equity consists of brand awareness, perceived quality, brand associations, and brand loyalty as discussed above. He argued that this is because each sector is different. Consequently, the importance assigned to each component of the brand equity framework differs. A study conducted by Kim and Kim (2005), investigated the relationship between the brand equity components in the restaurant industry. This research looked at brand loyalty, awareness, perceived quality, and image, among other things. When it comes to comprehending customer-based brand equity, a number of authors have expressed concepts that are comparable.

According to Kayaman and Arasli (2007) and Liu (2020), customer-based brand equity comprises brand loyalty, perceived quality, brand image, and their interrelationships, as well as other factors. In

the same way that Lassar and colleagues (1995) and Kam and King (2010) noted that Aaker's (1991, 1996) methodology makes the process of measuring the concept of brand equity more straightforward; as a result, Aaker's (1996) methodology is widely acknowledged and employed by many academics (Keller, 1993; Low and Lamb Jr., 2000; Motameni and Shahrokhi, 1998; Prasad and Dev, 2000; Yoo and Donthu, 2001). This study employs Aaker's (1991) brand equity model, which is the most extensively quoted and experimentally tested of the several brand equity models available in the literature (Atilgan et al., 2005; Eagle and Kitchen, 2000; Faircloth et al., 2001; Khattak et al., 2015; Kim and Kim, 2004; Washburn and Plank, 2002; Yoo et al., 2000). To date, Aaker's (1991) dimensions of brand equity have been the most cited, and a number of researchers (Anderson, 2021; Buil et al., 2008; Christodoulides et al., 2015; Fong and Goh, 2021; Khattak et al., 2015; Khoshkam and Mikaeili, 2021; Myers, 2003; Shocker, 1993; Tong and Hawley, 2009; Rajasekar and Nalina, 2008; Sasmita and Suki, 2015; Ovidiu, 2005) have implemented, investigated, and tested Aaker's (1991, 1996) Brand Equity Model.

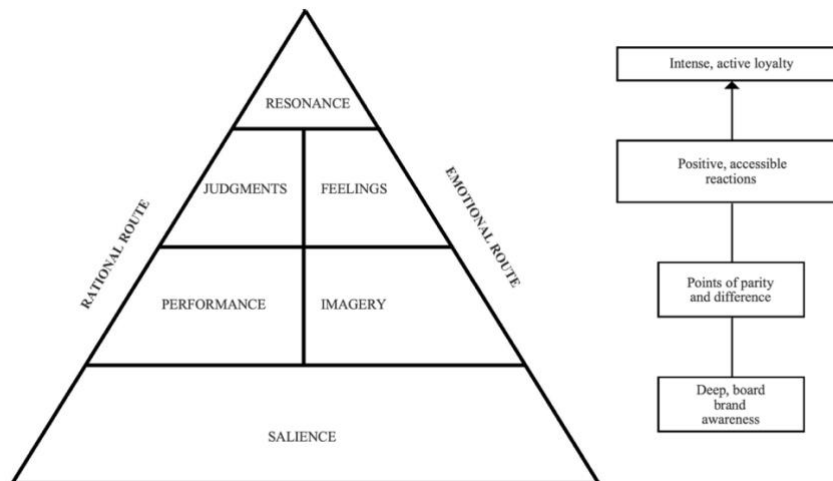
However, according to Christodoulides et al. (2015), Aaker's (1991) brand equity dimensions are questionable and "are accepted largely on the basis of face validity and no attempt is made to argue their relative importance or possible interrelation" (Shocker, 1993, p. 25). According to Aaker (1991), the effect of marketing mix components other than advertising on brand equity is not examined, which creates further concerns (Shocker, 1993). Increasing brand recognition and connotations, for example, can be beneficial. It could help explain why there is such a strong sense of brand loyalty. According to Aaker (1991), it is more concerned with outcome than with procedure. Aaker's (1991) model is more an outcome measure, as opposed to process (Shocker, 1993).

### **2.8.2 Keller's Customer Based Brand Equity (CBBE) Model**

As Keller (1993, 2020) described it, consumer-based brand equity is represented as an associative network, with associations acting as nodes in the network. Using the term 'brand equity,' he described it as 'variations in customer response to marketing'. The concept of brand equity is to influence how people perceive a product or service by providing them with positive experiences (Keller, 1993, Kuhn et al., 2008; Pina and Dias, 2021; Sarker et al., 2019). Customer attitudes and perceptions should be pleasant (Keller 1993, 2020) and Keller and Brexendorf (2017), and a firm should encourage these attitudes and views. Keller (2020) distinguished between the salience of a brand, its performances, its visuals, its sentiments, its judgments, and its relationships with other brands (1993).



Figure 2.6: Keller's CBBE Model



Source: Keller (1993)

Brand marketing has a greater favourable impact on consumers when they are familiar with the brand and have strong and good brand associations, according to Keller (1993) and Keller and Brexendorf (2017). It is possible to build a powerful brand by first determining its identity, meaning, responses, and, eventually, its relationship with the customer (Keller, 2003). A firm can develop a powerful brand through the use of six steps, namely, salience, performance, visuals, judgments, emotions, and resonance, all of which are important (Keller, 2003). It is all about reaching the pinnacle of the pyramid when it comes to brand building.

Keller (1993, 2001, 2003) developed the most comprehensive brand equity model currently available in the existing literature (Kuhn et al., 2008). Keller (2003) and Keller and Brexendorf (2017) emphasized the need to comprehend the multidimensionality of brand equity while developing a consumer behaviour theory. Keller (1993, 2001, 2003, 2020) based his customer-based brand equity on the qualities of brand equity identified by Aaker (1991), taking into account the similar dimensions of brand equity as Aaker (1991, 1996) but conceptualizing them in a different manner.

According to Keller (2001, 2020), the CBBE model consists of four steps, namely, brand identity, meaning, responses, and relationships, each of which is dependent on the one before it. CBBE is produced as a result of this interrelated process. Thus, Keller (2001) operationalizes six 'brand-building factors' that correspond to brand identity, branding meaning, branding responses, and developing brand connections.

### **Brand Identity / Brand Awareness**

This is the first stage of the CBBE model; it is concerned with brand identification and employs brand salience to determine brand awareness (Keller, 2008). Aaker (1991, 1996) defined brand awareness as a measure of brand equity that is distinct from other dimensions. The ability of a customer to recall and recognize a brand's name, logo, or symbol is referred to as brand awareness (Keller, 1993, 2020). Customers must be familiar with the product or service category in order to become familiar with the brand (Keller, 2001).

It has been suggested by Kuhn et al. (2008) that the first step in building a powerful brand is to ensure that the brand identity is correct. Buyers should be able to recognize the brand and correlate it with a specific product class or need in order to get the desired result. The range of purchasing and consumption contexts in which a brand comes to mind is referred to as brand salience (Kerri-Ann et al., 2008). Salience is subdivided into two sub-dimensions: need fulfilment and category identification. Keller (1993, 2020) suggested an architecture that integrates brand awareness and brand image in a single package.

### **Brand Meaning / Brand Associations**

According to Keller (2001), the second phase of the CBBE pyramid (in figure 2.6) is brand meaning. This phase is related to Aaker's (1991, 1996) concept of brand association as a dimension of brand equity, which is discussed further below. Brand association, according to Keller (1993, 2020), is defined as the way buyers recall a particular brand. Increasing positive equity rises in direct proportion to the degree to which these connections are distinctive, strong, and beneficial (Keller, 2002). Customer-based equity will be stronger for brands that have no place in consumers' minds or that hold a vague or confused position in their minds if customers strongly associate the brand with a positive use that is also distinct from the rest of the market (Keller, 1993, 2001, 2003, 2020).

A brand image is a collection of links in consumer memory that are usually arranged in some meaningful way, conveying viewpoints that may or may not reflect objective fact (Aaker 1991, pp. 109-110; Keller 1993, p. 3). Aaker (1991) and Keller (1993) both considered the brand image to be a complex structure with several marketing implications or values. According to Kuhn et al. (2008), the second step in Keller's approach is the development of brand meaning through the coupling of concrete and intangible brand connections. As a result, brand meaning can be divided into two categories: functional (brand performance) and abstract (image-related). Because of this, the higher the level of brand associations in the product, the more likely it is that the consumer will recall it and

remain loyal to the brand, so contributing to the development of brand equity (Jeo and Yoo, 2021; Keller, 2020; Romaniuk and Sharp, 2003).

### **Brand Response / Perceived Quality**

The third phase of the CBBE pyramid relies on the customer's response to the brand, marketing activities, and other sources of information. This stage is concerned with what customers believe or feel about the brand (Jeo and Yoo, 2021; Keller, 2003, 2020). Keller defines brand sentiments as follows (2003): warmth, happiness, excitement, security, societal approbation, and self-respect (Kuhn et al., 2008; Tasci, 2020). This enables businesses to concentrate on the brand's functional, emotional, and expressive benefits rather than its aesthetics (Kuhn et al., 2008, Tasci, 2020).

Perceived quality in branding, according to Aaker (1991) and Keller (2003a), is defined as the customer's sense of the overall quality or superiority of a product or service in relation to its intended purpose, as well as an intangible overall brand feeling. Other research subjects, such as customer value (Zeithaml, 1988; Zia et al., 2021), service quality (Liu, 2020; Parasuraman et al., 1988), and customer satisfaction (Guo et al., 2020; Parasuraman et al., 1988), are aligned with the term (Oliver, 1997; Tasci, 2020). Thus, the concept encapsulates the customer's cognitive and emotional feelings toward a certain product or service. In Keller's model, brand reaction represents opinions and evaluations of a brand based on the meaning associations associated with the brand. These evaluations take into account factors such as overall quality, credibility, consideration, and excellence. When it comes to brands, brand sentiments are the emotional reactions that buyers have to the brand. Warmth, enjoyment, excitement, security, social approval, and self-respect are only a few of the emotions Keller (2003, 2020) distinguishes between.

### **Brand Resonance / Customer Loyalty**

Brand loyalty, according to Aaker (1991, 1996), is defined as "a measure of a customer's attachment to a brand" (Aaker, 1991, p. 39). Keller (2003, 2020) investigated brand loyalty via the lens of the concept of 'brand resonance,' which refers to the nature of the customer-brand relationship and the extent to which customers feel 'in sync' with the brand's message. Customers that have true brand resonance, according to him, are loyal, actively seek out opportunities to interact with the brand, and are willing to share their experiences with others.

The fourth and final phase is to produce favourable brand responses, which should result in a strong, actively loyal relationship between customers and the brand during the following year (Keller, 2003).

It is crucial to demonstrate behavioural loyalty, attitude attachment, community spirit, and active involvement in order to be successful (Keller, 2001, 2020). The apex of the pyramid represents resonance, which is concerned with the customer-brand relationship. Behavioural loyalty, emotional attachment, community, and active participation are the four components that make up active engagement (Keller, 2001, 2020). This 'branding ladder' follows a logical sequence, and meaning cannot be established without identification of the many elements, as without the appropriate responses, it is impossible to determine the correct interpretation (Keller, 2001, 2020). It is at this stage in the pyramid that a relationship between the customer and the brand is established.

When it comes to marketing, brand equity can be defined as "the differential effect that brand knowledge has on consumer response to marketing" (Keller 2003a, p. 60). There are two aspects to this model: brand awareness and brand image. Keller (1993, 2020) claimed that building brand equity is the result of increasing brand awareness and establishing a positive brand image. According to Keller's customer-based brand equity model (1993, 2020), in order to generate equity, customers must be aware of the brand (Tasci, 2020). It is also critical to establish a positive and distinctive brand image. Direct and indirect experiences with a brand can both contribute to and detract from its image (Prasad and Dev, 2000, Tasci, 2020). In light of these two conditions, it follows that brand equity can only be established once a company has achieved brand recognition and brand image in the minds of its target audience. Brand loyalty, according to Keller (1993, 2020), is motivated by a sense of fulfilment.

Keller (1993) stated that determining customer-based brand equity can be accomplished in one of two ways: direct or indirect. The indirect strategy seeks out potential sources of equity, whereas the direct strategy examines customer reactions to various marketing elements and elements of advertising. Brand equity that is strong and favourable among customers has an impact on an organization's financial performance (Kim and Kim, 2004; Tasci, 2020). However, brand equity is a complex phenomenon with many dimensions. Keller (2002) described it as the state of being aware and making associations. Keller's (1993, 2003, 2020) CBBE model has been widely accepted by scholars and many researchers (Ahmad et al., 2021; Aurand et al., 2005; Davis et al., 2009; McGriff, 2012; Kodrat and Melinda, 2021; Kuhn et al., 2008; Lehmann et al., 2008; Leuthesser et al., 1995; Stukalina and Pavlyuk, 2021; Rojas et al., 2022; Tasci, 2020; Zaichkowsky et al., 2010) have explored, investigated, measured, and used this concept extensively in their work. Keller's model has a tendency to overlook important factors, such as profitability, market share, and reputation (Kuhn et al., 2008). In an industrial setting, quality, dependability, performance, and service are all crucial, but Keller (2003) did not consider them at all (Kuhn et al., 2008; Bendixen et al., 2004; Michell et al., 2001; Thompson et al., 1998).

Furthermore, in a business-to-business environment, the CBBE model also ignores other factors that can have an impact on brand equity (Kuhn et al., 2008).

Even though Aaker (1991) and Keller (1993) are two of the most well-known and frequently mentioned authors when it comes to customer-based brand equity, neither author devised a scale for quantifying it. Indeed, while multiple authors have elaborated on the definition and content of brand equity, only a few studies have empirically examined the various components that have been hypothesized as forming part of brand equity. Toward this goal, Yoo et al. (2000) sought to empirically assess and operationalize one of Aaker's (1991) well-known conceptual brand equity models, which they called the Aaker brand equity model. Their multidimensional brand equity scale was based on Aaker's (1991) four theoretical aspects, which they developed further.

According to Aaker (1991), brand equity comprises factors such as customer loyalty, brand recognition, perceived quality, brand connotations, and other proprietary assets. Aaker's five categories, including brand loyalty, brand awareness, perceived quality, and brand connections, were used by Yoo and Donthu (2001), with the exception of the proprietary assets dimension, which was used by Aaker (1991). Yoo and Donthu (2001) created a multidimensional scale to quantify brand equity across goods and marketplaces using perceptual aspects from Keller (1993, 2020) and Aaker (1996). Their brand equity scale included brand loyalty, perceived quality, and brand awareness/associations. Yoo and Donthu's (2001) metrics and scales were adapted to capture transaction-specific brand equity (the outcome of the conceptual framework of this study).

Thus, Yoo and Donthu (2001) developed and verified a multidimensional consumer-oriented brand equity model. They aimed to redefine brand equity. Unlike earlier studies that focused on the behavioural components of brand loyalty, their research defined brand loyalty as the inclination to be loyal to a focal brand. In addition, they divided Aaker's (1991, 1996) four dimensions into three: brand awareness/associations, perceived quality, and brand loyalty. They claimed that mapping brand equity assets can reveal whether certain features are more essential to consumers than others, or whether a brand is lacking in one or more dimensions (Yoo and Donthu, 2001). Thus, to retain strong brand equity and be the consumer's preferred choice, a company must keep in sync with how its customers view it (Yoo and Donthu, 2001).

## **2.9 SUMMARY**

Growing interest in electronic commerce has resulted in significant advancements, particularly in the field of contactless technology. Retailers must ensure that the transaction experience for their customers are quick, convenient, and enjoyable. Therefore, this study explores the concept of transaction experience in the light of contactless technology. Especially during the Covid 19 pandemic, the components of transaction experience have become more important than ever, so retailers have tried to analyse each component affecting a transaction experience and make it as safe as possible for their customers. Thus, this study will provide detailed insights on transaction experience and its impact on transaction-specific brand equity.

This chapter identified, researched, defined, and measured the concept of transaction experience from a perspective that had not previously been explored. Next, the link/relationship between transaction experience and transaction-specific brand equity was identified, thus, showing the impact of transaction experience on transaction-specific brand equity. The literature review is mainly done in three parts, firstly exploring, defining and measuring transaction experience, secondly, discussing the outcomes of transaction experience and lastly exploring the transaction-specific brand equity. In doing so, the theories and concepts that established the foundation for the conceptual model in the next chapter were also discussed in this chapter. Therefore, in the following chapter, the conceptual framework and hypotheses development will be discussed based on the literature review in this chapter.

# **Chapter 3: CONCEPTUAL FRAMEWORK AND RESEARCH HYPOTHESES**

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## **3.1 INTRODUCTION**

The chapter depicts the proposed consumer-level conceptual framework and is a result of the literature review conducted in the previous chapter (Chapter 2). After the literature review, a number of hypotheses were developed, which are conceptually related to each other. These hypotheses are discussed and backed up by further literature which are investigated and tested in this chapter. Based on the previous literature, this chapter mainly present the initial conceptual framework and the related hypotheses. This chapter is divided into five sections. Section 3.1 starts with an introduction. Section 3.2 presents the research framework and develops the hypotheses. Section 3.3 outlines the outcomes of a positive transaction experience, while section 3.4 depicts the impact of transaction experience on transaction-specific brand equity. Finally, section 3.5 presents a summary of the chapter.

## **3.2 RESEARCH FRAMEWORK AND HYPOTHESES DEVELOPMENT**

Chapter 2 presented a review of the literature on transaction experience in the light of contactless technology and considered a number of transaction-specific outcomes. In the present study, the lack of theoretical sources regarding transaction experience was resolved by reviewing transaction experience in a wider context that included literature from the fields of technology, e-commerce, consumer behaviour, marketing, and brand management. In addition, the literature review pointed out some opportunities for further research. The present study focuses on the transaction experience and its effect on transaction-specific brand equity at a consumer level, which could also be termed as consumer-based transaction-specific brand equity.

Following an illustration of the outcomes of transaction experience, the prior chapter developed a conceptual model that connects transaction experience with transaction-specific brand equity. The twelve constructs considered in this study are perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, transaction experience, transaction-specific satisfaction, transaction-specific trust, transaction-specific brand performance, transaction-specific brand personality, transaction-specific associations, transaction-specific perceived value, transaction-specific reputation and transaction-specific brand equity.

This study focuses only on the customers' transaction experience (and not the entire customer experience), as this concept has been neglected by past researchers, and there is very limited literature especially in the field of marketing. Although a few authors (Chalil et al., 2020; Danaher and Mattsson, 1994; Gupta and Kim, 2007; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Hodgkinson et al., 2021; Johnston, 1999; Klaus and Maklan, 2013; Ling, et al., 2010; Nasar et al., 2021; Purnama et al., 2021; Tom Dieck et al., 2021; Wu and Wang, 2000; Zaner et al., 2012) have taken into account the concept of transaction experience in their research, their conceptualization of the construct was very different and was not from a customer experience perspective.

The aim of this study is to establish transaction experience as a construct and then define and measure the construct, as this part of customer experience is the most important, being critical for both the customers and the retailers. This study defines transaction experience as a set of transaction-specific interactions between a customer and the product/service provider (Gentile et al., 2007; Hoch, 2002; Kerin et al., 1992; Meyer and Schwager, 2007; Terblanche and Boshoff, 2002), which provokes a reaction (Gentile et al., 2007) involving cognitive, affective, emotional, social (Bolton et al., 2014; Brakus et al., 2009; Gentile et al., 2007; Meyer and Schwager, 2007; Shilpa and Rajnis, 2013), behavioural and physical (Bolton et al., 2014; Meyer and Schwager, 2007; Pine and Gilmore, 1998; Shilpa and Rajnis, 2013) responses evoked by transaction-related stimuli such as the enjoyment, ease, and speed of the transaction (Brakus et al., 2009).

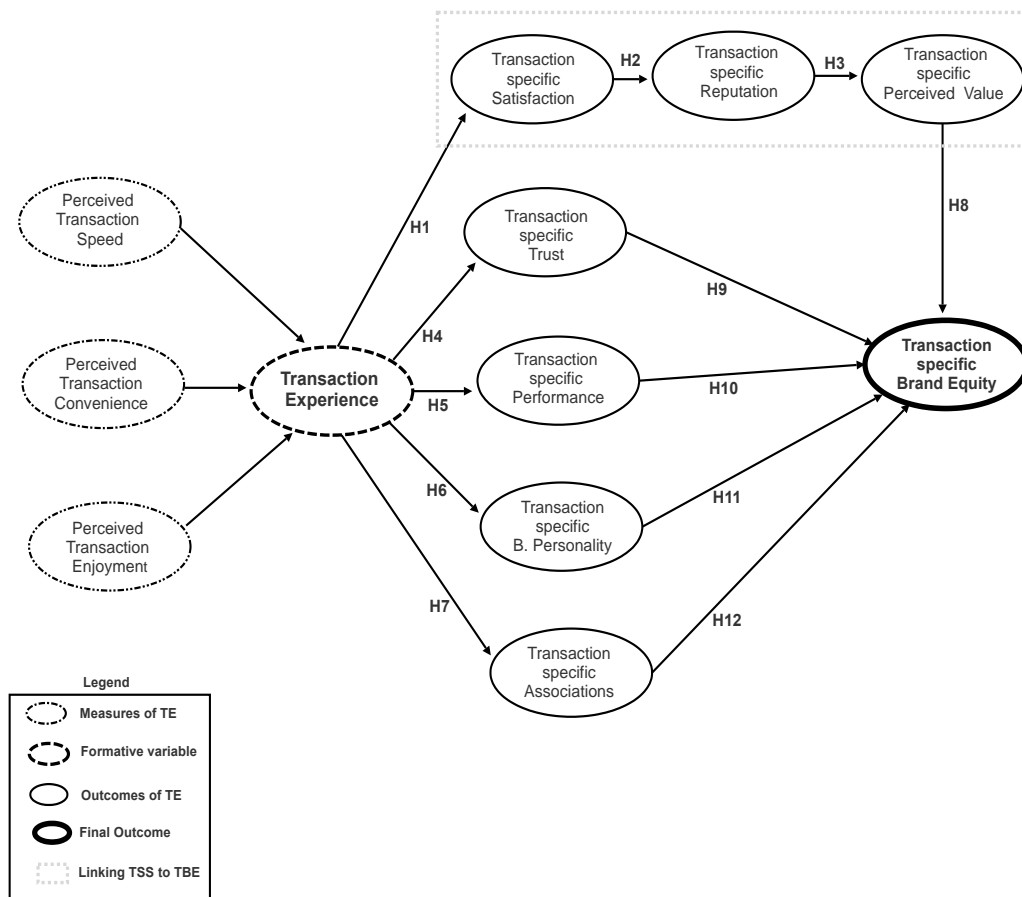
Customers tend to enjoy their shopping experience (Backstrom and Johansson, 2006; Ballantine et al., 2012; Cachero-Martínez and Vázquez-Casielles, 2017; Cox et al., 2005; Dennis, 2005; Falk and Campbell, 1997; Jones, 1999; Machleit and Eroglu, 2000), and it has been attributed as a joyful retail experience (Jin and Sternquist, 2004), but when it comes to paying, they tend to become stressed and 'unhappy'. As human beings, they do not 'enjoy' spending and giving away their wealth, as it is a scarce and limited resource. That is why it is important to make this moment (the transaction experience) as quick, convenient, and enjoyable as possible. Hence, the focal construct of the study is transaction experience, which is explored and analysed in depth in the context of brand management and consumer behaviour (marketing perspective). In this study transaction experience is measured as a formative variable, through perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment, as portrayed in the conceptual framework in Figure 3.1.

Designing a conceptual framework (Figure 3.1) is the first stage in conducting a mixed-methods study in which qualitative studies are quantified. Carson et al. (2001) felt that qualitative research is more



suiting for determining the context of a phenomenon. This study develops a consumer-level conceptual framework that hypothesizes the consequences of transaction experience as well as the antecedents of transaction-specific brand equity at the individual consumer level. The framework model has been developed in this research to examine a number of relationships, which are identified in the literature. Creating a consumer-level conceptual framework (Figure 3.1) based on attribution theory allows the following: (i) explores the concept of transaction experience and its dimensions, (ii) develops and empirically assesses a conceptual framework regarding the relationships between a positive transaction experience and its outcomes and consequences, and (iii) investigates the impact of a positive transaction experience on transaction-specific brand equity. The relationships between concepts and the related hypotheses are discussed in the following section. Based on prior studies and the insights gained from current field research, the conceptual framework and various propositions accomplish further study.

Figure 3.1: The Conceptual Framework



Source: The Researcher

### **3.2.1 Measuring Transaction Experience: Perceived Transaction Speed, Perceived Transaction Convenience and Perceived Transaction Enjoyment**

Although few researchers (Bhattacharjee, 2001; Bitner and Hubbert, 1994; Burton et al., 2020; Chalil et al., 2020; Danaher and Mattsson, 1994; Johnston 1995; Gupta and Kim, 2007; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Ling et al., 2010; Purnama et al., 2021; Tom Dieck et al., 2021; Wu and Wang, 2005; Zaner et al., 2012) have studied the concept of transaction experience, valid and relevant measures of transaction experience for this study could not be found in the existing literature. Furthermore, using the measures for the focal construct-transaction experience was more challenging because this concept had not been studied from the marketing and especially brand management perspective in the past. Therefore, as evident from the conceptual framework (Figure 3.1), transaction experience (the focal construct) has been studied as a second order variable and is designed to be a formative variable. It is thus measured through lower order variables - perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment - which make up the entire journey of a customer's transaction experience.

Gupta and Kim (2007) studied a customer repurchase decision-making model to examine the effect of transaction experience on customers' decision calculus in on-line repurchases. Their conceptual model shows the effects of perceived convenience on the transaction experience (Gupta and Kim, 2007). Non-monetary considerations, such as time and effort, are taken into account while making purchasing decisions (Chen, 2008; Chen and Li, 2017; Davis, 1986; Down, 1961; Jebarajakirthy et al., 2021; Venkatesh, 2000; Wei et al., 2020; Zeithaml, 1988). For example, customers' intrinsic (hedonic) motivation, which is a non-monetary component, influences their decisions when making purchases (Backstrom and Johansson, 2006; Ballantine et al., 2012; Cox et al., 2005; Deci, 1975; Falk and Campbell, 1997; Jones, 1999; Jebarajakirthy et al., 2021; Machleit and Eroglu, 2000). Customers' transaction experiences are thus shaped by factors such as speed, convenience (in terms of time and effort), and enjoyment (intrinsic incentive). As a result, these factors are considered to be the measures of transaction experience in this study.

Speed is one of the most important factors while at the checkout (Wei et al., 2021). Hence, the adaptation of technology to speed up the transaction process is a continuous process for retail stores. During the Covid-19 situation, this has become even more evident (Timotius and Octavius, 2021). It is beneficial not only for customers but also for the retailers, as they can reduce queues and attend more customers, resulting in more profits (Jalil et al., 2021; James et al., 2021; Robertson et al., 2016).

A speedy transaction is probably the most important factor during a consumer's transaction experience (Hyken, 2017; Jie and Kamsin, 2021; Litfin and Wolfram, 2010; Orel and Kara, 2014).

Significant investigation has been conducted into the time-saving component of convenience, specifically how consumers react to waiting time (Briedis et al., 2021; Rajvanshi and Pramod, 2021; Gehrt and Yale, 1993). Research studies indicate a relationship between perceived transaction speed (time) and customer (transaction) experience (Akkucuk and Teuman, 2016; Chen, 2008, Jonker, 2007; Chen and Li, 2017; Chebat and Filiatrault, 1993; Huq and Farin, 2017; Katz et al., 1991; Lee, 2009; Li et al., 2009; Liang and Huang, 1998; Nguyen et al., 2018; Rinta-Kahila et al., 2021; Theopilus et al., 2021; Zarmou et al., 2012).

Convenience plays a significant role for customers during transaction experience (Torkzadeh et al., 2002). Customer evaluations of shopping time and effort, according to Berry et al. (2002), are referred to as convenience. Convenience minimizes the amount of mental and physical energy (and, consequently, the amount of time and effort) expended in acquiring an item, thereby increasing transaction utility (Down, 1961). Klaus and Maklan (2013) in their study have documented how convenience and transaction-related factors affect the overall experience of a customer. Many authors (Akkucuk and Teuman, 2016; Chen, 2008; Chen and Li, 2017; Gefen et al., 2003; Jalil et al., 2021; Mahapatra, 2017; Ntuli, 2021; Teo et al., 2015; Torkzadeh et al., 2002) have used TAM to justify the effect of perceived time and perceived convenience on actual usage of a technology (transaction experience).

Frow and Payne (2007) proposed that rationale, cognitive processing, and emotional effective processing form part of the experience formation, and therefore, another very important aspect of transaction experience is the perceived enjoyment (Bagozzi, 1992; Cohen and Areni, 1991; Knidiri, 2021; Lazarus, 1991; Moghavvemi et al., 2018; Mehrabian and Russell, 1974; Oliver, 1997; Ugwuanyi et al., 2021; Zhou and Feng, 2017). As mentioned in chapter 2, in light of the available retail customer experience literature, authors (Carbone and Haeckel, 1994; Gentile et al., 2007; Hoyer et al., 2021; Schmitt, 1999; Verhoef et al., 2009) stated that retail customer experience can be conceptualized as the sum total of cognitive, emotional, sensorial, and behavioural responses produced during the entire buying process, involving an integrated series of interaction with people, objects, processes and environment in retailing”.

Hence, consumption experiences are multidimensional and include hedonic dimensions, such as 'feelings, fantasies, and fun' as stated by Holbrook and Hirschman (1982). Researchers have identified the enjoyment aspect of customer experience in various types of technology and innovation, and they have shown the impact of enjoyment on self-service technology (Langeard et al. 1981), website/online context (Chen et al, 2004; Childers et al., 2001; De Wulf et al., 2006), and virtual community (Gupta and Kim, 2007; Mehrabian and Russell, 1964). According to Hsu and Lu (2004), the extended TAM, flow experience (Chang, 2012), and commitment (Zhou et al., 2012) have all been used to investigate user acceptance of online games (Hsu and Lu, 2004; Lee and Tsai, 2010). Perceived pleasure appears to be a widely utilized concept to evaluate hedonic experiences, according to the literature (Than et al., 2015).

In this study, perceived transaction speed is defined as the extent to which the prospective user of NFC has perceived that use of the NFC (Chen, 2008; Teo et al., 2015) has allowed them to save time (Collier and Sherrell, 2010; Dabholkar, 1996) and has improved the speed of the transaction (Chen, 2008; Davis et al. 1992; Nguyen et al., 2018; Teo et al., 2015) during the transaction experience, while perceived transaction convenience is defined as the extent to which the prospective user of NFC perceives to undertake the transaction with speed and ease (Berry et al., 2002; Chen et al., 2018; Collier and Sherrell, 2010; Duarte et al., 2018 Gupta and Kim, 2007; Seiders et al., 2000) and increase convenience (Chen, 2008; Chen et al., 2018; Teo et al., 2015) during the transaction experience and perceived transaction enjoyment is defined as the extent to which the prospective user of NFC perceives the transaction to be enjoyable in its own right, apart from any performance consequences that may be anticipated (Bedi et al., 2017; Davis et al., 1992; Gumussoy, 2016; Heijden, 2004; Lee and Tsai, 2010; Park et al., 2012; Venkatesh, 2000; Zhou and Feng, 2017) during their transaction experience.

Perceived transaction speed and perceived transaction convenience are the most relevant elements of a transaction, as observers have long noted consumers' interest in conserving time and effort' (Anderson, 1972; Gross and Sheth, 1989; Kelley, 1958; Nickols and Fox, 1983) during a transaction. Moreover, consumers are willing to engage in self-service if they perceive it as more convenient, efficient, or enjoyable (Jalil et al., 2021; The New York Times, 1989). As stated earlier, Frow and Payne (2007) proposed that rationale, cognitive processing, and emotional effective processing form part of the experience formation. Thus, these three measures of transaction experience are adopted for this study. The next section identifies the various outcomes from transaction experience.

### **3.3 OUTCOMES OF TRANSACTION EXPERIENCE**

The focal construct for this study is transaction experience. To answer the first research question - What is the aftermath of a positive transaction experience? - hypotheses (H1, H2, H3, H4, H5, H6 and H7) are developed which are the outcomes of transaction experience. Hence, they are termed as 'transaction-specific' and are defined and measured accordingly. The first set of hypotheses portray the outcomes of transaction experience which are as follows: transaction-specific satisfaction (H1), transaction-specific reputation (H2), transaction-specific perceived value (H3), transaction-specific trust (H4), transaction-specific performance (H5), transaction-specific brand personality (H6), and transaction-specific associations (H7). Research shows that the product's physical presence strongly influences the customers' experiences and how they perceive a brand (Dwyer et al., 1987; Han and Sung, 2008; Kandampully et al., 2018).

Customers' overall satisfaction with a service, according to Bitner and Hubbert (1997), is based on all encounters and experiences with the brand. Customers' evaluations of each transaction, according to Johnston (1995), are influenced by elements such as involvement and importance, which combine to determine their level of satisfaction or dissatisfaction with the service (Kandampully et al., 2018). As a result, following each transaction, the customer is either pleased, dissatisfied, or delighted (Johnston 1995; Kandampully et al., 2018). As a result, every transaction has an impact on the ultimate customer satisfaction and the overall profitability (brand equity) of the retailer. Previous research has underlined the necessity of customers rating the quality of each transaction in order to assist managers in improving service design, including the checkout, i.e., the transaction experience (Bitner and Hubbert, 1994; Danaher and Mattsson, 1994; Johnston, 1995; Kandampully et al., 2018). Service Transaction Analysis (STA) was developed in reaction to this (Johnston 1999); it is a basic yet extremely powerful analytical technique that managers may use to improve transaction speed and ease, and hence customer service.

Repeat customers are five times more profitable than new customers; thus, providing a good transaction experience is crucial to gaining long-term customer loyalty, i.e., brand equity (Gupta and Kim, 2007). In the previous section, the measures of transaction experience were set, and in the next section, the various outcomes of transaction experience are discussed. For the purpose of hypotheses development, the notion of customer experience and different types of experiences as discussed in Chapter 2, e.g., brand experience, product experience, e-retailing experience, will be considered, as limited research has been undertaken on transaction experience. Each of the transaction-specific

outcomes and the relevant hypotheses are discussed in turn. The first transaction-specific outcome is transaction-specific satisfaction, which is discussed in the following section.

### **3.3.1 Transaction Experience and Transaction-specific Satisfaction**

In this study, transaction-specific satisfaction is defined as the customer's post-transaction evaluation and assessment of the prior transaction experience (Anderson et al., 2004; Cadotte et al., 1987; Fornell, 1992; Kim, 2005; Labarbera and Mazursky, 1983; Oliver, 1997; Shankar et al., 2003) to form the norms of transaction-specific retail performance (Cadotte et al., 1987; Labarbera and Mazursky, 1983; Lee et al., 2018; Lien et al., 2017; Sulphrey and George, 2017; Zaid and Patwayati, 2021). According to Meyer and Schwager (2007), customer satisfaction can be defined as the culmination of a series of customer experiences.

Increasing customer satisfaction, according to several researchers (Burns and Neisner, 2006; Grewal et al., 2009; Lu and Seock, 2008; Martenson, 2007; Meyer and Schwager, 2007; Sivadas and Prewitt, 2000), is a crucial outcome for retail managers. Woodruff et al. (1983) asserted that a consumer's experience with a specific group of brands is a critical component in determining their level of pleasure/satisfaction. Consumer satisfaction and brand equity from loyalty should be influenced by brand memories from customer experience (Bae et al., 2021; Oliver, 1997; Reicheld, 1996; Ruefenacht, 2018; Verma and Sharma, 2018).

Kim (2005) developed the concept of e-customer satisfaction, linking satisfaction to customer experience in a distinctive manner, and defined e-satisfaction as the customer's psychological evaluation of accumulated purchase process experience and product usage experience. Authors who studied customer experience in the online context (Janda and Ybarra, 2005; Susan et al., 2011; Wibowo et al., 2021) found that experience has a significant impact on satisfaction. This finding is also supported by other authors who studied the same in the offline context (Bae et al., 2021; Bolton and Drew, 1991; Boulding et al., 1993; Hill and Brierley, 2017; Oliver, 1980, 1993; Ruefenacht, 2018; Verma and Sharma, 2018), who agreed that satisfaction is a post-decision customer experience.

Researchers have acknowledged the importance of a positive and successful customer experience to gain the ultimate customer satisfaction in retail facility (Bustamante and Rubio, 2017; Happ et al., 2020; Poushneh Vasquez-Parraga, 2017; Powers et al., 2017; Roy et al., 2018; Foroudi et al., 2018; Zaid and Patwayati, 2021). Thus, it is evident that a positive customer experience leads to customer satisfaction. Therefore, from a transaction-specific context, transaction-specific satisfaction arises

from when a customer uses the contactless method of payment during their transaction at a retail facility, as the transaction experience is likely to be much quicker, more convenient, and more enjoyable, and the queuing time is also minimized. This results in post transaction satisfaction, and this satisfaction is obtained during/after the transaction only. That is the reason it is termed in this study as transaction-specific satisfaction. From the above discussion, the relationship between transaction experience and transaction-specific satisfaction is evident. Therefore, it is hypothesised as follows:

*Hypothesis 1: In a retail facility, the speedier, more convenient, and more enjoyable a transaction experience is, the higher the transaction-specific satisfaction is for the retailer.*

### 3.3.1.1 Transaction-specific Satisfaction and Transaction-specific Reputation

In this study, transaction-specific reputation is defined as the customer's overall evaluation of a firm (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017; Weiss et al., 1999), based on his or her dis/satisfactory reactions to the firm's communication activities followed by the transaction experience (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017). This construct is the second transaction-specific outcome (although not a direct outcome of transaction experience, it is an outcome via transaction-specific satisfaction).

It is common in retailing for a positive corporate reputation to be associated with consumer happiness or satisfaction (Alwi et al., 2017; Davies et al., 2002; Guo et al., 2020; Walsh et al., 2017). For example, in the UK, when most of the Tesco and Asda stores had the facility of contactless payment but a similar setting retailer, Sainsbury's, did not, then customers, especially those who preferred to use contactless payment, would be likely to be less satisfied shopping at Sainsbury's and would be likely to possess a negative corporate reputation for Sainsbury's based on this. Thus, Walsh et al. (2006) found a link between positive perceived reputation and customer satisfaction in utility services.

In the context of banking, satisfaction has a considerable positive association with the bank's reputation when measured as service quality and total product quality (Alwi et al., 2017; Rusmahafi and Wulandari, 2020; Wang et al., 2003). Nguyen and Leblanc (2001) contended that reputation is the most dependable predictor of a service firm's capacity to satisfy a customer's expectations. Thus, it can be concluded that a satisfied customer will have a positive perception towards the reputation of a retail store (Balmer and Chen, 2017; Qalati et al., 2020). Many authors (Khaled et al., 2020; Qazi et al., 2021; Rusmahafi and Wulandari, 2020; Susanti and Samudro, 2021; Wang et al., 2003) have proved in their work that satisfaction with a brand is directly related to the reputation of the brand (in this case,

retail). Hence, taking into account the definition of transaction-specific reputation, it could be argued that a satisfied customer will have a positive evaluation of the retailer, resulting in a positive perceived reputation. Hence, based on the above discussion, it is proposed:

*Hypothesis 2: In a retail facility, the higher the customer's transaction-specific satisfaction, the higher the transaction-specific reputation is for the retailer.*

### 3.3.1.2 Transaction-specific Reputation and Transaction-specific Perceived Value

In this study, transaction-specific perceived value is defined as the customer's overall assessment (Zeithaml, 1988) of customers' perceived benefits and customers' perceived sacrifices of a transaction with the product/service provider (Day, 2000; Gupta and Kim, 2007; McDougall and Levesque, 2000; Oliver and De Sarbo, 1988; Zeithaml, 1988) jointly formed through consumers' transaction experience (Gupta and Kim, 2007; Prebensen and Xie, 2017; Shechter, 1984). This is the third transaction-specific outcome that is not directly from transaction experience but via transaction-specific reputation.

Brand reputation is a broader construct than brand image, and hence it is more likely to have a strong influence on the perceptions of customer-perceived value (Alwi et al., 2017; Burlea and Balan, 2021; Sabate and Puente, 2003). Aspects of reputation, such as 'being world class', 'technical leadership' and 'global presence', have the potential to influence perceptions of customer value (Mudambi et al., 1997). For example, Barclays was the first bank in the UK to launch contactless debit and credit cards (BBC News, 2020; TameBay, 2016), so they have the reputation of being an innovative leader when it comes to contactless payments. Similarly, EAT restaurant in 2008 after becoming the first ever retailer in the UK to accept/adapt contactless payments; acquired the reputation of being the 'hassle-free' organization while offering speedy and convenient transactions for customers (Finextra, 2016). Empirical research has demonstrated the positive influence of company reputation on customers' perception of value (Shapiro, 1983; Yoon et al., 1993).

The term 'brand image' refers to 'perceptions' about a brand that are represented by customer memory (Keller 2003). Brand quality judgments and attitudes are among the factors that influence these relationships. It is undeniable that the associations customers have with a retailer's reputation have an impact on their assessment of the value of their purchases (Brown and Dacin, 1997). For service providers, such as retail stores, trust is an antecedent of perceived value, and reputation is a mediator in this relationship between the two (Milan and Toni 2012; Milan et al., 2013). Brand reputation is a



measure of what consumers value about a product or service (Chaudhuri, 2002). In a recent study, Arslanagic and Zabkar (2017) discovered a link between perceived value and the feelings generated by business reputation (Leppäniemi et al., 2017; Lindgreen and Wynstra, 2005; Tai et al., 2011). Therefore, it can be concluded from past studies (Burlea and Balan, 2021; Harun et al., 2021; Milan and Toni 2012; Leppäniemi et al., 2017), that transaction-specific reputation has a positive relationship with transaction-specific perceived value, from a transaction-specific perspective. Customers are more likely to perceive good value when shopping at a retail establishment with a good reputation. Therefore, based on the above discussion, it is proposed:

*Hypothesis 3: In a retail facility, the higher the transaction-specific reputation is, the higher the transaction-specific perceived value of the customers is for the retailer.*

### **3.3.2 Transaction Experience and Transaction-specific Trust**

In this study, transaction-specific trust is defined as the confidence (Ballester et al., 2003; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994), trustworthiness (Ballester and Alemán, 2005), and reliability (Ballester et al., 2003; Chaudhuri and Holbrook, 2001; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994) that one will find what one desires from a transaction, rather than what one fears (Deutsch, 1973). This is the fourth transaction-specific outcome from transaction experience.

As an experience attribute, trust is influenced by the consumer's evaluation of any direct (e.g., trial, usage) and indirect contact (e.g., advertising, word of mouth) with the brand (Garbarino and Johnson, 1999). Moreover, when it comes to transactions, trust is considered more important than anything else (Moody et al., 2017; Szumski, 2020). There is a lot of trust involved when a transaction is made with a contactless technology (Dutot, 2015; Patil et al., 2018; Szumski, 2020; Wang, 2008; Hao, 2020). Trust can be defined in a variety of ways. Some studies place a greater emphasis on characteristics such as compassion, integrity, ability, competence, and empathy (Flavian et al., 2006; Gefen, 2002; Gefen et al., 2003; Hao, 2020; McKnight et al., 2002).

Nor et al. (2011) argued that trust should be treated as a behavioural component, meaning that it represents an individual's decision to act in a particular way and the confidence that one party has in the other (Geyskens et al., 1996; Siguaw et al., 1998). A successful and trustworthy transaction experience, in this perspective, is defined as the 'willingness to rely' on the partner (Flavian et al.,

2006; Hao, 2020). This trust can only be established after a successful and trustworthy transaction experience (Szumski, 2020).

When the contactless card was introduced, customers preferred not to use it, as they were afraid of fraud and other security issues like paying twice for the same purchase or the incorrect amount of money being taken away from the account. Only after customers started using their contactless card, after extensive pressure and awareness created by the financial institutions issuing these cards, did they begin gradually to gain trust in contactless payment. This is supported by the statistics issued by the UK Card Association, showing more than £2.5 billion was spent with the contactless method of payment for only the first half of 2015 itself (Money Supermarket, 2015).

Brand trust evolves from past experience and prior interaction (Alwi et al., 2016; Cai et al., 2017; Garbarino and Johnson, 1999; Hallikainen and Laukkanen, 2018; Wang et al., 2017), and the overall satisfaction, as a general evaluation of the consumption experience with the brand, generates brand trust (Ganesan, 1994; Patil et al., 2018; Selnes, 1998). According to Hao (2020), Lai et al. (2011), and Patil et al. (2011), the use of a technology is one of the predictors of overall trust in the technology and the business. The consumer experience is considered to be the most relevant and significant source of brand trust because it generates more self-relevant associations, thoughts, and inferences than any other source of brand trust (Ameen et al., 2021; Bawack et al., 2021; Dwyer et al., 1987; Krishnan, 1996). According to Hallikainen and Laukkanen (2018), previous experiences help to create trust. As a result, when customers visit a retail store, they will have developed trust in the store as a result of their previous experience. Consequently, based on the above evidence, the following hypothesis is proposed:

*Hypothesis 4: In a retail facility, the speedier, more convenient and enjoyable a transaction experience, the higher the transaction-specific trust for the retailer is.*

### **3.3.3 Transaction Experience and Transaction-specific Performance**

In this study, transaction-specific performance is defined as the consumer's judgment about a retailer's fault- and hassle-free transaction experience and the overall perceived effectiveness of the transaction (Hult et al., 2008; Lassar et al., 1995; Punjaisri and Wilson, 2017; Venkatraman and Ramanujam, 1986). This research takes into account the user-friendly contactless transaction system installed by the retail industry for a better transaction-specific retail performance. This is the fifth transaction-specific outcome.

Transaction-specific performance in this study looks into how a ‘transaction tool’ such as contactless debit/credit card, contactless Apple Pay, contactless m-pay, or any other forms of contactless paying instrument, perform, i.e., the performance of the retail stores in the context of the transaction experience of customers. In addition, it takes into account the performance of the contactless payment reader, for example, the card machine the retailers have installed at the checkout for accepting payments. To sum up, it measures the transaction-related performance of the retailers, that is, how effective and convenient the transaction tool is for the customers to perform the overall transaction in a retail facility. One advantage of transaction-specific measures is that they capture the complex psychological reactions that customers have to a product’s or service provider’s performance on a given occasion or over a given time period (Oliver, 1997; Shi et al., 2021). Thus, to acquire the perception of how well the ‘transaction tool’ (both the customer’s and the retail’s payment instruments) performs, a customer must undergo a transaction experience with a particular retail outlet (Duan et al., 2021; Smith et al., 2017).

The use of contactless technology in a retail environment, as well as how well it worked, is dependent on the expectations and prior knowledge of the customer as well as on the information provided by the stimuli (Eysenck and Keane, 1990; Smith et al., 2017; Zhang et al., 2017). Customers’ increasing level of experience with a service provider results in an improvement in their evaluation of the service performance (Alwi et al., 2016; Briedis et al., 2020; Hui and Tse, 1996; Ramanathan et al., 2017; Suhartanto et al., 2018). Kim, 2021; Merrilees, 2016; Smith et al., 2017; Woodruff et al., 1983; Zhang et al., 2017). Several studies have been conducted to examine the impact of innovation on a company’s performance (Agarwal et al., 2003; Geldes et al., 2017; Gill and Kim, 2021; Nguyen et al., 2021; Noble et al., 2002). For example, contactless payment is designed to be more convenient and faster than traditional payment methods.

It is evident that when consumers have had similar experiences with common considerations within the same product class, they build performance norms for that product class (Algharabat et al., 2017; Day 1977; Nguyen et al., 2021; LaTour and Peat 1979, 1980). Hence, they create norms of brand performance based on their previous experiences (Alwi et al., 2016; Briedis et al., 2021; Cadotte et al., 1987; Geldes et al., 2017; Merrilees, 2016; Labarbera and Mazursky, 1983; Lemon and Verhoef, 2016; Zhang et al., 2017). As a result, the following hypothesis is proposed:

*Hypothesis 5: In a retail facility, the speedier, more convenient, and more enjoyable a transaction experience is, the higher the transaction-specific performance is for the retailer.*

### 3.3.4 Transaction Experience and Transaction-specific Brand Personality

In this study, transaction-specific brand personality is defined as the set of human characteristics associated with a transaction/payment method (Aaker, 1997; Grohmann, 2009) mostly in a symbolic way to differentiate the organization providing the transaction experience from its competitors (Aaker, 1996; Conejo et al., 2017; George and Anandkumar, 2018; Liao et al., 2017; Oklevik et al., 2021) so as to deliver a vivid and more personal meaning to the consumers (Biel, 1993; Keller, 1993; Keller and Richey, 2017; Siguaw et al., 1999). Transaction-specific brand personality is the sixth transaction-specific outcome.

Individuals who have had direct or indirect contact with a brand are believed to have developed human personality traits associated with the brand (Aaker, 1997; Ferrandi et al., 2015; Keller and Richey, 2017; Masiello et al., 2020; Lee and Kim, 2020; Oklevik et al., 2021; Plummer, 2000; Stancu et al., 2021), whereas the direct source brand personality traits originate from any individual associated with the brand and transfer to the overall brand personality perception (Aaker, 1997; Keller and Richey, 2017; Plummer, 2000). Due to this engagement, customers develop an emotional attachment to the 'brand-persona' (Herskovitz and Crystal, 2010; Spangenberg, 2021) as well as to the brand itself (Ranfagni et al., 2016).

Brand personality is a component of a retailer's reputation and image (Blackston, 1993, 2018; McCracken, 1989; Ogilvy, 1985). Any brand touch, whether direct or indirect, that occurs during the consumer experience process contributes to the development of the brand personality (Choi et al., 2017; Ding and Tseng, 2015; Grewal et al., 2017; Kim et al., 2015; Oklevik et al., 2021; Plummer, 1985; Stancu et al., 2021; Shank and Langmeyer, 1994). That is, after a transaction experience, customers would usually have the knowledge and perception to associate human personality traits with the transaction tool or with the entire transaction process, and reason and humanise the characteristics with contactless payment as 'smart', 'exciting', 'upper class', 'simple' or 'sophisticated' (Aaker, 1991; Ferrandi et al., 2017). Therefore, based on the above discussion, which shows the effect of transaction experience on transaction-specific brand personality, it is proposed:

*Hypothesis 6: In a retail facility, the speedier, more convenient, and more enjoyable a transaction experience is, the higher the transaction-specific brand personality for the retailer is.*

### **3.3.5 Transaction Experience and Transaction-specific Associations**

In this study, transaction-specific associations are defined as the informational nodes linked to the brand node in the customer's memory (Aaker, 1991; Emari et al., 2012; Füller and Bilgram, 2017; Keller, 1998; Zha et al., 2020) that contains the meaning of the brand/payment instrument (Keller, 1998), including the payment procedure of the company, and is related to the information (Emari et al., 2012; Osselaer and Janiszewski, 2001) regarding what is in the customer's mind about their entire transaction experience (Emari et al., 2012; Keller, 1998). This is considered the final transaction-specific outcome of transaction experience.

Direct experience is one of the most effective ways to develop the strong brand features that form associations in the minds of customers, according to marketing experts (Keller, 2003). Customers' long-term memory (Braun, 1999; Keller, 1993) assists consumers in the processing, organization, and retrieval of the knowledge stored in their minds, which, in turn, benefits them in making future purchase decisions (Aaker, 1991). Direct product trial experience results in greater retained associations, which allows for the development of brand uniqueness through consumer and service provider interaction (Kootenaie and Kootenaie, 2021; Long and Swaminathan, 2006). Keller (1993) defined brand associations as the elements of a product or a transaction that are related to the product or the purchase, such as pricing, product appearance, usage, and user imagery (non-product related). Brand associations can also be linked to perceived benefits and product experiences, as well as to consumer feelings, ideas, and attitudes (Broniarczyk and Alba, 1994; Keller, 2003, Zha et al., 2020).

According to Anderson and Bower (1973), the TAM theory describes declarative knowledge as a network of idea nodes connected by links that become stronger when two events occur at the same time. The stronger the relationship between a brand name and a benefit, the more likely it is that the benefit will be experienced, whether indirectly or directly. Those who have a good attitude toward a product or service will be more likely to have stronger brand associations, based on their recent experience or consumption, as well as exposure to further brand associations, according to Kirmani et al. (1999).

Aaker (1991) asserted that great customer experiences result in positive brand relationships between customers and brands. Therefore, marketers strive to create good brand associations in the minds of their customers by capitalizing on their previous brand experience and new product introductions (Keller, 2003). A large amount of research (Aaker, 1991; Broniarczyk and Alba, 1994; Emari et al., 2012; Füller and Bilgram, 2017; Keller, 2003; Motta, 2021, Robertson et al., 2021; Zha et al., 2020)

has demonstrated a clear relationship between brand associations and personal experience. Therefore, from the transaction-specific viewpoint, the same logic applies in terms of the relationship between transaction experience and transaction-specific brand associations. As a result, based on the evidence, the following hypothesis is suggested:

*Hypothesis 7: In a retail facility, the speedier, more convenient, and more enjoyable a transaction experience is, the higher the number of transaction-specific associations are for the retailer.*

### **3.4 THE IMPACT OF TRANSACTION EXPERIENCE ON TRANSACTION-SPECIFIC BRAND EQUITY**

To answer the second research question, i.e., ‘What is the impact of transaction experience on transaction-specific brand equity?’, the next set of hypotheses are formulated (H8, H9, H10, H11, and H12). These reflect the antecedents to transaction-specific brand equity. Hence, the antecedents to transaction-specific brand equity that portray the impact of transaction experience on transaction-specific brand equity are as follows: transaction-specific perceived value (H8), transaction-specific trust (H9), transaction-specific performance (H10), transaction-specific brand personality (H11), and transaction-specific associations (H12).

In this study, transaction-specific brand equity is defined as the differential effect (Barwise 1993; Keller, 1993; Keller and Brexendorf, 2017) that retail brand knowledge (from the transaction experience) has on consumer response to the marketing of that retail brand (Keller, 1993; Keller and Brexendorf, 2017) and the added value to that retail brand perceived by a consumer (Aaker, 1991; Broniarczyk and Alba 1994; Keegan et al., 1995; Park and Srinivasan 1994). It is termed ‘transaction-specific brand equity’ as all sources/antecedents are transaction-specific due to them occurring from a customer’s transaction experience. Thus, the value added is transaction-specific. Moreover, this type of brand equity takes into account only the brand equity that is obtained/added from the customer’s transaction experience (and not the overall customer experience). Hence, transaction-specific brand equity is a portion or part of the overall brand equity, and it is important to study how to increase the overall brand equity of a retail facility.

Brand equity can be quantified from three perspectives: the perspective of the customer, the perspective of the product, and the perspective of the finance (Ailawadi et al., 2003; Tasci, 2020).

Customers' awareness, attitude, affiliation, attachment, and loyalty to a brand are all indicators of their mind set toward a company or brand (Aaker, 1991; Keller, 1993, 2003). Keller distinguished between the differential effect of brand awareness on the customer response to brand marketing and the differential effect of brand awareness on the brand marketing response (1993). Specifically, Keller's (2003) customer-based approach to brand equity is adopted in this study.

Similar to how the total customer experience could affect the overall brand equity, as studied by Biedenbach and Marell (2009), this research focus on how transaction experience could affect transaction-specific brand equity. In the previous sections, the outcomes (transaction-specific) of a positive transaction experience were outlined. These outcomes of a positive transaction experience are likely to create/add value to an organization, and hence, they are proposed in this study as the antecedents of transaction-specific brand equity. In the following sections, how transaction experience could ultimately lead to transaction-specific brand equity is detailed.

#### **3.4.1 Transaction-specific Perceived Value and Transaction-specific Brand Equity**

The study considers transaction-specific perceived value to be the first antecedent to transaction-specific brand equity that helps to portray the impact of transaction experience on transaction-specific brand equity. Like the other transaction-specific constructs, due to the lack of literature in the transaction-specific context, the broader concept of brand equity is used as a base to establish the relationships of transaction-specific brand equity to other constructs.

Brand equity is the customers' intangible and subjective evaluations of a brand's perceived value (Baldauf et al., 2003; Che Nawi et al., 2020). Developing a strong and positive perceived customer value towards a brand is important, as it tends to strengthen the customer-based brand equity (Che Nawi et al., 2020; Kim and Kim, 2004; Malik, 2012; Ng et al., 2014). It is evident that perceived value is a stronger predictor of behavioural intentions such as brand equity than either satisfaction or perceived quality (Cronin et al., 2000). This belief has led some researchers (Anselmsson et al., 2017; Dam, 2020; He and Li, 2011; Liu et al., 2015; Jiang et al., 2018; Kazmi et al., 2021; Matthews et al., 2014; Ng et al., 2014; Ruan et al., 2020; Shen et al., 2021) to test perceived value as a vital antecedent of a brand's equity.

From the service marketing concept, similar to the retail industry, consumer-perceived value of the inherent characteristics of service quality can help to reinforce favourable brand associations that eventually result in strong brand equity for retailers (Bell et al., 2005, de Chernatony and Segal-Horn,

2003; Juga et al., 2018). According to Jahanzeb et. al. (2013), perceived value is positively related to brand equity. Many studies (Bell et al., 2005, de Chernatony and Segal-Horn, 2003; Dam, 2020; Juga et al., 2018; Kazmi et al., 2021; He and Li, 2011; Parasuraman and Grewal, 2000; Susanti et al., 2020) have also suggested that perceived value is a common construct to define brand equity.

According to a study by Martin and Brown (1990), brand equity can be conceived as having five dimensions, which are perceived quality, perceived value, reputation, trust, and dedication (or commitment). For many researchers (Aaker, 1996; Alvarado et al., 2020; Anselmsson et al., 2017; Farquhar, 1989; He and Li, 2011; Jahanzeb et. al., 2013; Jeon and Yoo, 2021; Keller, 1993; Liu et al., 2015; Rodríguez et al., 2020), perceived value is a ‘core/primary’ facet and is considered a cornerstone of most CBBE frameworks. Therefore, based on the discussion above, which shows a clear impact of perceived value on customer-based brand equity, the following hypothesis is proposed:

*Hypothesis 8: In a retail facility, the higher the transaction-specific perceived value of the customers is, the higher the transaction-specific brand equity is for that retailer.*

### **3.4.2 Transaction-specific Trust and Transaction-specific Brand Equity**

The second antecedent to transaction-specific brand equity, according to this study, is transaction-specific trust, reflecting the impact of transaction experience on transaction-specific brand equity. There is enough evidence in the literature to prove the relationship of the two constructs, as discussed below.

Previous studies (Doney and Cannon, 1997, Jung et al., 2021; Mayer et al., 1995; Sako and Helper, 1997) have stated that the competence perceived by the consumer in a retail environment, could generate trust. Trust in the transaction is very important aspect for not only online purchases (Akbar et al., 2020; Bhatti et al., 2021; Dutor, 2015; Mallat, 2007; McCole et al., 2010; Sharma and Sharma, 2021) but is equally important when it comes to offline purchase/transactions. Trust enhances intention to buy (Ebrahim et al., 2020; Manzoor et al., 2020; Shin, 2010) by having a significant impact on transaction-specific brand equity.

Thus, it can be said that gaining customers’ trust at a retail checkout would result in increased transaction-specific brand equity for retailers (Badenhop and Frassetto, 2021). Ballester and Aleman (2005) analysed the role of brand trust in the development of brand equity by examining the



relationships network in which brand trust is embedded, and they then investigated the relationship as an antecedent and the main asset of brand equity (Biedenbach et al., 2019).

Empirical research on business customers in Taiwan found that service perceived value and trust have a significant influence on customer satisfaction and loyalty, which are the dimensions of brand equity (Liao and Wu, 2009). Hiscock (2001, p. 1) claimed that “the ultimate goal of marketing is to generate an intense bond between the consumer and the brand, and the main ingredient of this bond is trust.” Also, there is statistically significant evidence that brand trust predicts brand equity (Mohamed and Daud, 2012).

Trust could offer an appropriate representation to conceptualize and measure a more qualitative dimension of brand equity, and this dimension includes other characteristics and qualities of the brand that also have meaning and add value to retail management (Ambler, 1997; Blackston, 1995; El Naggar and Bendary, 2017; Gurviez, 1996; Heilbrunn, 1995).

Several studies have examined the direct impact of the trust factor on brand equity (Alhaddad et al., 2015; Biedenbach et al., 2019; Chahal and Rani, 2017; Ebrahim, 2020; El Naggar and Bendary, 2017; Han et al., 2015; Keller, 2016; Moussa and de Barnier, 2017) and Anselmsson et al. (2017) developed a CBBE framework for retailers where the customer’s trust was one of the antecedents to brand equity for the retail industry. Therefore, based on the discussion and considering the highlights of the effect of trust on customer-based brand equity in the transaction-specific context, the following hypothesis is proposed:

*Hypothesis 9: In a retail facility, the higher the transaction-specific trust of the customers is, the higher the transaction-specific brand equity is for that retailer.*

### **3.4.3 Transaction-specific Performance and Transaction-specific Brand Equity**

The third antecedent to transaction-specific brand equity, according to this study, is transaction-specific performance, reflecting the impact of transaction experience on transaction-specific brand equity. Strong evidence in the literature as discussed below supports the relationship of the two constructs.

Brand equity could be generated and developed with the management with some aspects that go beyond just customer satisfaction and with the functional performance of the product or its attributes

(Aaker, 1996; Lasser et al., 1995). Keller (1998) articulated the concept of brand equity and identified several components, one of which is brand performance, which relates to the ways in which a product or service attempts to meet consumers' functional needs (Keller, 1998). Therefore, a satisfactory brand performance could prove to be an asset for retailers (Wang and Jiang, 2019) and could add to their brand equity (Jeon, 2017; Liu et al., 2017).

Brands, through their functional and sentimental values, are effectively encoded in customers' perceptions, and brand performance denotes how a brand financially and non-financially succeeds in the competitive market (Franzen and Bouwman, 2001; Novari, 2020). According to Kotler (2006), brand equity is the consumer's ability to identify the brand under different conditions, and it is reflected in their brand recognition or recall performance. A number of researchers (Almeyda and George, 2020; Chaudhuri, 2002; Reid, 2002; Wong and Merrilees, 2007) view brand reputation, awareness, and loyalty, which are the dimensions of brand equity, as a brand's crucial performance.

This study looks into the concept of transaction-specific performance from the point of view of retailers' performance in regard to the transaction facilities and checkout mechanism that affect their transaction-specific performance. Hence, it can be claimed that brand performance is one of the five dimensions of CBBE (Almeyda and George, 2020; Anselmsson et al., 2017; Ekinci, 2018; Keller and Brexendorf, 2017; Lassar et al., 1995). Therefore, based on the discussion, which highlights the link between brand performance and customer-based brand equity, from the transaction-specific context, the relationship between transaction-specific performance and transaction-specific brand equity can be established and hence it is hypothesised as follows:

*Hypothesis 10: In a retail facility, the higher the transaction-specific brand performance rendered for their customers, the higher the transaction-specific brand equity for that retailer is.*

#### **3.4.4 Transaction-specific Brand Personality and Transaction-specific Brand Equity**

The fourth antecedent to transaction-specific brand equity, according to this study, is transaction-specific brand personality, reflecting the impact of transaction experience on transaction-specific brand equity. Brand personality is a complex construct, as it strives to define human traits in a brand (Keller, 2003), and in the transaction-specific context, it becomes even more complicated as a construct. However, various studies have been found that validate the relationship between transaction-specific brand personality and transaction-specific brand equity.

According to Holehonnur et al. (2009), brand attitude and brand personality make up the overall brand equity. On the other hand, Dyson et al. (1996), based on their proprietary brand equity model, stated that a person's self-reported brand value is driven by their personality and by their attitude towards the brand. A number of authors have outlined how brand personality helps build consumer-based brand equity (Ahmad et al., 2021; Farhat, 2020; Freling and Forbes, 2005a, 2005b; Keller, 2008; Palomba, 2021; Sharma, 2020). For example, a study by Lemon et al. (2001) shows that a consumer's attitude towards a wine brand is also a key component of brand equity.

A recent study by Ahmad et al. (2021) shows that brand personality has a strong relationship with brand equity and is considered to be an important antecedent to brand equity. Another study, by Dirgantari et al. (2020), considers brand personality to be a dimension of brand equity. Keller (2003) claimed that a favourable brand personality enhances brand attitudes, purchase intentions, consumer trust, and loyalty (Freling et al., 2011; Plummer, 1985), which in turn translate to higher levels of brand equity. Meanwhile, Shahzad et al. (2019) showed that brand personality mediates the relationship between customer experience and brand equity.

There have been a number of studies (Ahmad et al., 2021; Ahmad and Thyagaraj, 2015; Dirgantari et al., 2020; Farhat, 2020; Giroux et al., 2017; Jia, 2017; Keller, 2016; Keller and Brexendorf, 2017; Luffarelli et al., 2018; Sharma, 2020; Su and Tong, 2015; Wakefield et al., 2021) in different industries, such as sportswear, fashionwear, tourism, and most importantly, in retail industries, which show a direct link between brand personality and its effect on customer-based brand equity and consider brand personality as one of the important antecedents of brand equity (Ahmad et al., 2021). Therefore, based on the discussion above, the following hypothesis is proposed:

*Hypothesis 11: In a retail facility, the higher the perception of their transaction-specific brand personality perceived by the customers, the higher the transaction-specific brand equity for that retailer is.*

### **3.4.5 Transaction-specific Associations and Transaction-specific Brand Equity**

The fifth and final antecedent to transaction-specific brand equity, according to this study, is transaction-specific associations, reflecting the impact of transaction experience on transaction-specific brand equity. Much of the literature supports the relationship between the two constructs, and this study adopts the existing concepts and establishes the relationships within a transaction-specific

context. The relationship between transaction-specific associations and transaction-specific brand equity in light of the evidence in the existing literature is discussed below.

Through brand associations, retailers can differentiate and position their products, as well as building favourable attitudes and beliefs towards their brands (Dean, 2004). This, in turn, can lead to higher brand equity (Chen, 2001; Yoo et al., 2000). Brand awareness which leads to the formation of associations in the minds of customers has a significant impact on consumer decision making. Consumers generally use it as a decision heuristic, which benefits the management of customer-based brand equity (Cho and Hwang, 2020; Chung et al., 2013; Huang and Sarigollu, 2011; Norazah, 2013; Stocchi et al., 2021).

Strong, positive and unique associations reinforce a brand and increase its equity (Keller, 2020). Associations contribute to brand equity, as strong, positive associations induce brand purchases, besides generating good word-of-mouth publicity (Algharabat et al., 2020). The favourability, strength, and uniqueness of brand associations contributing to brand knowledge, determine the differential response that makes up brand equity (Keller, 2003; 2020).

According to Keller (2003, 2020), brand associations are a source of brand equity and can be the drivers of the brand strategy a company decides to implement. Brand equity creates market leverage and is affected by the types of associations that a brand has (Bridges et al., 2000; Broniarczyk and Gershoff, 2003; Keller and Brexendorf, 2019). Research by Pouromid and Iranzadeh (2012) shows that the relationship between brand association and brand equity is positive and significant. Over the decades, researchers and authors (Aaker, 1991, 1996; Algharabat et al., 2020; Chen, 2001; Çifci et al., 2016; Christodoulides et al., 2015; Das, 2020; Keller, 1993, 1998, 2003, 2020; Molinillo et al., 2018; Pappu and Quester, 2017; Yoo et al., 2000; Zablocki et al., 2017) have confirmed positive brand associations as one of the most important dimensions of brand equity.

Strong, positive, and unique associations reinforce a brand and have a significant impact on its brand equity (Keller, 2020). Brand equity is affected by the types of associations that a brand has (Bridges et al., 2000; Broniarczyk and Gershoff, 2003; Keller, 2020). According to Keller (2003b, 2020), brand associations are a source of brand equity and an antecedent of brand equity. From the transaction-specific perspective, using the same logic, it can be claimed that transaction-specific associations are an important antecedent of transaction-specific brand equity. Therefore, based on the discussion, which

highlights the effect of brand associations on customer-based brand equity, the following hypothesis is proposed:

*Hypothesis 12: In a retail facility, the higher the transaction-specific associations are, the higher the transaction-specific brand equity for that retailer is.*

### **3.5 SUMMARY**

The proposed research has clear implications for retailers and their customers by considering the importance of transaction experience and its impact on enhancing the transaction-specific brand equity. This investigation offers a more comprehensive approach to examining the impact of transaction experience on transaction-specific brand equity. This chapter has reviewed the literature on transaction experience, the transaction-specific outcomes and the antecedents to transaction-specific brand equity in order to construct the conceptual framework illustrated in Figure 3.1. Based on the literature, the concept of transaction experience, its outcomes, and their impact on transaction-specific brand equity are discussed; relevant hypotheses, summarised in Table 3.1 and illustrated in Figure 3.1, are presented.

The comparative lack of theoretical sources concerning the transaction experience led the author to review the literature on perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment and to measure transaction experience as a formative variable. The justifications for the measures of transaction experience are also stated in this chapter. While these sources provided some significant directions and guidelines, the author found that the literature was conceptual in nature. An examination of the literature resulted in the generation of 12 hypotheses, which can be divided into two broad categories: the outcomes of a positive transaction experience, reflecting RQ1, and the antecedents to transaction-specific brand equity, reflecting RQ2. The next chapter outlines the research design that is adopted to expand the scales for constructs as well as to test the proposed model.

Table 3.1: List of Research Hypotheses based on the Research Questions

<b>Research Hypotheses</b>	
<b>RQ.1) What is the outcome of a positive transaction experience?</b>	
H1	In a retail facility, the speedier, more convenient, and enjoyable a transaction experience is, the higher the transaction-specific satisfaction is for the retailer.
H2	In a retail facility, the higher the customer's transaction-specific satisfaction is, the higher the transaction-specific reputation is for the retailer.
H3	In a retail facility, the higher the transaction-specific reputation is, the higher the transaction-specific perceived value of the customers is for the retailer.
H4	In a retail facility, the speedier, more convenient, and enjoyable a transaction experience is, the higher the transaction-specific trust is for the retailer.
H5	In a retail facility, the speedier, more convenient, and enjoyable a transaction experience is, the higher the transaction-specific performance is for the retailer.
H6	In a retail facility, the speedier, more convenient, and enjoyable a transaction experience is, the higher the transaction-specific brand personality is for the retailer.
H7	In a retail facility, the speedier, more convenient, and enjoyable a transaction experience is, the higher the number of transaction-specific associations is for the retailer.
<b>RQ.2) How does transaction experience affect transaction-specific brand equity?</b>	
H8	In a retail facility, the higher the transaction-specific perceived value of the customers is, the higher the transaction-specific brand equity is for that retailer.
H9	In a retail facility, the higher the transaction-specific trust of the customers is, the higher the transaction-specific brand equity is for that retailer.
H10	In a retail facility, the higher the transaction-specific brand performance rendered for their customers is, the higher the transaction-specific brand equity is for that retailer.
H11	In a retail facility, the higher the perception of their transaction-specific brand personality perceived by the customers is, the higher the transaction-specific brand equity is for that retailer.
H12	In a retail facility, the higher the transaction-specific associations are, the higher the transaction-specific brand equity is for that retailer.

# **Chapter 4: RESEARCH METHODOLOGY AND RESEARCH DESIGN**

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## **4.1 INTRODUCTION**

The chapter clarifies the methodological foundation and the research design that has been implemented to test the hypotheses and validate the conceptual model developed in chapter 3. To answer the research questions and to empirically justify the proposed framework, this chapter is divided into ten sections. Section 4.1 starts with an introduction. Section 4.2 presents the description of the research design in the current study with justification of the selection of methodologies. The research design and the data collection process are outlined in section 4.3. The qualitative data collection procedure and the overview of the main survey and sampling are outlined in sections 4.4 and 4.5 respectively, while the quantitative data collection procedure and questionnaire design are discussed in section 4.6 and section 4.7. The techniques for data analysis and statistical packages used in this research are presented in Section 4.8. Finally, section 4.9 reflects the main ethical issues, and the chapter ends with a summary in section 4.10.

## **4.2 RESEARCH METHODOLOGY JUSTIFICATION**

The selection of methodology is associated with the aims and descriptions of this chapter. According to researchers (Deshpande, 1983; Foroudi, 2013; Kumar, 2019; Paris, 2020), the marketing paradigm is very suggestive: hence, the researcher defined a set of fundamental assumptions that serve as a guideline to understand the subject and to produce valid and reliable results. A paradigm is a set of beliefs that influences what should be researched, how it should be studied, and how the results should be understood (Alharahsheh and Pius, 2020; Bryman, 2004; McGregor, 2018; Pham, 2018). According to researchers (Black, 2018; Kelly et al., 2018; Tashakkori and Teddlie, 1998; Varpio and MacLeod, 2020), paradigms are contradictory world perspectives or belief systems that influence and steer research decisions.

According to Guba and Lincoln (1998), paradigms are described as systems of interrelated ontological, epistemological, and methodological assumptions. ‘Paradigm’ can be categorised in different ways. ‘Ontological Paradigm’ refers to the researcher’s view of social reality (Al-Ababneh, 2020; Carnielli and Rodrigues, 2021; Debele, 2020; Guba and Lincoln, 1998; Holbraad and Pedersen, 2017; Oppy, 2018). While ‘Epistemology Paradigm’ is the study of how individuals know things and the association between the researcher and the phenomenon studied, i.e., the nature, sources, and limits of knowledge

(Al-Ababneh, 2020; Guba and Lincoln, 1998; Sheth and Parvatiyar, 2002; Varpio and MacLeod, 2020). Thus, the methodological paradigm relates to the questions and strategies employed in a study to collect and validate empirical evidence, which means that it is the process of conducting the inquiry (Bogna et al., 2020; Creswell, 2003; Creswell and Clark, 2017; Guba and Lincoln, 1998; Gupta et al., 2011; Nielsen et al., 2020; Sheth and Parvatiyar, 2002). However, Lincoln and Guba (2000) argued that these claims are paradigms or research techniques.

Popular epistemological assumptions in social research are known to be interpretivism/idealism/phenomenology and positivism (Al-Ababneh, 2020; Balmer 2001, Bardal and Gildea, 2015; Cassell and Symon, 1994, Corbetta, 2003; Deshpande, 1983; Foroudi, 2013; Varpio and MacLeod, 2020). In contrast to Guba and Lincoln (1988), Tashakkori and Teddlie (1998) used positivism and constructivism. Table 4.1 gives a summary of each philosophical assumption, followed by a discussion of each assumption:

*Interpretivism* is a type of social science research that aims to explain how humans make sense of their surroundings in natural settings by using metaphors (Kelly et al., 2018; Neuman, 2003; Zahle, 2021). This is in addition to pragmatism, which is concerned with actions, events, and outcomes rather than antecedent conditions, and interpretivism, which argues for the establishment of an agenda to assist marginalized individuals (Alharahsheh and Pius, 2020; Creswell, 2003; Creswell and Clark, 2017; Nicotera, 2017; Zahle, 2021). Phenomenology's qualitative paradigm outlooks the world as the qualitative paradigm (Deshpande, 1983). Using inductive hypotheses, the interpretivist method aims to understand the world around us (Bryman, 2004; Zahle, 2021).

*Positivism* is the primogenital and most widely used way of problem solving. Strategies that are positivist in nature try to foster understanding. Positivism uses logical reasoning to carry out empirical and quantitative research studies (Creswell, 2003; Creswell and Clark, 2017; Nicotera, 2017). The quantitative paradigm is synonymous with the positivist logic of reasoning (Deshpande, 1983). Along with inferential statistics, hypothesis testing, and experimental and quasi-experimental design, positivism makes use of a variety of other tools. Positivism holds that social reality is objective and can be quantified, and this is the case in this research (Creswell, 2003; Creswell and Clark, 2017).



Table 4.1: Positivist vs Phenomenological Paradigm

	Positivist paradigm	Phenomenological paradigm
Basic belief	This world is something that exists outside of us and is objective.	The world is a social construction that is subject to interpretation.
	The observer is a third party.	The act of observing is a component of what is observed.
Preferred methods include	Science has no intrinsic worth.	Human interests are the driving force behind science.
	Concentrate on the facts.	Concentrate on the meanings.
	Investigate the relationship between events and fundamental laws.	Make an effort to comprehend what is occurring.
	Reduce the complexity of a phenomenon to its simplest components.	Each circumstance should be viewed in its full.
	Create theories and then put them to the test.	Use inductive reasoning to develop ideas from data.
	Massive amounts of data are obtained.	Small samples that are studied in depth or over time are explored.

Source: Easterby-Smith et al. (2002)

When selecting a paradigm, it is important to consider the nature of the study questions and objectives. Marketers should concentrate on both positivist and idealistic paradigms (theory verification and theory building) in order to avoid method bias (Deshpande 1983). This research is centred on positivism and shares certain characteristics with realism, for example, the inclusion of social facts in the findings (Burrell and Morgan, 2017). Examples of different ways to describe these paradigms are provided in Table 4.2. It is possible for a researcher to employ theory generation to generate a sequence of hypotheses that can then be tested statistically.

Table 4.2: Positivist vs Interpretive Paradigm

Positivist	Interpretive
Quantitative Objectivist Scientific Experimentalist Traditionalist	Qualitative Subjectivist Humanistic Phenomenological Revolutionist

Source: Malhotra and Birks (2003, p. 138)

Following both paradigms could have two main effects. Firstly, it helps to pinpoint a new set of scales, which could be useful in assessing marketing constructs. This study begins with an idealist paradigm based on a qualitative method (i.e., the use of interviews and focus groups) to explore the concept of transaction experience, the possible transaction-specific outcomes from a positive transaction experience, and its impact on transaction-specific brand equity. Thus, the researcher conducted the qualitative study to obtain preliminary insights into study problems, determining an appropriate scale to measure the focal construct, namely, transaction experience, which can be applied later for testing theories and hypotheses. In this study transaction experience is treated as a formative variable and measured through other lower order variables in a formative manner.

Secondly, it helps to improve the validity, reliability, and generalisability of the research (Bryman, 2006; Creswell, 2003; Creswell and Clark, 2017; Foroudi, 2013) by applying a positivist paradigm to test the model (Balmer, 2001), the hypotheses, and their causal relationship (Shiu et al., 2009). To decide which paradigms would generate a more accurate study, the nature of the research questions and objectives should be pondered to select particularly suitable research methodologies. The current research therefore implemented a quantitative (hypothetico-deductive) methodology for this research; consideration of the qualitative (inductive) study was required for several reasons.

The dearth of acceptable scales to assess the transaction experience construct has been noted. Although many researchers have studied customer experience (Berry and Haeckel, 2002; Burton et al., 2020; Gentile, 2007; Hodgkinson et al., 2021; Homburg et al., 2017; Kranzbühler et al., 2018; Meyer and Schwager, 2007; Novak et al., 2000; Schmitt, 2010; Verhoeff et al., 2009), the focus on transaction experience has been neglected (Gupta and Kim, 2007; Jain et al., 2017; Nasar et al., 2021). The ‘continuous’ idea of customer experience, which emphasises the relevance of transaction-specific customer experience, was introduced by Gentile (2007).

The customer experience has emerged as a new lever for creating value for both the company and the customer (Addis and Holbrook, 2001; Carù and Cova, 2003; Chylinski et al., 2020; Kuppelwieser and Klaus, 2021). Consequently, it is vital to connect the customer experience (transaction experience) to brand equity (transaction-specific) during a transaction. Consumer acquisition and retention are critical for a company’s growth and success (Jarvenpaa and Todd, 1997; Reichheld and Scheffer, 2000). Consequently, gaining a competitive advantage is essential. Many researchers believe that increasing attention on the customer is one of the most important strategies to acquire a competitive advantage (Douglas and Craig, 2000, Farinet and Ploncher, 2002; Kotler and Keller, 2006; Peppers and Rogers,

2000; Zablocki et al., 2017). Because the focus of this study is on consumers' perceptions of the organization, it was necessary to establish the nature of the relationship between transaction experience and transaction-specific brand equity. Palmer (2010) underlined the practical difficulties associated with developing and implementing a reliable scale for measuring customer experience. Numerous researchers (Angelini and Gilli, 2021; Bulmer and Buchannan-Oliver, 2004; Elliott, 1997; Holbrook, 2006; Holbrook and Hirschman, 1982; Hwang and Seo, 2016; Schenkman, 2021) have argued that qualitative techniques are the most effective way to truly understand customer experience because non-linear and contextually sensitive measurements of customers' experiences are difficult to find in research studies. Furthermore, such techniques are better adapted to theory testing than they are to hypothesis development (Balmer, 2001). Table 4.3 compares and contrasts the qualitative and quantitative techniques to data collection.

Table 4.3: Qualitative vs Quantitative Approach

	Quantitative Research	Qualitative Research
Purpose	Deductive: verification and outcome oriented Precise measurement and comparison of variables Establishing relationships between variables Interface from sample to population	Inductive: discovery and process oriented Meaning Context Process Discovering unanticipated events, influences, and conditions Inductive development of theory
Research questions	Variance questions Truth of proposition Presence or absence Degree or amount Correlation Hypothesis testing Causality (factual)	Process questions How and Why Meaning Context (holistic) Hypotheses as part of a conceptual framework Causality (physical)
Relationship		
	<b>RESEARCH METHODS</b>	
Sampling	Objectivity/ reduction of influence (research as an extraneous variable)	Use of influence as a tool for understanding (research as part of process)
Data Collection	Probability sampling Establishing valid comparisons	Purposeful sampling
Data Analysis	Measures tend to be objective Prior development of instruments Standardisation Measurement/testing-quantitative/categorical	Measures tend to be subjective Inductive development of strategies Adapting to a particular situation Collection of textual or

Reliability/Validity  Generalisability	Numerical descriptive analysis (statistics, correlation) Estimation of population variables Statistical hypothesis testing Conversion of textual data into numbers or categories	Textual analysis (memos, coding, connecting) Grounded theory Narrative approaches
	Reliable Technology as instrument (the evaluator is removed from the data)	Valid Self as instrument (the evaluator is close to the data)
	Generalisable The outsider's perspective Population oriented	Ungeneralisable The insider's perspective

Source: Maxwell and Loomis (2003, p. 190) and Steckler et al. (1992).

According to some scholars (Easterby-Smith et al., 2002; Gupta et al., 2011; Melewar and Saunder, 1999), the positivist approach, employs qualitative approaches to explain human behaviour in a representative sample. Positive thinkers also strive to create a pure interview that accurately represents social reality and examines its viability and acceptability (Silverman, 1993). Miller and Glassner (1997) believed that “research cannot provide the mirror reflection of the social world that positivists strive for, but it may provide access to the meanings people attribute to their experience and social worlds” (p. 100).

### 4.3 RESEARCH APPROACH

The pluralistic research approach was chosen to offer a more comprehensive understanding of the research problem (Caniglia et al., 2021; Deshpande, 1983; Frost and Bailey, 2020; Mingers, 2001), which was mentioned in Chapter 1. According to Mingers (2001), the various research methods (especially from different paradigms) emphasis on different aspects of reality. Hence, a richer understanding of a research together in a single piece of research or research program. Therefore, the topic will be gained by combining several methods together in a single piece of research or research program (p. 241). Some researchers (Deshpande, 1983; Mingers, 2001) think neglecting non-positivist methodologies (e.g., in-depth interviews) hinders the interpretation of positivist researchers' findings.

According to certain scholars (Al-Ababneh, 2020; Chekurovet al., 2021; Creswell, 2003; Creswell and Creswell, 2017; de Sousa et al., 2020; Gupta et al., 2011; Palmer and Gallagher, 2007), the use of more than one research method (such as a focus group, an interview, and a questionnaire) can help

researchers to understand the phenomenon under investigation better and reveal new insights. The growth of research techniques and the perceived legitimacy of both quantitative and qualitative research are driving the adoption of mixed-methods approaches in the social and human sciences literature to gather and analyse both qualitative and quantitative data (Chekurovet al., 2021; Creswell and Creswell, 2017; Edwards, 2020; Gupta et al., 2011). According to Creswell (2003), the approach of combining both methods is a “quantitative study based on testing a theory in an experiment with a small qualitative interview component in the data collection phase” (p. 177). As a result, this study employs a mixed-method approach for the collection of data. Creswell et al. (2003), mixed-methods research incorporates both qualitative and quantitative data collection method and analysis into one project, as the sequential collection of qualitative and quantitative data might help to confirm, cross-validate, or corroborate conclusions.

There are four phases that can be identified in the mix-method research: initiation, the stage before the data collection, i.e., when the study problem/measures/sample are generated; implementation, which refers to the sequence the researcher uses to collect both quantitative and qualitative data (Creswell et al., 2003); integration, which occurs within the research questions, data collection, data analysis (Creswell et al., 2003; Creswell and Clark, 2017); and interpretation, where conclusions are drawn to strengthen the knowledge claims of the research or to explain any discrepancy of convergence. In the past, mixed methods were usually employed in the data collection phase, later on, combinations were employed in the different stages of the study process: problem setting, theory building, data collection, analysis, and interpretation (Bryman, 2006; Creswell, 2003; Creswell and Creswell, 2017). Mixed methods escalate a construct’s reliability and validity (e.g., Bryman, 2006; Churchill, 1979; Creswell, 2003; Creswell and Creswell, 2017). Moreover, combining qualitative and quantitative methods often enhances individual strengths of each other (Palmer, 2011).

The qualitative data analysis for this study was carried out by adopting the content analysis method. Bryman (2006) and McCusker and Gunaydin (2007) developed the foundations for undertaking quantitative and qualitative research, respectively. First and foremost, Greene et al. (1989) developed the significant scheme for assessment research. Each article was coded with a primary and secondary rationale (Bryman, 2006, Foroudi, 2013; Greene et al., 1989). Bryman (2006) claims that the first scheme, developed by Greene et al. (1989, p. 259), separates five justifications for combining qualitative and quantitative research (see Table 4.4). In addition to its simplicity, Greene et al.’s (1989) technique offers the advantage of “reducing the number of reasons for undertaking multi-strategy research to only five, notwithstanding the authors’ observations that initiation is uncommon” (p. 105).

In this method, qualitative research is essential for understanding the complex social phenomena, which helps the researcher to develop the theme from the respondents' points of view. The quantitative research condenses the large amount of data for generalising the data, which can be considered as a disadvantage, because, it only allows quantitative data to be coded. Therefore, a more detailed but significantly less strict scheme was formulated. Bryman (2006) identified the second scheme with the rationales for its use (Table 4.4).

The groundwork of the research is based on a positivist approach, incorporating some features with realism at the same time. Hence, it considers the existence of social facts (Bryman, 2004). Following the positivist approach, the conceptual framework was verified by undertaking an empirical investigation. The aim was to explain the concept of transaction experience, after which, it was imperative to generalise the research with a larger sample. This was done so, using a questionnaire (as a survey tool) and thus by adopting the empirical study with quantitative research. Otherwise, researchers can start with the quantitative methods and progress towards the qualitative research. Creswell et al. (2003), has set a similar example, where the key approach was a quantitative research based on exploring a theory, but with the added component of a few brief qualitative interviews in the phase of data collection (Foroudi, 2012). Figure 4.1 illustrates the procedures of mixed methods research.

Table 4.4: Justifications and Rationale for Mix Method Study

<u>First scheme</u>	
Triangulation	Comparing and contrasting the results of different approaches. Code triangulation was used to discover correlations between quantitative and qualitative data.
Complementarity	Looking for a way to compare the outcomes of one strategy with the outcomes of another.
Development	Using data from one technique to assist in the development or informing the sample, implementation, and measurement decisions of another approach.
Initiation	Exploring paradoxes and contradictions, new framework perspectives, and the recasting of questions or results from one technique with questions or outcomes from another approach in order to uncover new insights.
Expansion	
Triangulation or greater validity	Employing several approaches to widen the scope of the investigation.
<u>Second scheme</u>	

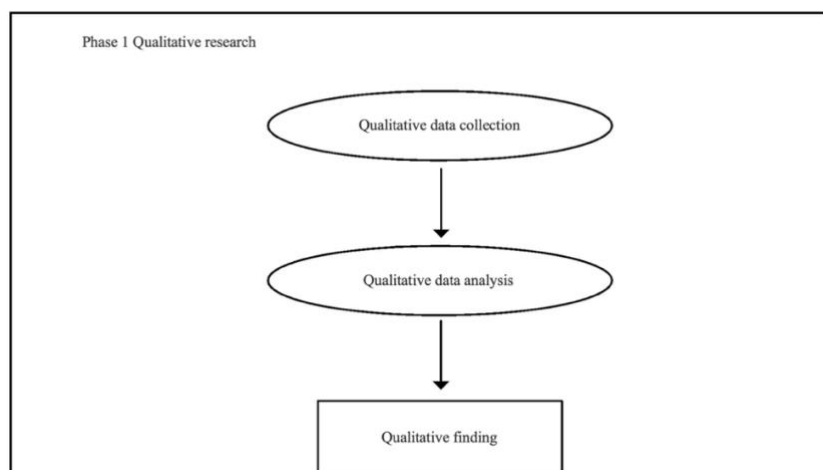
Offset	The traditional notion that quantitative and qualitative research can be combined in order to triangulate findings and obtain mutual confirmation is debunked. When the term ‘triangulation’ was used to integrate quantitative and qualitative research, it was not considered to be triangulation.
Completeness	Both quantitative and qualitative research procedures have advantages and disadvantages that may be countered by combining the two methods.
Process	The use of both quantitative and qualitative research methodologies allows the researcher to gain a more comprehensive understanding of the topic under investigation.
Different research questions	Quantitative research describes social structures, whereas qualitative research depicts the processes that occur inside social structures.
Explanation	
Unexpected results	However, this item was coded only if the authors expressly mentioned that they were conducting qualitative research in addition to quantitative research in order to answer multiple research topics.
Instrument development	
Sampling	
Credibility	The findings of one are used to explain the findings of the other.
	When one type of research produces unexpected results that may be explained by using the other type of research, it is suggested that the two types of research should be merged to produce successful results.
	Qualitative research is used to develop questionnaire and scale questions, such as better wording or more thorough closed responses, through focus groups and interviews.
	This refers to situations in which a single approach is used to sample a large number of respondents or instances.
	In this case, it is suggested that using both methodologies improve the integrity of the findings.
Context	This term refers to circumstances where a survey and qualitative research are combined to provide contextual understanding and generalisable, externally valid conclusions.
Illustration	This term is used to describe the use of qualitative data to illustrate quantitative findings using qualitative data, often known as ‘putting meat on the bones of dry quantitative findings.’
Utility or improving the usefulness of findings	In this case, it is the idea that integrating the two techniques will be more beneficial to practitioners and others. This suggestion is more likely to be prominent among papers with an applied focus because it is more practical.
Confirm and discover	
Diversity of views	This involves using qualitative data to produce hypotheses and quantitative research to test those hypotheses all within the scope of a single project.

Enhancement or building upon quantitative/qualitative findings	Among the reasons for conducting quantitative research are two that are slightly different from one another: combining researchers' and participants' perspectives by conducting quantitative research or qualitative research, and uncovering relationships between variables by conducting quantitative research.
	This refers to the process of increasing or enhancing either quantitative or qualitative findings by the collection of data using either a qualitative or quantitative research approach, respectively.
Other / unclear Not stated	

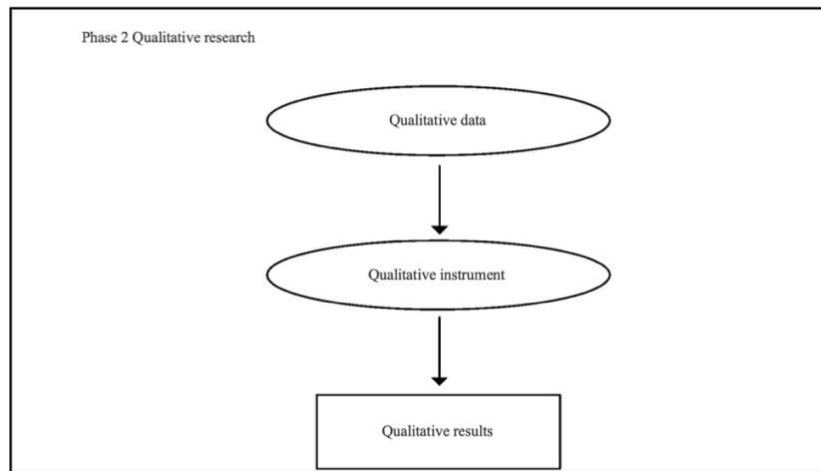
Source: Adapted by Bryman (2006, pp. 105-107)

Before completing a primary survey, the researcher has undertaken an inductive approach to establish hypotheses followed by purifying the measures. This was done in order to increase the validity of the study (Deshpande, 1983). In the early stages of an investigation, it is recommended to use a quantitative strategy with multi-method interaction (Churchill, 1979). When it comes to examining transaction experience (which is the root of transaction-specific brand equity), quantitative methodologies are preferable (de Sousa et al., 2020; Glaser and Strauss, 2017; King et al., 2018; LeBlanc and Nguyen, 1998; William and Moffit, 1997). However, this method is more suitable for theory testing rather than for theory generation (Balmer, 2001; de Sousa et al., 2020; Foroudi, 2013; Glaser and Strauss, 2017; Rusfian and Alessandro, 2021).

Figure 4.1: Mixed method process







Source: Creswell et al. (2003, p. 235)

Taking into consideration the standpoint of positivists as stated above and based on the discussion on mixed-methods studies, this research adopted qualitative methods, such as in-depth interviews with senior management (of retail facilities and banks) and experts and focus groups with academics in Business Management, MBA students, office employees, bus drivers, and retail workers.

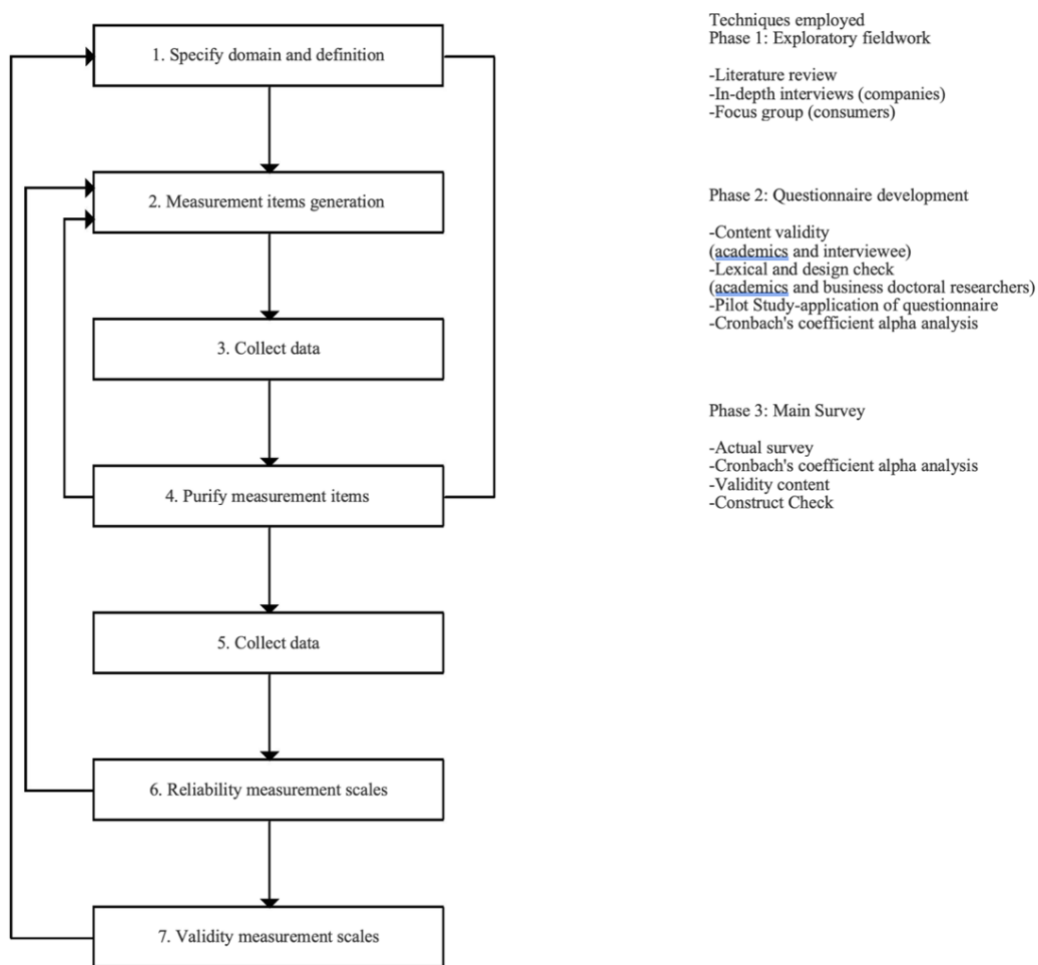
In this study, the qualitative methodology was predominantly applied, since there is a lack of understanding of the concept ‘transaction experience’ and ‘transaction-specific’ outcomes, which needed to be defined and measured accordingly. In order to validate the measurement scales, both the main survey and qualitative study were conducted to gain a better familiarity with the practice of the transaction experience. Researchers (Creswell and Crewell, 2017; Deshpande, 1983; Foroudi, 2013; Zinkhan and Hirschheim, 1992) have stated that, to examine an unknown domain or a domain that has received relatively lower attention, combining qualitative and quantitative methods are appropriate. Rendering to the research questions, consumer is the most suitable unit for analysis, for both the qualitative and quantitative studies.

Taking into consideration, Churchill (1979)’s strategy, a questionnaire for the main survey was developed for this study, based on previous literature, to determine and define the domain of this research and its measurements for perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, perceived transaction security, transaction-specific satisfaction, transaction-specific trust, transaction-specific brand performance, transaction-specific associations, perceived reputation, brand personality, and transaction-specific brand equity. These were the revised

variables that were implemented after the qualitative study and used in the final survey questionnaire. The entire conceptual model had to be redesigned after the qualitative study (see details in Chapter 5).

To measure transaction experience and to establish a set of reliable and valid scales for determining the measurement reliability, this research adopted Churchill's (1979) approach for developing measures of multiple items for marketing constructs (DeVellis, 2003; Gerbing and Anderson, 1988). This is expected to result in stronger relationships than the use of single-item measures. In this study, transaction experience is measured through perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment. Churchill (1979)'s theory incorporates a qualitative paradigm while being predominantly quantitative in nature. Figure 4.2 illustrates the proposed steps in the development of a measurement scale for marketing constructs.

Figure 4.2: Steps in Measurement Scale development



Source: Churchill (1979, p. 66)

In accordance with Churchill (1979), exploratory fieldwork constituted the initial phase of the research design. This initial phase is covered in more detail in the following section.

#### **4.4 THE QUALITATIVE STUDY (THE FIRST PHASE OF DATA COLLECTION)**

A preliminary exploratory study was conducted to determine the research questions outlined in Chapter 1. To the best of the author's knowledge, no study has so far produced a valid, reliable scale to measure transaction experience. Thus, this study aimed to fill the gap in this area and follow Churchill's (1979)'s technique to develop an appropriate scale for transaction experience. An initial exploratory research was undertaken for various reasons: 1) to get an in-depth understanding of the research area (Dacin and Brown, 2002; Flick, 2018); 2) to achieve insights into the transaction experience concept in the context of perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment; 3) to recognise the actual practice in the field in order to gauge whether the proposed research study was relevant; and 4) to obtain perceptive information and comprehend the proposed research questions, generate hypotheses, and purify the measures for a questionnaire (Churchill, 1979).

According to Churchill (1979), an exploratory study comprises "a judgement sample of persons who can offer ideas and insights into the phenomenon" (p. 66). Exploratory investigations usually start broad and then focus on development (Creswell and Creswell, 2017; Saunders et al., 2007). A sample item is a representation of a concept, (exploratory research, literature search, interview, and focus group) (Churchill 1979). Using the above-mentioned techniques, the focal construct transaction experience and the transaction-specific constructs which are the outcomes of transaction experience are measured in this study by undertaking interviews and focus groups.

Past research (Alwi et al., 2016; Brannen 2017; Foroudi, 2013; Kumari et al., 2021; Lai et al., 2016; Lobe et al., 2021; Merriam and Grenier 2019; Palmer, 2011; Ritchie et al., 2003) suggests that combining in-depth interviews and focus group discussions could be very useful during qualitative research, and together they could offer new insights into existing data (Bergen and Labonté, 2020; Braun and Clarke, 2020; Brannen, 2017; Kumari et al., 2021; Lai et al., 2016; Lobe et al., 2021; Merriam and Grenier, 2019; Palmer and Gallagher, 2007; Ritchie et al., 2003). Additional information was gathered through interviews and focus groups that had not been discovered through the literature study from Chapters 2 and 3. However, large samples are rarely used in exploratory research (Malhotra and Birks, 2000; Nardi, 2018; Swedberg, 2020). In order to reduce flaws, the qualitative data were used to construct a quantitative study, which was primarily a post-qualitative designed questionnaire

(Churchill, 1979). The significant advantage of in-depth interviews and focus groups is illustrated in Table 4.5.

Table 4.5: In-depth Interviews vs Focus Groups

	In-depth interviews	Focus groups
Nature of data	<p>For the purpose of creating detailed personal accounts.</p> <p>To comprehend one's own personal situation.</p> <p>To investigate issues in depth and detail.</p>	<p>In order to generate data shaped by group interaction, refined, and reflected, it is necessary.</p> <p>To show a social context for a topic.</p> <p>To generate innovative ideas and solutions.</p> <p>To bring attention to and encourage discussion of differences within the group.</p>
Subject matter	<p>To comprehend complicated processes and concerns.</p> <ul style="list-style-type: none"> <li>-Inspirations and decisions</li> <li>-Impacts and consequences</li> </ul> <p>To investigate the private lives of persons who are subjected to social norms.</p> <p>For dealing with difficult problems.</p>	<p>To address abstract and conceptual issues using enabling or projective approaches, or to offer information.</p> <p>For concerns that might be exposed by the exhibition of societal standards, such as race relations.</p> <p>With appropriate group selection and handling, several delicate issues can be addressed.</p>
Study population	<p>Those who have the ability or willingness to travel can take part.</p> <p>The study population is geographically distributed in this situation.</p> <p>Where there is a significant degree of cultural diversity.</p> <p>When there are questions of power or social standing.</p> <p>Where there is a lack of communication between people.</p>	<p>Respondents are more likely be willing to go to a group discussion, held in their hometown.</p> <p>Where there is a concentration of people geographically speaking.</p> <p>Any situation in which there is a common background to the research topic or any particular relevance to it.</p> <p>Respondents who are unlikely to be constrained by a group setting should be considered.</p>

Source: Adapted from Ritchie et al. (2003)

In the next section, the planning, management, and data interpretation of the qualitative stage are explained.

#### **4.4.1 The planning, management, and data interpretation of the qualitative stage**

Numerous strategies for assessing qualitative data have been developed, all of which have been subjected to intense debate (Bazeley, 2007; Bernard et al., 2016; Braun et al., 2019; Bryman and Burgess, 1994; Lester et al., 2020; Maxwell, 2021; Miles et al., 2018; Silverman, 1993). To conduct the qualitative research, a grounded theory was implemented to test the data. To analyse the qualitative data, a process of coding was used and guided by the conceptual framework that was developed based on the literature.

The researcher built the codes through the creation of a shared understanding of transaction experience, its elements, the transaction-specific outcomes, and the final outcome, which sets the framework for coding and analysing the data. Furthermore, the researcher determined that the start codes were addressing the research questions, hypotheses, problem areas, and/or key variables that the researcher identified (Miles and Huberman, 1994, Miles et al., 2018; Palmer and Gallagher, 2007). The theories and questions posed in the research were subjected to extensive testing (Bell et al., 2018; Glaser and Strauss, 2017; Guba 1990; Sheth and Parvatiyar, 2002; Maxwell, 2021).

The coding of the narratives was initially based on the open codes process and the constructs, which were acknowledged in the literature review. According to several authors (Braun et al., 2019; Gibbs, 2018; Miles and Huberman, 1994; Nowell et al., 2017), the initial list of codes should be based on a “conceptual framework, list of research questions, hypotheses, problem areas, and/or key variables that the researcher brings to the study” (p. 58). The researcher prepared a memo for each interview transcript, before the transcript was coded. Coding the data makes it simpler to search, to make comparisons, and to identify any patterns which might need further investigation. The practise of coding data from interview transcripts usually simplifies the process in approaches to qualitative analysis (Bell et al., 2018; Braun et al., 2019; Foroudi, 2013; Weston et al., 2001).

Under descriptive codes, data that was collected were gathered from which several thematic ideas emerged, related to the same content (Bell et al., 2018; Braun et al., 2019; Foroudi, 2013; Malhotra and Birks, 2000; Lincoln and Guba, 1985). According to Lincoln and Guba (1985), it is vital to “devise rules that describe category properties and that can, ultimately, be used to justify the inclusion of each data bit that remains assigned to the category as well as to provide a basis for later tests of replicability”

(p. 347). The process assured that the theoretical ideas, which emerged from the initial coding, can be systematically portrayed in the data (Esterberg, 2002). According to the researchers (Esterberg, 2002; Huberman and Miles, 1994), codes are analysed in three stages: open coding, axial coding, and selective coding. In order to code the qualitative data, the researcher trialled the methods of previous researchers (Esterberg, 2002; Huberman and Miles, 1994). Undertaking the three stages of coding improve the reliability of the evolving data. Table 4.6 presents the stages of the coding process.

Table 4.6: Stages of Coding for the Qualitative Data

Stages of coding process	
Open coding	The concept identification stage of grounded theory coding is where the theory is codified.
Axial coding	In the second step of grounded theory coding, first order concepts generated during open-coding are inductively transformed into second order concepts.
Selective coding	The final stage of grounded theory coding is the recognition, refinement, and integration of emergent theory findings.

Source: Esterberg, 2002; Huberman and Miles, 1994

Open codes were used to begin the data analysis process. The main categories result from the interpretation and categorization of higher conceptions. It was possible to develop a starting list of open codes by going through the texts (interview transcripts) line by line and highlighting parts where transaction experience and its transaction-specific outcomes were discussed. The transcripts were thoroughly scrutinized twice more to identify textual trends that were relevant to the literature review.

Each statement was compared to the previous sentences to determine whether there were any parallels or differences. If the codes were identical, they were coded in exactly the same way. Where the codes were too much in contradictory, a new sentence was assigned with a separate label. The primary purpose of open coding is to identify patterns in texts that correspond to the literature under consideration. Later, the researcher went back over the open codes and made more comments and memos to the open programs in order to improve the overall study. This resulted in the development of the axial code. The goal of this step of data analysis is to establish linkages and contrasts between

core categories and sub-categories in order to find patterns in texts. In their respective works, Balmer (1996) and Ngulube (2015) asserted that systematic axial codification began after open coding. Axial coding is unique in that it does not cause data analysis to be misleading. By taking into account all open codes in a single case, axial coding was maximized.

Axial coding is a procedure that involves comparing data on a continuous basis. The axial code was created by comparing and contrasting data disparities and similarities utilizing open coding. The open codes were compared to one another as well as to the axial codes that were formed after they were produced. This strategy assists researchers in the development of new axial codes, the updating of existing codes, and the merging of existing codes.

Selective coding, the ultimate level of coding, is concerned with integrating ideas that are continually growing. When conducting grounded theory analysis, this is the stage that is the most difficult. It is necessary to describe phenomena in a limited number of words in order to create a hypothesis that can finally match the evidence (Creswell and Clark, 2017; Foroudi, 2013; Strauss and Corbin, 1998).

According to Spangle (1994), selective coding “involves moving to a higher level of abstraction with the developed paradigmatic constructs, specifying relationships, and delineating a core category or construct around which the other categories and constructs revolve and that relates them to one another” (p. 495). According to Belgrave and Seide (2019) and Strauss and Corbin (1998), selective coding begins during the axial coding stage of the coding process. The researcher employed three additional techniques, in addition to the standard theoretical coding process, such as comparison, asking questions, and writing memos, 1) considering the research questions as a general guideline, 2) re-considering the open codes and raw data whilst comparing axial codes, and 3) reviewing the codes with the supervisors and experts in order to identify the fitness and connection between the codes (Foroudi, 2012).

By deducing the review of the data, the researcher was able to establish the dimensions of transaction experience, its main causes, and its consequences. It was necessary to organize the data and develop a more extensive synthesis and analysis of the information gathered. Thus, QSR Nvivo Version 8 was used to complete the project (Dalkin et al., 2021). The software assisted the researcher in examining the entire text at a glance, making it easy to see the interrelationships between the codes (Paré and Trainer, 2020; Welsh, 2002). It also has the capability of storing and retrieving data (Dalkin et al., 2021; Esterberg, 2002). In order to analyse and arrange qualitative data, the researcher employed both

manual and computer-based tools (Welsh, 2002; Zamawe, 2015). Before progressing to the qualitative data analysis, the content of extracting the nodes was checked for consistency.

The use of software ensures the rigour of the analysis. Nvivo enables the researcher to evaluate the data in more depth, hence confirming the quality and dependability of the research. This strategy also ensures a more methodical, comprehensive, and attentive research (Bazeley, 2007). Using this software allows the researcher to capture, organize, and share their ideas with others, as well as discover and explore new ones. The software is organized in a symmetrical, clear, and precise manner. Thus, the use of Nvivo as a computer-assisted qualitative data analysis application simplifies the processing and analysis of large amounts of qualitative data (Dalkin et al., 2021; Gibbs, 2018; Paré and Trainer, 2020; Zamawe, 2015).

To validate the reliability of the coding with content analysis, the code was established more than once (Bengtsson, 2016; Foroudi, 2013; Weber, 1985) by a second researcher, to obtain their agreement on the identification of the themes. Content analysis research technique is used to relate data to its surrounding context. Patton (2001) stated, “The qualitative analyst’s effort at uncovering patterns, themes, and categories is a creative process that requires making carefully considered judgments about what is really significant and meaningful in the data” (p. 406). Therefore, each word and phrase were coded, allowing the researcher to assess the inferred or intended meaning of the speaker’s words and phrases (Weston et al., 2001).

This study attempted to uncover the phenomenon inside the data based on a preceding research-driven code development approach (Weston et al., 2001). The researcher tried to discover the phenomenon within the data, and with the help of markers, tried to indicate where the phenomenon began and where it ended (Foroudi, 2013; Weston et al., 2001). This approach was based on a prior research-driven code-development approach (Patton, 2001; Strauss and Corbin, 1998). Then it was possible for the researcher to collect ‘rich’ data in the form of accurate transcripts of all the interviews. This resulted in gathering sufficient information to test the developing scales and allowed for consistency of terminology and consistency with previous works. Finally, clarification of the data with the relevant research framework was presented.

It is vital to have high-quality data in social sciences since they examine human activities from a variety of philosophical and methodological perspectives (Ritchie et al., 2003). Validity and reliability are important factors to consider when designing, assessing, and evaluating research. For qualitative



research, there is no universally accepted definition of reliability and validity. Hence, it is critical to perform an evaluation of the research's 'trustworthiness'. When it comes to evaluating truth, dependability, validity, and trustworthiness are important considerations (Ledford and Gast, 2018; Lincoln and Guba, 1985). Seale (1999) stated that the: "trustworthiness of a research report lies at the heart of issues conventionally discussed as validity and reliability" (p. 266). Therefore, instead of using a statistically random sample, the researcher used a theoretical sample in order to "increase opportunities for comparing concepts along their properties for similarities and differences, allowing researchers to define categories, differentiate among them, and specify their range of variability" (Strauss and Corbin, 1998, p. 149).

As Lincoln and Guba (1985) stated, "There is no validity without reliability, an expression of the former validity is sufficient to establish the latter reliability" (p. 316). The strength, dependability, and validity of the data are required in order to define it. The reliability of a study is determined by the validity of the research (Patton, 2001). This method of assessing a study's validity and reliability is commonly used in qualitative research to reduce bias and increase the study's honesty, and it is also utilized in quantitative research. According to Creswell and Miller (2000), triangulation is a "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study" (p. 126).

The validity, reliability, and evaluation of a study are all improved with triangulation. Because there are so many different techniques to establish truth, dependability, validity, and triangulation are key research principles to comprehend and comply. Several methods were used to increase trustworthiness in this investigation, as shown in Table 4.7. The researcher evaluated the content's stability after coding it numerous times to confirm that the coding was accurate and dependable (Foroudi, 2013; Weber, 1985). Besides, to assess the reliability of the evolving categories of transaction experience, one independent coder was employed, with considerable qualitative research experience and who was unfamiliar with the study.

Table 4.7: Assessing v the Criteria of Trustworthiness

Traditional criteria	Trustworthiness criteria	Techniques employed to ensure trustworthiness
Internal validity	Credibility	Quality access (the researcher was provided with an office desk, computer, access to company intranet, email address, freedom of talking to and interviewing anybody, freedom of getting any company documents, including lots of confidential strategic documents.) and extensive engagement in the field. Multiple triangulations Peer debriefing Constant comparison
	External validity	Transferability Detailed description of the research setting Multiple cases and cross-case comparison
Reliability	Dependability	Purposive and theoretical sampling Cases and informants confidentiality protected Rigorous multiple stages of coding
Objectivity	Confirmability	Separately presenting the exemplar open and axial codes. Word-by-word interview transcription Accurate records of contacts and interviews Writing research journal Carefully keeping notes of observation Regularly keeping notes of emergent theoretical and methodological ideas

Source: Based on Lincoln and Guba (1985)

#### 4.4.2 The Interview

In-depth interviews give researchers “the opportunity for the researcher to probe deeply to uncover new clues, open up new dimensions of a problem and to secure vivid, accurate inclusive accounts that are based on personal experience” (Burgess, 1982, p. 107). Therefore, interviews were conducted in order to identify and operationalize the major components of the transaction experience construct, which served the objectives. In order to gain a deeper understanding of the subject and collect behavioural and attitude data, this study conducted in-depth interviews with store managers (Kumar, 2019; Palmer and Gallagher, 2007; Shiu et al., 2009; Yin, 1984). Instead of presenting herself as a student, the researcher presented herself as a researcher (Easterby-Smith et al., 2002). In addition, the researcher established trust with the respondents using a variety of appropriate methods.

This study employed a topic guide to develop an interview guide that was centred on transaction experience, balanced the interview with critical concerns, and encouraged discussion continuity among the participants. The researcher conducted in-depth personal interviews with potential respondents at well-known retailers in London, UK, who used contactless technology to identify potential respondents. The researcher chose different types of retailers, such as café/coffee shop, superstores, and fast-food restaurants, and identified the best person(s) to contact regarding the research topic. As

such, the researcher contacted a wide range of key managers working for those retailers such as marketing manager, brand manager, communications manager, retail manager, customer service manager, and so on. The researcher also included one bank manager, as they had a deeper understanding of the topic from the other side of the table, that is, issuing the contactless cards for customers that they then use at retailers. Also, a key person from London Underground was contacted as London Underground rigorously promote contactless technology. The contacts and phone numbers were arranged and they were asked whether they were interested in contributing to the study. Out of the 14 retail managers and other senior managers who were approached, all replied either by mail or by email, but 5 of them declined to take part in the research because of their tight schedules. Therefore, 9 in-depth personal interviews were conducted.

The majority of the in-depth interviews were conducted face-to-face with individual respondents in order to gain a better understanding of the research goal (Churchill, 1999). In addition, the interviewees were in charge of selecting the venues and times, so the interviews were conducted at a place specified by the subject (Ritchie et al., 2003; Thille et al., 2021). To guarantee the reliability of the data, all the interviews were videotaped and transcribed verbatim (Andriopoulos and Lewis, 2009; Kumar, 2019) to determine the most fundamental motivations, beliefs, attitudes, and feelings about the subject. During the interviews, a question sheet was utilized to ensure that all the necessary topics were discussed (see Appendix 4.1).

A qualitative study also makes use of non-quantifiable variables, such as value, perception, and attitude, to inform its conclusions. Attitude is a crucial concept that helps us understand and anticipate the emotions of others (Fishbein and Ajzen, 1975; Kluegel and Smith, 2017; Petty, 2018; Zwicker et al., 2020). It also enables respondents to study and evaluate the characteristics of experience aspects using questionnaires (Law et al., 2014). In order to test an attitude dimension, it was necessary to use a prepared set of responses for the direct question (Malhotra and Birks, 2000), as it means the process of gathering information is “more reliable because the responses are limited” (Malhotra and Birks, 2000, p. 210).

Company/retail management should be interviewed, according to Balmer (2001), who called for a more exploratory investigation (Churchill, 1979; Melewar, 2001). To gain a better understanding of the experiences, sentiments, and opinions of study participants, marketing researchers employ a qualitative technique known as content analysis, which has been discussed in more detail earlier (Malhotra and Birks, 2000). In this study, the goal of the qualitative study was to have a better

understanding of the transaction experience concept. The name of the organisation, the position of the interviewee and the date and duration of each interview of the interviewees are listed in Table 4.8. (See Appendix 4.1 for the interview protocol).

Table 4.8: In-depth Interview Summary

Interview Date	Organisation	Interview position	Interview duration
22.02.2017	Marks and Spencer	Commercial Manager	1 Hour
23.02.2017	London Underground	Station Supervisor	45 Minutes
24.02.2017	Coffee Republic	Marketing Manager	1 Hour 30 Minutes
24.02.2017	Costa Coffee	Store Manager	50 Minutes
25.02.2017	Vital Ingredients	Customer Service Manager	1 Hour 30 Minutes
03.03.2017	McDonald's	Business Manager	1 Hour
08.03.2017	Boots	Manager	50 Minutes
17.03.2017	Select Service Provider (SSP)	Brand Manager	55 Minutes
18.03.2017	HSBC	Customer Relationship Manager	1 Hour 30 Minutes
Topics discussed			
understanding of the concept of transaction experience factors that influence transaction experience aftermath of a positive transaction experience impact of the positive transaction experience on the consumers' satisfaction and perceived value understanding of the impacts of the transaction experience on (Transaction-specific) brand equity awareness and promotion of the contactless technology			

Source: The Researcher

#### 4.4.3 Focus Groups

Focus groups were carried out to comprehend the individuals' perception about the research; since not much was known before the investigation, the data collected from the focus groups provided extensive information (Byers and Wilcox, 1991) within a limited time (Morgan, 1998). The researcher was open to new ideas within the process of the study. Conducting focus groups allowed the researcher to gain further insights into what people think about transaction experience and its relation to transaction-specific brand equity (Churchill, 1979; Fern, 1982; Krueger, 1994). According to many authors (Alwi

et al., 2016; Byers and Wilcox, 1991; Foroudi, 2013; Zeller, 1986), marketing researchers adopt the focus group method as an outstanding source of qualitative data.

Focus groups were conducted in the current study due to several reasons: 1) “people are a valuable source of information”, 2) “people can report on and about themselves, and that they are articulate enough to verbalise their thoughts, feelings, and behaviours”, 3) “the facilitator who ‘focuses’ the interview can help people retrieve forgotten information” 4) “the dynamics in the group can be used to generate genuine information, rather than the group think phenomenon”, 5) “interviewing a group is better than interviewing an individual” (Byers and Wilcox, 1991, p. 65), and 6) “identifying and pretesting questionnaire items” (Fern, 1982, p. 1). Once a new knowledge is discovered, the research is then set in an appropriate new direction.

For this study, four focus groups were conducted with a total of 28 participants (all from a variety of occupations) to examine the concept of transaction experience and the results obtained. The ages of the respondents ranged from 19 to 50 years old, with a mean of 34 years. Because the participants came from a variety of cultural and professional backgrounds, the research was more valuable (Smithson, 2000). It also assisted the researcher in gathering a large amount of information on the subject (Kover, 1982). Participants were divided into four groups for the activity.

The participants in each group were asked about their concept of transaction experience, the possible outcomes, and the concept of ‘transaction-specific’ constructs. The semi-structured, open-ended questions provided respondents with the opportunity to reply from a variety of perspectives. Focus groups of four people were developed in order to make the environment more welcoming and comfortable for the participants. One group consisted of academics and researchers, the second consisted of young MBA students from a business school, the third was mostly retail employees with a few bus drivers, and the fourth group had staff from various offices in London. The participants in the focus group were questioned about their perceptions of transaction results as well as their actual transaction experiences (see Table 4.5 for focus group discussion questions). The profession of those who participated in the focus group interviews are listed in Table 4.9. The protocol for the focus groups is shown in Appendix 4.2. Group interviews were more efficient than one-on-one interviews and had the added benefit of allowing for discussion among the participants.

The venues and timing of the focus group interviews were decided by the participants based on what was most convenient to the members of the same group. Two of the groups (academics and MBA

students) were interviewed at a secured conference room at Middlesex University which was previously booked by the researcher for that purpose. The researcher tried to facilitate an adequate conducive environment for the respondents so that they feel comfortable to express their opinions (Malhotra and Birks, 2000). Besides, a group discussion offers safety in numbers, and it is vital to think about the extent to which a group forum is one in which participants will be able to communicate fully (Ritchie et al., 2003). The focus group contributed to some diversity in the group composition, which allowed the researcher to gain further insights into what they felt about the retail industry and contactless payment as a whole (Churchill, 1979; Krueger, 1994).

Table 4.9: Focus Group Summery

Interview date	Number of participants	Interview occupation	Focus Group	Interview approx. length
10.03.2017	8	Academics and Researchers	A	1 hour 30 Minutes
14.03.2017	5	MBA Students	B	1 Hour
19.03.2017	8	Bus Drivers and Retail workers	C	1 Hour
23.03.2017	7	Office workers	D	1 Hour
<b>Topics discussed</b>				
<ul style="list-style-type: none"> <li>- The understanding of transaction experience</li> <li>- General information about the terms ‘transaction-specific’ trust and performance</li> <li>- Impression of what they understand about transaction experience and their relationship to a retailer’s image and reputation</li> <li>- The impact of the positive transaction experience on the consumers’ satisfaction and perceived value</li> <li>- Discussion of how transaction-specific brand’s personality/ies can be created and developed through customers’ transaction experience</li> <li>- The understanding of the transaction-specific associations and their impacts on the consumers about the retailer</li> <li>- The understanding of the term ‘transaction-specific’ brand equity</li> <li>- The understanding of how a positive perceived value towards a retailer is important to strengthen the customer-based brand equity of an organisation</li> <li>- The understanding of the concept of transaction experience and its impact on transaction-specific brand equity</li> </ul>				

In order to prevent one or more group members from dominating the research conversation, the researcher urged everyone to speak up during the research session. Smithson (2000) defined the collective voice as “a group process of collaboratively constructing a joint perspective, or argument, which emerges as a collective procedure leading to consensus, rather than any individual’s view” (p. 109). The focus group interviews were reorganized, and verbatim transcriptions were made of the recordings. The transcriptions made by both recorders were examined. The names of those who took part in the study were modified to preserve their privacy. The next section describes how the information was utilized to produce the questionnaire.

#### 4.5 THE QUANTITATIVE STUDY (THE SECOND PHASE)

The purpose of this section is to develop valid and reliable measures for the theoretical construct, through synthesising insight from the existing literature and from the qualitative study. Numerous items were generated in the first phase, some of which were identical or equivalent items. Hence, they were excluded for the sake of parsimony. A number of academics evaluated the items generated from the qualitative research, and removed the unnecessary measures to ensure that these items were representative of the scale’s domain. The next section outlines how the information was incorporated into the questionnaire development.

##### 4.5.1 Domain Construct Specification

Preparing the subject domain for a questionnaire begins with reading suitable literature and qualitative studies. This is the first step in developing a questionnaire. To date there has been no true and trustworthy scale for measuring transaction experience now, and this thesis will fill that gap. To improve the metrics that capture the domain of the constructs, Churchill’s (1979) paradigm was followed. The operational definition of the focal construct, as well as its dimensions, are established. The main constructs and their definitions are depicted in Table 4.10.

Table 4.10: Definition of Constructs

Constructs	Definitions & major references
<b>Transaction experience</b>	A set of transaction-specific interactions between a customer and the product/service provider (Gentile et al., 2007; Hoch, 2002; Kerin et. al., 1992; Meyer and Schwager, 2007; Terblanche and Boshoff, 2002), which provokes reaction (Gentile et. al., 2007) involving cognitive, affective, emotional, social (Bolton et al., 2014; Brakus et al., 2009; Gentile et al., 2007; Meyer and

	Schwager, 2007; Shilpa and Rajnis, 2013), behavioural and physical (Bolton et al., 2014; Meyer and Schwager, 2007; Pine and Gilmore, 1998; Shilpa and Rajnis, 2013) responses evoked by transaction-related stimuli such as enjoyment, ease, and speed of transaction (Brakus et al., 2009).
<b>Perceived transaction speed</b>	The extent to which the prospective user of NFC perceives (Chen, 2008; Teo et al., 2015) that it saves them time (Collier and Sherrell, 2010; Dabholkar, 1996) and improve the speed of transaction (Chen, 2008; Davis et al. 1992; Nguyen et al., 2018; Teo et al., 2015) during the transaction experience.
<b>Perceived transaction convenience</b>	The extent to which the prospective user of NFC perceives that it allows them to undertake the transaction with speed and ease (Berry et al., 2002; Chen et al., 2018; Collier and Sherrell, 2010; Duarte et al., 2018 Gupta and Kim, 2007; Seiders et al., 2000) and increased convenience (Chen, 2008; Chen et al., 2018; Teo et al., 2015) during the transaction experience.
<b>Perceived transaction enjoyment</b>	The extent to which the prospective user of NFC perceives the transaction to be enjoyable in its own right, apart from any performance consequences that may be anticipated (Bedi et al., 2017; Davis et al., 1992; Gumussoy, 2016; Heijden, 2004; Lee and Tsai, 2010; Park et al., 2012; Venkatesh, 2000; Zhou and Feng, 2017) during their transaction experience.
<b>Transaction-specific satisfaction</b>	Refers to a customer's post-transaction evaluation and assessment of the prior transaction experience (Anderson et al., 2004; Cadotte et al., 1987; Fornell, 1992; Kim, 2005; Labarbera and Mazursky, 1983; Oliver, 1997; Shankar et al., 2003) to form the norms of transaction-specific retail performance (Cadotte et al., 1987; Labarbera and Mazursky, 1983; Lee et al., 2018; Lien et al., 2017; Sulphrey and George, 2017).
<b>Transaction-specific reputation</b>	Customer's overall evaluation of a firm (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017; Weiss et al., 1999), based on his or her dis/satisfactory reactions to the firm's communication activities followed by the transaction experience (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017).
<b>Transaction-specific perceived value</b>	Overall assessment (Zeithaml, 1988) of customers' perceived benefits and customers' perceived sacrifices in a transaction with the product/service provider (Day, 2000; Gupta and Kim, 2007; McDougall and Levesque, 2000; Oliver and De Sarbo, 1988; Zeithaml, 1988) jointly formed through consumers' transaction experience (Gupta and Kim, 2007; Prebensen and Xie, 2017; Shechter, 1984).



<b>Transaction-specific trust</b>	The confidence (Ballester et al., 2003; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994), trustworthiness (Ballester and Alemaín, 2005), and reliability (Ballester et al., 2003; Chaudhuri and Holbrook, 2001; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994) that one will find what is desired in a transaction rather than what is feared (Deutsch, 1973).
<b>Transaction-specific performance</b>	Consumer's judgment about a retailer's fault- and hassle-free transaction experience and the overall perceived effectiveness of the transaction (Hult et al., 2008; Lassar et al., 1995; Punjaisri and Wilson, 2017; Venkatraman and Ramanujam, 1986).
<b>Transaction-specific brand personality</b>	The set of human characteristics associated with a transaction/payment method (Aaker, 1997; Grohmann, 2009) mostly in a symbolic way to differentiate the organization providing the transaction experience from that of competitors (Aaker, 1996; Conejo et al., 2017; George and Anandkumar, 2018; Liao et al., 2017) so as to deliver a vivid and more personal meaning to the consumers (Biel, 1993; Keller, 1993; Keller and Richey, 2017; Siguaw et al., 1999).
<b>Transaction-specific associations</b>	Informational nodes linked to the brand node in the memory (Aaker, 1991; Emari et al., 2012; Füller and Bilgram, 2017; Keller, 1998) that contains the meaning of the brand/payment instrument (Keller, 1998), including the payment procedure of the company, and is related to the information (Emari et al., 2012; Osselaer and Janiszewski, 2001) on what is in the customer's mind about their entire transaction experience (Emari et al., 2012; Keller, 1998).
<b>Transaction-specific brand equity</b>	The differential effect (Barwise 1993; Keller, 1993; Keller and Brexendorf, 2017) that retail brand knowledge (from the transaction experience) has on consumer response to the marketing of that retail brand (Keller, 1993; Keller and Brexendorf, 2017) and the added value to that retail brand as perceived by a consumer (Aaker, 1991; Broniarczyk and Alba 1994; Keegan et al., 1995; Park and Srinivasan 1994).

Source: The Researcher

This research focuses on examining the concept of transaction experience, its 'transaction-specific' outcomes, and its influence on transaction-specific brand equity. Therefore, the literature review included customer experience and various forms and levels of experiences but focused mainly on

transaction experience and the brand equity literature. The existing scales relating to domains as well as items are extracted from various marketing, branding, customer behaviour, retailing, management and e-commerce/technology-based journals, such as the *Journal of Marketing*, *Journal of Marketing Research*, *European Journal of Marketing*, *Journal of Retailing*, *Journal of Customer Behaviour*, *Computers in Human Behaviour*, *Information System Research*, *Management Science*, and *International Journal of Human-Computer*. On the basis of the theoretical evidence, the conceptual framework was designed from the literature review (see Figure 3.1).

#### **4.5.2 Generation of Measurement Items**

The second step in Churchill's (1979) paradigm is item generation. According to De Villis (2003), the following recommendations were made, which were taken into consideration when designing the scale: 1) avoid unusually long items; 2) determine the reading level of each item; 3) avoid double-barrelled items; 4) avoid ambiguous pronoun references; and 5) do not include items that are both positively and negatively expressed (pp. 66-70). To design the measuring items, the researcher used a combination of findings from the literature and from the qualitative research (i.e., semi-structured interviews with experts and focus groups with people from academia and postgraduates) to gather information (Churchill, 1979; Foroudi, 2013; Gupta et al., 2010, 2011; Palmer, 2011; Rusfian, et al., 2021). Each component is represented by a multi-item scale that was derived from previously published research and modified for this study.

A lot of "uniqueness or specificity" can be found in single-items, according to Churchill (1979), "in that each item appears to have only a low correlation with the attribute being measured, and has a tendency to relate to other attributes" (p. 66). According to Freling et al. (2010), a pleasing attribute can lead to a more favourable evaluation of the thing, which in turn, leads to a more positive attitude toward the object. An unsatisfactory attribute, on the other hand, may cause a negative attitude toward the object in question. A single item can also have a high level of measurement error and can provide "unreliable responses in the same way, preventing the administration of an instrument on a second occasion" (Churchill, 1979, p. 66).

The primary goal of conducting qualitative research in this study was to obtain new insights that had not previously been discovered through another research. Following the management and expert interviews, as well as four focus groups, the literature is reviewed once more. Churchill (1979) advised employing a multi-item scale for each component in order to assess its validity. In marketing research, scholars (Churchill, 1979; Jacoby, 1978, Koffman, 1990; Lichtenstein et al., 1990; Mohajan, 2017;

Peter, 1981; Zaichkowsky, 1985) have stressed the need to evaluate the reliability and validity of the measurements employed in the research. Therefore, the researcher developed scales on the basis of previous research that are extremely dependable and valid. Items from the literature were firstly selected and defined. The researcher then identified the relevant items; however, these were kept to a minimum to avoid redundancy in the measures and an exceptionally lengthy questionnaire.

The initial item generation resulted in 150 items. The measurement items generated: 28 items for a positive transaction experience, which is measured through perceived transaction speed measured with 9 items, perceived transaction convenience with 10 items and perceived transaction enjoyment with 9 items. In addition, there were 11 items generated initially for transaction-specific satisfaction, 13 items for perceived reputation, 10 items for perceived value, 12 items for transaction-specific trust, 11 items for transaction-specific performance, 14 items for transaction-specific brand personality, 10 items for transaction-specific associations, and 13 items for transaction-specific brand equity.

However, changes were made to the conceptual framework, and some items and measures were added or removed. Perceived security was a new construct that was added to the conceptual framework, and perceived value was eliminated. Hence, ten items to measure perceived security were added, and ten items that are used to measure perceived value were deleted. The modification resulted in no change in the total number of items. Following the qualitative analysis, the constructs and item counts are displayed in Table 4.11.

Table 4.11: No of Items Post Qualitative Analysis

Constructs		No. of Items
Transaction experience		38
<i>Transaction experience elements</i>	Perceived Transaction Speed	9
	Perceived Transaction Convenience	10
	Perceived Transaction Enjoyment	9
	Perceived Transaction Security	10
Transaction-specific Satisfaction		11
Transaction-specific Trust		12
Transaction-specific Performance		11
Transaction-specific Associations		10

Perceived Reputation	12
Brand Personality	11
Transaction-specific Brand Equity	13

Source: The Researcher

The following main constructs and the measurements from the literature and the qualitative study are illustrated in Table 4.12 (see also Chapters 2 and 3 for the literature review).

Table 4.12: The Domain and Items for Each Construct

Constructs	Items	Reference
<b>Perceived Transaction Speed (PTS)</b>	PTS1: I believe that using contactless payment will improve the speed of my transaction.	Chen, 2008 Tanjaya, 2020 Teo et al., 2014 <i>Qualitative study</i>
	PTS2: I believe that using contactless payment will save me time.	Chen, 2008 Tanjaya, 2020 Teo et al., 2014 <i>Qualitative study</i>
	PTS3: Compared to traditional payment methods, I believe that transactions will be faster if I pay with the contactless option.	Chen, 2008 Teo et al., 2014
	PTS4: I am able to complete a transaction with contactless technology without spending too much time in the queue.	Collier & Sherrell, 2009 <i>Qualitative study</i>
	PTS5: Contactless payment lets me complete a transaction quickly.	Collier & Sherrell, 2009
	PTS6: Using the contactless option will make my transaction much more productive.	Dabholkar, 1996 Tanjaya, 2020 Venkatesh & Bala, 2008
	PTS7: I believe speed is one of the most important elements during my transaction experience.	<i>Qualitative study</i>
	PTS8: It makes me happier if I can just 'touch and go' at the checkout.	<i>Qualitative study</i>
	PTS9: I believe that transactions will be slower if I pay with the contactless option.**R	Chen, 2008 Tanjaya, 2020 Teo et al., 2014
<b>Perceived Transaction Convenience</b>	PTC1: I believe that paying contactless is convenient.	Chen, 2008 Jiang et al., 2013 Kim, 2007 Lin, 2016 Tanjaya, 2020

<b>(PTC)</b>		Teo et al., 2014 <i>Qualitative study</i>
	PTC2: It is more convenient to pay with my contactless card for my travel on the London underground and buses.	Chen, 2008 Jiang et al., 2013 Lin, 2016 Tanjaya, 2020 Teo et al., 2014
	PTC3: I believe that using the contactless payment option will be hassle-free.	Chen, 2008 Lim & Kim, 2011 Tanjaya, 2020 Teo et al., 2014 <i>Qualitative study</i>
	PTC4: Compared to traditional payment methods, I believe that the contactless payment method is much more convenient.	Chen, 2008 Tanjaya, 2020 Teo et al., 2014
	PTC5: I find it easy and simple to use contactless payment for my transactions.	Chang et al., 2010 Jiang et al., 2013 Kaura et al., 2014 Lim and Kim, 2011
	PTC6: It takes little effort to pay with my contactless card during my transactions.	Kaura et al., 2014
	PTC7: Contactless payment makes my transaction experience smoother and more effective.	<i>Qualitative study</i>
	PTC8: I don't have to worry about receiving the wrong change when I am paying with contactless.	<i>Qualitative study</i>
	PTC9: I don't have to dig into my wallet for change when I am paying with contactless.	<i>Qualitative study</i>
	PTC10: Contactless payment is a lifesaver when I sometimes can't recall my PIN.	<i>Qualitative study</i>
<b>Perceived Transaction Enjoyment (PTE)</b>	PTE1: I enjoy making transactions using contactless payment.	Chen et al., 2016 Davis et al., 1992 Hwang & Kim, 2007 Lee & Tsai, 2010 Sun & Zhang, 2006 Venkatesh & Bala, 2008 Yi & Hwang, 2003 <i>Qualitative study</i>
	PTE2: I feel that the actual process of using contactless payment is pleasant.	Davis et al., 1992 Hwang & Kim, 2007 Lee & Tsai, 2010 Sun & Zhang, 2006 Venkatesh & Bala, 2008 Yi & Hwang, 2003
	PTE3: I have fun paying with contactless payment.	Chen et al., 2016 Davis et al., 1992 Hwang & Kim, 2007 Lee & Tsai, 2010 Sun & Zhang, 2006 Venkatesh & Bala, 2008 Yi & Hwang, 2003

	PTE4: I think contactless methods of payments are an interesting way of making payments.	Teo & Noyes, 2011 Than et al., 2015 Yi & Hwang, 2003
	PTE5: I believe that paying with contactless is entertaining.	Chen et. al., 2016 Lee & Tsai, 2010
	PTE6: I experience pleasure while paying with contactless.	Lee & Tsai, 2010 Chen et al., 2016
	PTE7: In my opinion, waiting in the queue for shorter time is joyous.	<i>Qualitative study</i>
	PTE8: It makes me happy to be able to pay contactless when I am in a rush.	<i>Qualitative study</i>
	PTE9: It make me happy if someone in front of the queue pays contactless.	<i>Qualitative study</i>
<b>Perceived Transaction Security (PTK)</b>	PTK1: I consider that using contactless payment is secure.	Dutot, 2015
	PTK2: I don't think that the information transferred by using contactless technology can be intercepted by other people.	Dutot, 2015
	PTK3: I believe that contactless technology has mechanisms to ensure the safe transmission of its users' transaction information.	Flavián & Guinalú, 2006 Ranganathan & Ganapathy, 2002
	PTK4: I think contactless technology providers show great concern for the security of any transactions.	Flavián & Guinalú, 2006 Ranganathan & Ganapathy, 2002
	PTK5: I think contactless technology has enough security measures to protect my personal and financial information.	Carlos Roca et al., 2009
	PTK6: I have confidence in the security of my transaction using contactless technology at certain retails.	Chellappa, 2008
	PTK7: Transaction security is a very important element during my transaction experience.	<i>Qualitative study</i>
	PTK8: I don't have to worry about anyone trying to see my PIN number while paying contactless.	<i>Qualitative study</i>
	PTK9: I would only be confident with those retailers who would ensure that my transaction is safe and secure each time during my transaction.	<i>Qualitative study</i>
	PTK10: I would only be confident with those retailers who would ensure that my transaction is fault-free each time during my transaction.	<i>Qualitative study</i>
<b>Transaction-specific Satisfaction (TSS)</b>	TSS1: I am satisfied with my transaction experience the last time I made a contactless payment.	Andaleeb & Cornway, 2006 Bhattacharjee, 2001(b) Bodet, 2008 Chang et al., 2010 Oslen & Johnson, 2003 Shiau & Luo, 2012 Youl Ha & Perks, 2005
	TSS2: I am happy with the way contactless payment works.	Bhattacharjee, 2001(b) Collier and Sherrell, 2009 Shiau & Luo, 2012 Wibowo et al., 2021
	TSS3: I am pleased to shop in retailers where they accept contactless payments.	Collier and Sherrell, 2009 Wibowo et al., 2021

	TSS4: I would recommend my friends and colleagues visit those retailers who facilitates contactless purchases.	Andaleeb & Cornway, 2006 Chang et al., 2010 Youl Ha and Perks, 2005
	TSS5: I would choose a retailer with the contactless payment option.	Chang et al., 2010 Kaura et al., 2014
	TSS6: Making transactions using contactless payment is exactly what I need when I am in a hurry.	Chang et al., 2010 Kaura et al., 2014 <i>Qualitative study</i>
	TSS7: I prefer to pay with contactless where possible during my future transactions.	Andaleeb & Cornway, 2006
	TSS8: It makes me very happy to pay with contactless, especially when I am rushing.	<i>Qualitative study</i>
	TSS9: Paying with contactless is an enjoyable experience.	<i>Qualitative study</i>
	TSS10: It makes me very happy to pay with contactless when I forget my PIN sometimes.	<i>Qualitative study</i>
	TSS11: I am not happy with the way contactless payment works. **R	Bhattacharjee, 2001(b) Collier and Sherrell, 2009 Shiau & Luo, 2012 Wibowo et al., 2021
<b>Transaction-specific Trust (TST)</b>	TST1: Based on my experience, I know the contactless payment process is trustworthy.	Alwi, et al., 2016 Chaudhuri & Holbrook, 2001 Dutot, 2015 Gefen et al., 2003 Habibi et al., 2014 Hao, 2020
	TST2: I believe that it is safe to use contactless cards for making transactions.	Hao, 2020 Matzler et al., 2008 Morgan-Thomas & Veloutsou, 2011; 2013 Park 2009
	TST3: I believe that my transaction with contactless payment is likely to be safe only with those retailers whom I trust.	Chellappa, 2008 Hao, 2020
	TST4: I can count on certain retailers for using contactless payment when I am in a hurry.	Alwi, et al., 2016
	TST5: I think the contactless payment process is fast and reliable.	Alwi, et al., 2016 Matzler et al., 2008 Park, 2009
	TST6: I think that the banks issuing contactless cards have a high integrity policy.	Park, 2009 <i>Qualitative study</i>
	TST7: I will keep an ongoing habit of paying contactless at retailers whom I trust.	Lee & Back, 2008 Hao, 2020
	TST8: Only certain trustworthy retailers will promptly inform me if any problems occur during my transaction with contactless pay.	Youl Ha & Perks, 2005

	TST9: I know the retailers who will give me a full refund if there is any error during my transaction.	<i>Qualitative study</i>
	TST10: My level of trust when using a contactless transaction in a retail facility is based on my previous transaction experiences with that retailer.	<i>Qualitative study</i>
	TST11: In my opinion, younger customers are more confident to pay contactless during their transaction than the older ones.	<i>Qualitative study</i>
	TST12: In my opinion, the younger generation have more trust in any new technology such as contactless payment than the older generation have.	<i>Qualitative study</i>
<b>Transaction-specific Performance (TSP)</b>	TSP1: I can expect a superior performance with contactless payment from certain retailers.	Lassar et al., 1995 Shi et al., 2021
	TSP2: My transaction experiences of using contactless payment options with certain retailers are trouble free.	Lassar et al., 1995 <i>Qualitative study</i>
	TSP3: Contactless payment fits my lifestyle.	Lehmann, et al., 2008 Shi et al., 2021
	TSP4: I feel comfortable making contactless transactions with certain retailers with whom I have experience.	Lehmann, et al., 2008 Zhang et al., 2017
	TSP5: Adapting contactless technology is likely to increase a retailer's overall performance.	Lai, et al., 2010 <i>Qualitative study</i>
	TSP6: If my bank didn't issue me contactless card, I would rather change my bank.	Lehmann, et al., 2008 Shi et al., 2021
	TSP7: At some of the retail shops, where I often use contactless pay, it has earned my confidence.	Lehmann, et al., 2008 Shi et al., 2021 <i>Qualitative study</i>
	TSP8: I prefer those retailers with whom I have never experienced any faulty transaction.	<i>Qualitative study</i>
	TSP9: I prefer those retailers who ensure that everything is working properly and accurately.	<i>Qualitative study</i>
	TSP10: The staff at the checkout must be competent and careful to ensure that my transaction is safe.	<i>Qualitative study</i>
	TSP11: The staff at the checkout must be competent and careful to ensure that my transaction is accurate.	<i>Qualitative study</i>



<b>Transaction-specific Associations (TSA)</b>	TSA1: I can easily recognize which cards/tags issued by the banks can be used to pay with contactless.	Füller and Bilgram, 2017 Yoo & Donthu, 2001 Yoo et al., 2000 <i>Qualitative study</i>
	TSA2: I can easily recognize which card readers/terminals installed by the retailers accept contactless payment.	Yoo & Donthu, 2001 Yoo et al., 2000 <i>Qualitative study</i>
	TSA3: I am aware of those retailers who facilitate contactless technology for their customers.	Yoo & Donthu, 2001 Yoo et al., 2000 Zha et al., 2020
	TSA4: Some characteristics of contactless payment method come to my mind quickly.	Yoo & Donthu, 2001 Yoo et al., 2000 Zha et al., 2020
	TSA5: I can quickly recall the symbol or logo of contactless payment.	Yoo & Donthu, 2001 Yoo et al., 2000 <i>Qualitative study</i>
	TSA6: I like retailers who accept contactless payment.	Tong & Hawley, 2009 Yoo & Donthu, 2001
	TSA7: I think that the retailers that have adopted contactless technology are very competitive and innovative.	Wang et al., 2008 Zha et al., 2020 <i>Qualitative study</i>
	TSA8: I believe that the retailer that has contactless technology in place would be technically advanced.	Aaker, 1991
	TSA9: I have in my mind which retailers always try to keep up with technological advancement such as contactless pay, Apple Pay etc.	<i>Qualitative study</i>
	TSA10: All the associations that I have in my mind are based on my past experience with them.	<i>Qualitative study</i>
<b>Perceived Reputation (PR)</b>	PR1: My perception towards a retail facility is positive if it has a contactless payment option in place.	Foroudi, 2012 Lai et al., 2010
	PR2: I admire and respect companies that offer contactless payment methods.	Foroudi, 2012
	PR3: I admire and respect banks that provide contactless cards to their customers.	Foroudi, 2012
	PR4: I believe that the queue management at the checkout can be well managed with contactless pay.	Cretu & Brodie, 2007 Foroudi, 2012 Wallin, 1994 <i>Qualitative study</i>
	PR5: I believe London Underground and buses have been well managed since they started accepting contactless payment.	Cretu & Brodie, 2007 Foroudi, 2012 Wallin, 1994 <i>Qualitative study</i>
	PR6: I think that some retailers like M&S, Tesco, Superdrug and Royal Mail have a good reputation in the market as they offer a contactless payment option.	Thomas & Veloutsou, 2013 Walsh & Beatty, 2007

	PR7: I have grown to like those retailers who have adopted contactless technology more than those who have not.	Caruana & Ewing, 2010
	PR8: I intend to continue making purchases from those retailers who have contactless payment as an option over the next few years.	Caruana & Ewing, 2010
	PR9: When I am in a hurry, I like to purchase using my contactless card.	Caruana & Ewing, 2010 <i>Qualitative study</i>
	PR10: I believe that the retailers who have adopted contactless technology are innovative.	Cretu & Brodie, 2007 Lai, et al., 2010
	PR11: I believe that the retailers who have adopted contactless technology have a good long-term future ahead.	Cretu & Brodie, 2007 Lai, et al., 2010
	PR12: If I had a positive perception about a retailer's reputation, I would recommend it to my friends and family.	<i>Qualitative study</i>
<b>Brand Personality</b>  (BP)	BP1: I can imagine contactless technology to have a personality like a human being.	Aaker, 1996 Fung & King, 2010 Keller and Richey, 2017 <i>Qualitative study</i>
	BP2: I have a clear image of the type of person who would use contactless pay.	Aaker, 1996 Fung & King, 2010 Keller and Richey, 2017
	BP3: I think paying with a contactless card is interesting.	Aaker, 1996 Fung & King, 2010
	BP4: I perceive contactless technology to be reliable.	Aaker, 1997 <i>Qualitative study</i>
	BP5: I perceive contactless technology to be sophisticated.	Aaker, 1997 <i>Qualitative study</i>
	BP6: I perceive contactless technology to be professional.	Aaker, 1997 <i>Qualitative study</i>
	BP7: I perceive contactless technology to be stylish.	Aaker, 1997 <i>Qualitative study</i>
	BP8: If contactless technology were a human being, I would imagine it as a modern person.	<i>Qualitative study</i>
	BP9: If contactless technology were a human being, I would imagine it as an efficient person.	<i>Qualitative study</i>
<b>Transaction-specific Brand Equity</b>  (TBE)	TBE1: I prefer to shop at a retailer that accepts contactless payment, than at those who do not have it, even if they are of the same type.	Keller and Brexendorf, 2017 Yoo & Donthu, 2001 Yoo et al., 2000 <i>Qualitative study</i>
	TBE2: I prefer to use the bank that provides me with a contactless card rather than a bank who doesn't.	Yoo & Donthu, 2001 Yoo et al., 2000
	TBE3: It seems smarter to make a transaction with a contactless card.	Keller and Brexendorf, 2017 Tong & Hawley, 2009 Yoo & Donthu, 2001 Yoo et al., 2000

TBE4: I was treated fairly the last time I was in touch with the bank that issued my contactless card.	Olsen and Johnson, 2003
TBE5: Contactless payment option is definitely my first choice while making quick and small payments.	Gil et al., 2007 Keller and Brexendorf, 2017 Tan, et al., 2015 <i>Qualitative study</i>
TBE6: I think that contactless technology is well established in London.	Sasmita & Suki, 2015
TBE7: If I trust a retailer, I prefer to make transactions from there more often.	<i>Qualitative study</i>
TBE8: I would be a loyal customer to those retailers who have a better performance.	<i>Qualitative study</i>
TBE9: I would admire a brand with a positive personality just as I would admire a person who has a good personality.	<i>Qualitative study</i>
TBE10: Positive transaction-related associations are likely to add value to a retailer.	<i>Qualitative study</i>
TBE11: If I fall in love with a brand or a technology like contactless, I will get attached to it.	<i>Qualitative study</i>
TBE12: If I fall in love with a brand or a technology like contactless, I will recommend it to my friends and family.	<i>Qualitative study</i>
TBE13: I would make transactions at a retailer even if I didn't trust them. **R	<i>Qualitative study</i>

Source: The Researcher

### 4.5.3 Purification of Measurement Scales

The third step in Churchill's (1979)'s paradigm is the purification of scales. The calculation for purifying measures is associated with the measurement model (Churchill, 1979). The term 'validity' refers to "the extent to which the researcher's goal was accomplished" (McDaniel and Gates, 2006, pp. 224-227). Before completing the primary survey, this study examined two forms of validity: face validity and content validity. Both are subjective and both are used to determine the adequacy of the questionnaire. Content validity, according to Kerlinger (1973), is "the extent to which a specific set of items reflects a content domain" (DeVellis, 2003, p. 49).

The first version of the questionnaire was discussed with eight members of the marketing faculty from Middlesex University's Business School in order to determine the content validity of the questionnaire items (Bearden et al., 1993; Zaichkowsky, 1985). It was decided to include their recommendations after they had remarked on the items' applicability and proofread the phrasing. The importance of each statement was discussed, as well as which items should be kept in the database (Foroudi, 2013; Lichtenstein et al., 1990). They were also asked to judge whether the items used in the instrument were representative of the area being investigated. Experienced academics have analysed the domain of a

scale in previous investigations. Consequently, the conclusion of this technique represents the ‘informed’ perspectives of content professionals (Green et al., 1988). The substance, materials, and themes associated with the trait being evaluated are all included in the content of a measurement instrument (Green et al., 1988). The advantages and limitations of content analysis are shown in Table 4.13.

A panel of five academics evaluated the questionnaire’s face validity, which is the extent to which the items measure what they purport to measure, following changes. The lecturers were asked to fill out the questionnaire and comment on whether the questionnaire appeared to measure the intended construct and to assess the wording, layout, and ease of completion. The items from the literature were cross-examined with the managers who were interviewed as well as the participants in the focus group. One interviewee and the focus group of academics and researchers recommended the use of the present tense in the statements, as this survey is about consumers’ perceptions; therefore, the researcher employed the present tense in all the statements.

Table 4.13: Content Analysis Justification

Benefits	Limitations
<b>Flexibility of research design i.e. types of inferences</b>	Analyses the communication (message) only
<b>Supplements multi-method analyses</b>	Findings may be questionable alone, therefore, verification using another method may be required
<b>Wide variety of analytical application</b>	Underlying premise must be frequency related
<b>May be qualitative and/or quantitative</b>	Reliability – stability, reproducibility, accuracy of judges
<b>May be automated – improves, reliability, reduces cost/time</b>	Validity – construct, hypothesis, predictive and semantic
<b>Range of computer software developed</b>	Less opportunity to pre-test, discuss mechanism with independent judges
<b>Copes with large quantities of data</b>	Undue bias if only part data is analysed, possibly abstracting from context of communication
<b>Unobtrusive, unstructured, context sensitive</b>	Lack of reliability and validity measures reported, raising questions of credibility
Development of standards applicable to specific research, eg., negotiations	

Source: Harwood and Garry (2003, p. 493)

The academia and experts were satisfied with most of the items except for a few, such as the three items that the researcher used to measure brand personality. Brand personality is a hard to measure construct, and hence, many recommendations and suggestions were incorporated while designing the items to measure brand personality. Initially, the researcher used ‘original’ and ‘daring’ to measure brand personality, as these adjectives were taken from literature (Aaker, 1997), but according to the academics and experts, these items were not relevant to measuring brand personality in the context of this particular study, and they believe these three specific items did not represent the construct in this research context. Hence, the items were removed from the questionnaire.

Likewise, one item was removed from the questionnaire after the experts disagreed regarding the use of a specific item to measure perceived reputation in the study context, which the researcher initially selected from the literature. The item “I have a good feeling about the company” was suggested by Chun (2005). According to the academics and experts, this particular item measures the overall reputation of the retail/company regardless of whether it had adopted contactless technology to improve transaction experience.

Therefore, in total, four items were removed after content analysis based the recommendations of academics at the Business School of Middlesex University. Consequently, the pre-test items were verified for appearance by seven academics and for lexical correctness by three academics before the pilot testing of the questionnaire. The list of the constructs and the reduced number of items can be seen in Table 4.14.

Table 4.14: Number of Final Items for the Pre-Test

Constructs		No. of	Final items for pilot
		initial items	study
Transaction experience		38	38
<b>Transaction experience elements</b>	Perceived transaction speed	9	9
	Perceived transaction convenience	10	10
	Perceived transaction enjoyment	9	9
	Perceived transaction security	10	10
Transaction-specific satisfaction		11	11
Transaction-specific trust		12	12
Transaction-specific performance		11	11
Transaction-specific associations		10	10

Perceived reputation	13	12
Brand personality	12	9
Transaction-specific brand equity	13	13

Source: The Researcher

Malhotra and Birks recommended that a questionnaire be utilized in the following steps. A pilot test assists in the modification of the questionnaire such that respondents have no difficulty responding (Saunders et al., 2007), hence increasing the effectiveness of the study’s field survey. The pre-test study assisted in the development of the measurement instrument as well as in the modification of the measures to make them more reliable and valid.

A Likert-type scale was used for the majority of the items (anchored by 0, strongly disagree, and 7, strongly agree). Most respondents were consumers, with some being professionals, depending on their level of expertise in the topic. Using a Likert scale, respondents were asked to score their level of agreement or disagreement with a statement on their transaction experience. The Likert scale is the most extensively used scale in marketing research because it has strong response distribution characteristics and is easy to use (Bagozzi, 1994). Authors (Churchill and Peter, 1984; O’Neill and Palmer, 2004) have recommended by the number of scale points be increased in order to increase the construct variance and decrease the measurement error variation. Several of the items were altered in response to the quantitative data and purified scale provided by the questionnaire (see Table 4.15).

Table 4.15: Coding of the Measurement Items

Construct	Items wording	Items codes
<b>Perceived transaction speed</b>		
	I believe that using contactless payment will improve the speed of my transaction.	<b>PTS_1</b>
	I believe that using contactless payment will save me time.	<b>PTS_2</b>
	Compared to traditional payment methods, I believe that transactions will be faster if I pay with contactless.	<b>PTS_3</b>
	I am able to complete a transaction with contactless technology without spending too much time in the queue.	<b>PTS_4</b>
	Contactless payment lets me complete a transaction quickly.	<b>PTS_5</b>
	Using the contactless option will make my transaction productive.	<b>PTS_6</b>
	I believe speed is one of the most important elements during my transaction experience.	<b>PTS_7</b>
	It makes me happier if I can just ‘touch and go’ at the checkout.	<b>PTS_8</b>

	I believe that transactions will be slower if I pay with the contactless option.	<b>PTS_9</b>
<b>Perceived transaction convenience</b>		
	I believe that paying with contactless is convenient.	<b>PTC_1</b>
	It is more convenient to pay with my contactless card for my travel on the London underground and buses.	<b>PTC_2</b>
	I believe that using the contactless payment option will be hassle-free.	<b>PTC_3</b>
	Compared to traditional payment methods, I believe that the contactless payment method is much more convenient.	<b>PTC_4</b>
	I find it easy and simple to use contactless payment for my transactions.	<b>PTC_5</b>
	It takes little effort to pay with my contactless card during my transactions.	<b>PTC_6</b>
	Contactless payment makes my transaction experience smoother and more effective.	<b>PTC_7</b>
	I don't have to worry about receiving the wrong change when I am paying with contactless.	<b>PTC_8</b>
	I don't have to dig into my wallet for change when I am paying with contactless.	<b>PTC_9</b>
	Contactless payment is a lifesaver when I sometimes can't recall my pin.	<b>PTC_10</b>
<b>Perceived transaction enjoyment</b>		
	I enjoy making transactions using contactless payment.	<b>PTE_1</b>
	The actual process of using contactless payment is pleasant.	<b>PTE_2</b>
	I have fun while paying with contactless payment.	<b>PTE_3</b>
	I think contactless methods of payment are an interesting way of making payments.	<b>PTE_4</b>
	I believe that paying with contactless is playful.	<b>PTE_5</b>
	I experienced pleasure while paying with contactless.	<b>PTE_6</b>
	In my opinion, waiting in the queue for a shorter time is joyous.	<b>PTE_7</b>
	It makes me happy to be able to pay with contactless when I am in a rush.	<b>PTE_8</b>
	It makes me happy if someone in front of the queue pays with contactless.	<b>PTE_9</b>
<b>Perceived transaction security</b>		
	I consider that using contactless payment is secure.	<b>PTX_1</b>
	I don't think that the information transferred by using contactless technology can be intercepted by other people.	<b>PTX_2</b>
	I think contactless technology has mechanisms to ensure the safe transmission of its users' transaction information.	<b>PTX_3</b>
	I think contactless technology providers show great concern for the security of any transactions.	<b>PTX_4</b>
	I think contactless technology has enough security measures to protect my personal and financial information.	<b>PTX_5</b>
	I have confidence in the security of my transaction using contactless technology at certain retailers.	<b>PTX_6</b>
	Transaction security is a very important element during my transaction experience.	<b>PTX_7</b>
	I don't have to worry about anyone trying to see my PIN number while paying with contactless.	<b>PTX_8</b>
	I would only be confident with those retailers who would ensure that my transaction is safe and secure, each time during my transaction.	<b>PTX_9</b>

	I would only be confident with those retailers who would ensure that my transaction is fault free each time during my transaction.	<b>PTX_10</b>
<b>Transaction-specific satisfaction</b>		
	I was satisfied with my transaction experience the last time I made a contactless payment.	<b>TSS_1</b>
	I am happy with the way contactless payment works.	<b>TSS_2</b>
	I am pleased to shop in retailers where they accept contactless payments.	<b>TSS_3</b>
	I would recommend my friends and colleagues to visit those retailers who facilitate contactless purchases.	<b>TSS_4</b>
	I would choose a retailer with contactless payment option.	<b>TSS_5</b>
	Making transactions using contactless payment is exactly what I need when I am in a hurry.	<b>TSS_6</b>
	I prefer to pay contactless where possible during my future transactions.	<b>TSS_7</b>
	It makes me very happy to pay contactless, especially when I am rushing.	<b>TSS_8</b>
	Paying with contactless is an enjoyable experience.	<b>TSS_9</b>
	It makes me very happy to pay with contactless when I forget my PIN sometimes.	<b>TSS_10</b>
	I am not happy with the way contactless payment works.	<b>TSS_11</b>
<b>Transaction-specific trust</b>		
	Based on my experience in the past, I know the contactless payment process is trustworthy.	<b>TST_1</b>
	I believe that it is safe to use contactless cards for making transactions.	<b>TST_2</b>
	I believe that my transaction with contactless payment is likely to be safe with only some of the retailers whom I trust.	<b>TST_3</b>
	I can count on certain retailers for using contactless payment when I am in a hurry.	<b>TST_4</b>
	I think the contactless payment process is fast and reliable.	<b>TST_5</b>
	I think that the banks issuing contactless cards have a high integrity policy.	<b>TST_6</b>
	I will keep an ongoing habit of paying with contactless at retailers whom I trust.	<b>TST_7</b>
	Only certain trustworthy retailers will promptly inform me if any problems occur during my transaction with contactless payment.	<b>TST_8</b>
	I know the retailers who will give me full refund if there is an error during my transaction.	<b>TST_9</b>
	My level of trust of using a contactless transaction in a retail facility is based on my previous transaction experiences with that retailer.	<b>TST_10</b>
	In my opinion, younger customers are more confident to pay with contactless during their transaction than the older ones.	<b>TST_11</b>
	In my opinion, the younger generation have more trust in any new technology such as contactless payment than the older generation have.	<b>TST_12</b>
<b>Transaction-specific performance</b>		
	I can expect a superior performance with contactless payment from certain retailers.	<b>TSP_1</b>
	My transaction experiences with certain retailers using contactless payment options are trouble free.	<b>TSP_2</b>
	Contactless payment fits my lifestyle.	<b>TSP_3</b>



I feel comfortable making contactless transactions with certain retailers with whom I have experience.	<b>TSP_4</b>
Adopting contactless technology is likely to increase a retailer's overall performance.	<b>TSP_5</b>
If my bank didn't issue me a contactless card, I would rather switch my bank.	<b>TSP_6</b>
At some of the retail shops, where I often use contactless pay, has earned my confidence.	<b>TSP_7</b>
I prefer those retailers with whom I never experienced any faulty transaction.	<b>TSP_8</b>
I prefer those retailers who ensure that everything is working properly and accurately.	<b>TSP_9</b>
The staff at the checkout must be competent and careful to ensure that my transaction is safe.	<b>TSP_10</b>
The staff at the checkout must be competent and careful to ensure that my transaction is accurate.	<b>TSP_11</b>

### **Transaction-specific associations**

I can easily recognize which cards/tags issued by the banks can be used to pay contactless.	<b>TSA_1</b>
I can easily recognize which card readers/terminals installed by the retailers would accept contactless payment.	<b>TSA_2</b>
I am aware of those retailers who facilitate contactless technology for their customers.	<b>TSA_3</b>
Some characteristics of contactless payment method come to my mind quickly.	<b>TSA_4</b>
I can quickly recall the symbol or logo of contactless payment.	<b>TSA_5</b>
I like the retailers who accept contactless payment.	<b>TSA_6</b>
I think that the retailers who adapted contactless technology are very competitive and innovative.	<b>TSA_7</b>
I believe that the retailer that has contactless technology in place would be technically advanced.	<b>TSA_8</b>
I have in my mind which retailers always try to keep up with technological advancement such as contactless pay, Apple pay etc.	<b>TSA_9</b>
All the associations that I have in my mind are based on my past experience with them.	<b>TSA_10</b>

### **Perceived reputation**

My perception towards a retail facility is positive if it has contactless payment option in place.	<b>PR_1</b>
I admire the retail that has contactless payment method.	<b>PR_2</b>
I admire the banks that provide contactless cards to their customers.	<b>PR_3</b>
I believe that the queue management at the checkout can be well managed with contactless pay.	<b>PR_4</b>
I believe London Underground and Buses are well managed after they started accepting contactless payment.	<b>PR_5</b>
I think that some retails like M&S, Tesco, Superdrug and Royal mail have a good reputation in the market as they offer contactless payment option.	<b>PR_6</b>
I have grown to like those retailers who have adopted contactless technology more than any others who have not.	<b>PR_7</b>

	I intend to continue making purchases from those retailers who have contactless payment as an option over the next few years.	<b>PR_8</b>
	When I am in a hurry, I like to purchase using my contactless card.	<b>PR_9</b>
	I believe that the retailers who adapted contactless technology are innovative.	<b>PR_10</b>
	I believe that the retailers who adapted contactless technology have a good long-term future ahead.	<b>PR_11</b>
	If I had a positive perception about a retailer's reputation, I would recommend it to my friends and family.	<b>PR_12</b>
<b>Brand personality</b>		
	I can imagine contactless technology to have a personality like a human being.	<b>BP_1</b>
	I have a clear image of the type of person who would use contactless payment.	<b>BP_2</b>
	I think paying with a contactless card is interesting.	<b>BP_3</b>
	I perceive contactless technology to be reliable.	<b>BP_4</b>
	I perceive contactless technology to be professional.	<b>BP_5</b>
	I perceive contactless technology to be sophisticated.	<b>BP_6</b>
	I perceive contactless technology to be stylish.	<b>BP_7</b>
	If contactless technology were a human being, I would imagine it as a modern person.	<b>BP_8</b>
	If contactless technology were a human being, I would imagine it as an efficient person.	<b>BP_9</b>
<b>Transaction-specific brand equity</b>		
	I prefer to shop at a retailer that accepts contactless payment, than those who do not have it, even if they are of same type.	<b>TBE_1</b>
	I prefer to bank with one that provides me with a contactless card rather than with a bank that doesn't.	<b>TBE_2</b>
	It seems smarter to make a transaction with a contactless card.	<b>TBE_3</b>
	I was treated fairly the last time I was in touch with the bank that issued me the contactless card.	<b>TBE_4</b>
	The contactless payment option is definitely my first choice while making quick and small payments.	<b>TBE_5</b>
	I think that contactless technology is well established in London.	<b>TBE_6</b>
	If I trust a retailer, I prefer to make transactions from there more often.	<b>TBE_7</b>
	I would be a loyal customer to those retailers who have a better performance.	<b>TBE_8</b>
	I would admire a brand with a positive personality just as I would admire a person who has a good personality.	<b>TBE_9</b>
	I think that positive transaction-related associations are likely to add value to a retailer.	<b>TBE_10</b>
	If I fall in love with a brand or a technology like contactless, I get attached to it.	<b>TBE_11</b>
	If I fall in love with a brand or a technology like contactless, I recommend it to my friends and family.	<b>TBE_12</b>
	I would make transactions at a retailer even if I didn't trust them.	<b>TBE_13</b>

Source: The Researcher

#### 4.5.3.1 Quantitative Assessment

After qualitative assessment, the exploratory research revised the questionnaire in order to test the hypotheses. Then, based on recommendations by respondents, essential changes were made to the questionnaire for use in the actual survey (Gupta et al., 2011; Malhotra and Birks, 2000) to understand whether the constructs are valid and the measurement scales are reliable (Saunders et al., 2007).

##### 4.5.3.1.1 The Pilot study

It is necessary to conduct a pilot study (pre-test) in order to develop a questionnaire and measurement tool for the main survey (Malhotra and Birks, 2000). According to several researchers (Denscombe, 2007; Malhotra and Birks, 2000; Ticehurst and Veal, 2005), the pilot study aims to assess the significant requirements during instrument purification, e.g., testing wording, sequence, form and layout, and difficulty of questions and instructions, and assessing respondents' familiarity with the topic, the response rate, the questionnaire completion time, and the analysis process.

The purpose of undertaking a pilot study is to clarify the questionnaire so that there are no ambiguously formulated items (Welman and Kruger, 2001), respondents are able to answer the questions easily, and there are no problems in recording the data (Saunders et al., 2007). Respondents should have no difficulty in answering the questions (Saunders et al., 2007) in order to measure the timing and clarity of the survey and the reliability of the constructs, and to check for any manipulation (Malhotra, 1999). The pilot study was used to refine the measurement instrument and the modifications made to the measures to generate reliable and valid measures. It also helps the respondents to answer the questions without any problems (Saunders et al., 2007).

Between January and March of 2019, surveys for the pilot test were distributed. Eighty questionnaires were completed before the deadline. Because of insufficient data and the low response quality, 30 surveys were eliminated from consideration. Thus, a total of 50 surveys were collected. The demographics of the pre-test sample are shown in Table 4.16. After that, testing and piloting of the questionnaire was conducted. For the purpose of testing the survey's design, Malhotra and Birks (2000) advocated using a modest sample size of 20 to 40 participants (Malhotra and Birks, 2000). A total of 50 academics and consumers participated in the pilot study of the questionnaire (anyone who had knowledge of contactless payment). Participants in the pilot study were not invited to participate

in the final study as it could have an impact on their behaviour if they had already been involved in the pilot study (Haralambos and Holborn, 2000).

Table 4.16: Demographic Profile of Respondents Pre-Test Sample (N=50)

Sample size (N)		N	%
Age	15 to 20 years	1	2
	20 to 25 years	10	20
	25 to 30 years	17	34
	30 to 35 years	9	18
	35 to 40 years	6	12
Gender	40 to 45 years	3	6
	45 to 50 years	2	4
	55 to 60 years	1	2
Occupation	60 to 65 years	1	2
	Total	50	100
	Male	26	52
	Female	24	48
	Total	50	100
	<b><u>I am currently employed</u></b>		
	Top executive/Manager	1	2
	Owner of a company	2	4
	Lawyer, dentist or architect etc.	2	4
	Banker	1	2
	Retail Worker	2	4
	Office/clerical staffs	10	20
	Bus driver/London Underground staff	0	0
	<b><u>I am not employed</u></b>		
	Student	3	6
	Housewife	2	4
	Retired	4	8
	Other	23	46
	Total	50	100

Source: The Researcher

In the purification process of the instrument, 50 questionnaires were collected to assess the 1) validity and 2) reliability to ensure that “measures are free from the error and therefore yield consistent results” (Peter, 1979, p. 6). Reliability extends to whether a set of variables is consistent for what it is intended to measure, and it was assessed via Cronbach’s alpha (Cronbach, 1951). According to Melewar (2001), before conducting the main survey, it is important that “the measures used are developed and investigated for the reliability” (p. 38). Reliability is a necessary precondition of validity. However, the scale showed a high degree of reliability, with a Cronbach’s alpha of 0.86. Table 4.17 presents the results of the reliability testing. Hair et al. (1998) suggested that a coefficient alpha of larger than 0.70 is particularly appropriate for most research purposes (De Vaus, 2002; Hair et al., 2006; Nunnally, 1978; Palmer, 2011).

Table 4.17: Reliability Measures Post Pilot Study

Items	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach’s Alpha if Item Deleted	Cronbach’s Alpha
PTS_1	6.40	0.728	0.408	0.687	0.711
PTS_2	6.52	0.646	0.539	0.665	
PTS_3	6.58	0.642	0.482	0.677	
PTS_4	5.78	1.718	0.548	0.682	
PTS_5	6.42	0.642	0.584	0.657	
PTS_6	5.48	1.282	0.471	0.667	
PTS_7					deleted
PTS_8					deleted
PTS_9					deleted
Items	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach’s Alpha if Item Deleted	Cronbach’s Alpha
PTC_1	6.24	0.822	0.516	0.712	0.746
PTC_2	6.34	0.961	0.379	0.730	
PTC_3	5.96	1.124	0.465	0.717	
PTC_4	6.18	0.774	0.517	0.713	
PTC_5	6.44	0.611	0.668	0.705	
PTC_6	5.88	1.409	0.432	0.730	
PTC_7	6.12	0.824	0.404	0.727	
PTC_8	6.28	0.948	0.261	0.747	
PTC_9	6.36	0.663	0.653	0.703	
PTC_10	6.26	1.006	0.117	0.769	

<b>Items</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>	<b>Cronbach's Alpha</b>
PTE_1	6.14	0.904	0.499	0.778	0.797
PTE_2	6.06	0.867	0.492	0.779	
PTE_3	5.66	1.171	0.739	0.742	
PTE_4	5.88	1.118	0.605	0.761	
PTE_5	5.16	1.503	0.492	0.780	
PTE_6	5.30	1.389	0.491	0.778	
PTE_7	5.54	1.460	0.263	0.815	
PTE_8	6.42	0.785	0.369	0.791	
PTE_9	5.90	1.093	0.596	0.763	
<b>Items</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>	<b>Cronbach's Alpha</b>
PTX_1	5.36	1.575	0.777	0.809	0.848
PTX_2	5.38	1.563	0.717	0.816	
PTX_3	5.38	1.323	0.702	0.819	
PTX_4	5.42	1.500	0.760	0.811	
PTX_5	5.48	1.581	0.772	0.809	
PTX_6	5.64	1.174	0.622	0.828	
PTX_7	6.50	0.814	0.146	0.860	
PTX_8	6.34	0.798	0.300	0.851	
PTX_9	6.36	0.693	0.329	0.850	
PTX_10	6.00	0.881	0.144	0.861	
<b>Items</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>	<b>Cronbach's Alpha</b>
TSS_1	6.44	0.644	0.460	0.823	0.831
TSS_2	6.24	0.938	0.618	0.808	
TSS_3	6.26	1.046	0.736	0.795	
TSS_4	6.04	1.309	0.752	0.790	
TSS_5	5.82	1.438	0.632	0.807	
TSS_6	6.52	0.544	0.691	0.813	
TSS_7	6.30	1.055	0.698	0.799	
TSS_8	6.52	0.614	0.743	0.808	
TSS_9	6.00	1.107	0.696	0.798	
TSS_10	6.34	0.745	0.435	0.823	
TSS_11	1.92	1.027	-0.436	0.892	

Items	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
TST_1	5.74	1.175	0.654	0.840	0.859
TST_2	5.56	1.296	0.618	0.842	
TST_3	5.18	1.289	0.668	0.838	
TST_4	5.26	1.736	0.533	0.851	
TST_5	6.02	1.059	0.659	0.841	
TST_6	5.38	1.354	0.691	0.836	
TST_7	5.84	1.346	0.740	0.832	
TST_8	5.24	1.408	0.661	0.838	
TST_9	5.70	1.374	0.493	0.851	
TST_10	5.86	1.161	0.301	0.862	
TST_11	6.16	0.817	0.188	0.865	
TST_12	6.26	0.777	0.118	0.867	
Items	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
TSP_1	5.60	1.069	0.484	0.828	0.839
TSP_2	5.76	1.021	0.362	0.837	
TSP_3	5.96	1.124	0.629	0.816	
TSP_4	5.96	0.880	0.718	0.813	
TSP_5	5.80	1.010	0.530	0.825	
TSP_6	4.92	1.872	0.496	0.843	
TSP_7	5.48	1.266	0.643	0.813	
TSP_8	5.82	0.962	0.497	0.827	
TSP_9	6.00	0.881	0.503	0.827	
TSP_10	6.20	0.833	0.568	0.824	
TSP_11	6.22	0.840	0.500	0.828	
Items	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
TSA_1	6.14	0.969	0.626	0.849	0.865
TSA_2	5.92	1.192	0.426	0.866	
TSA_3	5.70	1.344	0.552	0.857	
TSA_4	5.86	1.143	0.691	0.843	
TSA_5	6.38	0.725	0.593	0.855	
TSA_6	6.36	0.827	0.408	0.864	
TSA_7	6.28	0.927	0.696	0.845	
TSA_8	6.24	0.938	0.675	0.846	

TSA_9	5.96	1.324	0.600	0.852	
TSA_10	5.96	1.245	0.649	0.847	
Items	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
PR_1	5.76	1.001	0.641	0.908	0.914
PR_2	5.94	0.935	0.846	0.901	
PR_3	5.96	0.968	0.630	0.909	
PR_4	5.90	1.165	0.718	0.905	
PR_5	5.98	1.518	0.374	0.925	
PR_6	5.84	1.283	0.701	0.905	
PR_7	5.98	1.097	0.776	0.902	
PR_8	5.78	1.418	0.784	0.901	
PR_9	6.42	0.928	0.683	0.907	
PR_10	6.04	0.925	0.692	0.907	
PR_11	5.70	1.313	0.614	0.910	
PR_12	5.88	1.256	0.637	0.908	
Items	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
BP_1	5.02	1.584	0.330	0.810	0.804
BP_2	4.84	1.608	0.598	0.770	
BP_3	5.86	1.010	0.309	0.805	
BP_4	5.66	1.022	0.403	0.796	
BP_5	5.70	0.863	0.557	0.784	
BP_6	5.30	1.418	0.479	0.787	
BP_7	5.64	1.225	0.720	0.758	
BP_8	5.48	1.594	0.723	0.750	
BP_9	5.56	1.500	0.452	0.791	
Items	Mean	Std. Deviation	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
TBE_1	5.30	1.887	0.822	0.855	0.879
TBE_2	5.52	1.529	0.687	0.863	
TBE_3	6.04	1.177	0.438	0.877	
TBE_4	6.10	1.035	0.508	0.873	
TBE_5	6.34	0.939	0.527	0.873	
TBE_6	6.32	0.794	0.214	0.884	
TBE_7	6.20	1.088	0.789	0.860	
TBE_8	6.32	0.913	0.516	0.873	



TBE_9	6.10	0.974	0.605	0.869
TBE_10	6.12	1.003	0.663	0.867
TBE_11	5.96	1.309	0.889	0.851
TBE_12	5.80	1.309	0.824	0.855
TBE_13	2.18	1.190	-0.123	0.904

Source: Analysis of pilot survey data (SPSS file)

The above table presents the results of a scale purification through reliability and validity analysis. The first step was to execute reliability analysis using Cronbach's alpha. When the calculated coefficient was below 0.700, the items showing lower than 0.400 for 'Corrected Item-Total Correlation' were excluded. Only the items PTS\_7, PTS\_8 and PTS\_9 was excluded at this stage. The alpha values for all the other scales were above 0.700. The resulting coefficients are shown in Table 4.17 above.

Reliability testing was performed to see whether or not the constructs, particularly the revised items, would yield favourable findings and "provide consistent data" (McDaniel and Gates, 2006, p. 222). This stage is critical because it involves examining how the respondents reacted to the survey questions/items that are related to conceptual framework structures. In certain circles, the questionnaire is sometimes referred to as an investigation of psychometric traits (Churchill, 1979; Hair et al., 2006). Items PTS 7, PTS 8, and PTS 9 were excluded from consideration.

The components from the previous phase were inserted into the exploratory factor analysis technique used in this step. Each scale was subjected to PCA analysis in order to seek for cross-loadings. In their paper, Hair et al. (2006) suggested an 'Eigenvalue greater than 1' condition (2014). Following that, the coefficients for cross-loadings were calculated (loading on more than 1 factor). If one item presented loadings higher than 0.400 on more than one factor, this item was excluded.

Additionally, if the item showed a substantially higher loading on any secondary factor, meaning that the item was not measuring the same concept as the other items, it was also excluded. After excluding these items (when appropriate), the procedure was executed again. The next table (Table 4.18) presents the final set of items for each scale, along with final factor loadings, mean, standard deviation, and final Cronbach's alpha, among other indicators.

Table 4.18: Exploratory Factor Analysis on the Basis of the Pilot Study

Items	Factor Loadings	M	SD	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
PTS_1	0.901	6.52	0.646	0.858	0.801	0.651	0.779	PTS_4, PTS_6
PTS_2	0.841	6.40	0.728		0.704	0.539	0.821	
PTS_3	0.837	6.58	0.642		0.700	0.507	0.821	
PTS_5	0.775	6.42	0.642		0.618	0.391	0.853	
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
PTC_1	0.675	6.24	0.822	0.750	0.485	0.317	0.715	PTC_6, PTC_7, PTC_8, PTC_10
PTC_2	0.512	6.34	0.961		0.373	0.159	0.751	
PTC_3	0.624	5.96	1.124		0.456	0.293	0.738	
PTC_4	0.716	6.18	0.774		0.526	0.479	0.705	
PTC_5	0.850	6.44	0.611		0.674	0.639	0.683	
PTC_9	0.753	6.36	0.663		0.587	0.481	0.697	
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
PTE_1	0.743	6.14	0.904	0.808	0.577	0.427	0.777	PTE_5, PTE_6, PTE_7, PTE_8
PTE_2	0.670	6.06	0.867		0.501	0.335	0.797	
PTE_3	0.850	5.66	1.171		0.727	0.585	0.725	
PTE_4	0.740	5.88	1.118		0.584	0.417	0.774	
PTE_9	0.753	5.90	1.093		0.597	0.411	0.770	
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
PTX_1	0.880	5.36	1.575	0.910	0.817	0.699	0.883	PTX_7, PTX_8, PTX_9, PTX_10
PTX_2	0.817	5.38	1.563		0.733	0.665	0.896	
PTX_3	0.809	5.38	1.323		0.724	0.582	0.897	
PTX_4	0.865	5.42	1.500		0.793	0.683	0.887	
PTX_5	0.888	5.48	1.581		0.827	0.730	0.881	
PTX_6	0.713	5.64	1.174		0.608	0.490	0.912	
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
TSS_2	0.836	6.24	0.938	0.890	0.732	0.701	0.868	

TSS_3	0.925	6.26	1.046		0.886	0.839	0.840	TSS_1,
TSS_4	0.753	6.04	1.309		0.678	0.527	0.891	TSS_5,
TSS_6	0.836	6.52	0.544		0.721	0.766	0.883	TSS_9
TSS_7	0.805	6.30	1.055		0.741	0.657	0.866	TSS_10,
TSS_8	0.858	6.52	0.614		0.746	0.779	0.877	TSS_11
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
TST_1	0.840	5.74	1.175	0.880	0.737	0.736	0.855	TST_4,
TST_2	0.847	5.56	1.296		0.749	0.741	0.852	TST_8,
TST_3	0.649	5.18	1.289		0.550	0.356	0.877	TST_10,
TST_5	0.844	6.02	1.059		0.754	0.647	0.855	TST_11,
TST_6	0.843	5.38	1.354		0.745	0.643	0.852	TST_12
TST_7	0.798	5.84	1.346		0.728	0.598	0.854	
TST_9	0.544	5.70	1.374		0.449	0.323	0.892	
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
TSP_3	0.733	5.96	1.124	0.812	0.564	0.572	0.786	TSP_1,
TSP_4	0.873	5.96	0.880		0.774	0.730	0.746	TSP_2,
TSP_5	0.648	5.80	1.010		0.500	0.433	0.799	TSP_6,
TSP_7	0.759	5.48	1.266		0.631	0.435	0.772	TSP_10,
TSP_8	0.680	5.82	0.962		0.521	0.448	0.794	TSP_11
TSP_9	0.646	6.00	0.881		0.508	0.286	0.797	
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
TSA_1	0.694	6.14	0.969	0.842	0.563	0.383	0.826	TSA_2,
TSA_4	0.716	5.86	1.143		0.605	0.437	0.821	TSA_3,
TSA_5	0.706	6.38	0.725		0.561	0.405	0.830	TSA_6,
TSA_7	0.864	6.28	0.927		0.747	0.734	0.792	TSA_9.
TSA_8	0.815	6.24	0.938		0.682	0.714	0.804	
TSA_10	0.736	5.96	1.245		0.629	0.507	0.819	
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
PR_1	0.742	5.76	1.001	0.921	0.664	0.652	0.915	PR_5, PR_9
PR_2	0.905	5.94	0.935		0.863	0.847	0.906	

PR_3	0.745	5.96	0.968		0.660	0.680	0.915	
PR_4	0.714	5.90	1.165		0.647	0.560	0.916	
PR_6	0.761	5.84	1.283		0.709	0.683	0.912	
PR_7	0.854	5.98	1.097		0.811	0.789	0.907	
PR_8	0.831	5.78	1.418		0.784	0.696	0.908	
PR_10	0.805	6.04	0.925		0.740	0.711	0.912	
PR_11	0.720	5.70	1.313		0.649	0.611	0.916	
PR_12	0.662	5.88	1.256		0.599	0.463	0.919	
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
BP_2	0.667	4.84	1.608	0.765	0.469	0.297	0.778	BP_1,
BP_5	0.707	5.70	0.863		0.486	0.311	0.762	BP_3,
BP_7	0.903	5.64	1.225		0.778	0.616	0.603	BP_4,
BP_8	0.838	5.48	1.594		0.640	0.502	0.669	BP_6 BP_9
Items	Factor Loadings	M	Std. Deviation	Cronbach's Alpha	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Items Deleted
TBE_1	0.838	5.30	1.887	0.915	0.770	0.648	0.916	TBE_2, TBE_3, TBE_4, TBE_5, TBE_6, TBE_8, TBE_13
TBE_7	0.863	6.20	1.088		0.794	0.672	0.897	
TBE_9	0.804	6.10	0.974		0.704	0.629	0.909	
TBE_10	0.814	6.12	1.003		0.727	0.620	0.906	
TBE_11	0.930	5.96	1.309		0.896	0.826	0.879	
TBE_12	0.894	5.80	1.309		0.845	0.762	0.887	

Source: Analysis of pilot survey data (SPSS file)

A reliability test analyses the same respondent's score on the same measurement item at two different points in time (test-retest) to determine how reliable the measurement item is (Ticehurst and Veal, 2005). The precision and consistency of measurements are improved, and the bias (error-free) repeatability of measuring instruments is avoided across samples and time horizons as a result of improved reliability.

Among several statistical methodologies for assessing dependability, Cronbach's coefficient is the most widely acknowledged and the most straightforward to calculate (Cronbach, 1951; Nunnally, 1978; Tabachnick and Fidell, 2007). Based on the reliability test, items PTS\_7, PTS\_8, and PTS\_9 were deleted as shown in Table 4.17, and based on EFA analysis, items PTS\_4, PTS\_6, PTC\_6, PTC\_7, PTC\_8, PTC\_10, PTE\_5, PTE\_6, PTE\_7, PTE\_8, PTX\_7, PTX\_8, PTX\_9, PTX\_10, TSS\_1, TSS\_5, TSS\_9, TSS\_10, TSS\_11, TST\_4, TST\_8, TST\_10, TST\_11, TST\_12, TSP\_1, TSP\_2, TSP\_6, TSP\_10, TSP\_11, TSA\_2, TSA\_3, TSA\_6, TSA\_9, PR\_5, PR\_9, BP\_1, BP\_3, BP\_4, BP\_6, BP\_9, TBE\_2, TBE\_3, TBE\_4, TBE\_5, TBE\_6, TBE\_8, and TBE\_13 were deleted as shown in Table 4.18. Hence the questionnaire design was finalised with 66 items for the main survey.

## **4.6 THE MAIN SURVEY**

After the pilot study, the third phase of this research involved the main survey. This is known to be the most significant element in creating a valid and reliable scale (Foroudi, 2012). For conducting the main survey, a self-administered questionnaire was designed to collect data from consumers. The data were collected from different retail (food, clothing, accessories etc.) stores from various parts of London, where they have contactless payment options in operation. The study used a convenience sampling technique, and in certain places, a snowball sampling technique was also used to gather more data (Leighton et al., 2021; Van Haute, 2021). The survey was more challenging than normal due to the pandemic.

### **4.6.1 The Target Population and Sampling**

Sampling strategies are employed to generate statistics and generalise the findings to a larger population: "The segment of population that is selected for investigation is defined as the sample" (Bryman and Bell, 2007, p. 182). The larger group of which the sample is a subset is called the 'research population'.

A sample is known as a set of elements selected from a population (Malhotra and Birks, 2000) which represents the main area of research and is acknowledged to have a high external validity (Churchill, 1999). Sampling should clearly and accurately define the population to avoid any sample design bias for sampling frame error, population specification error, and selection error (McDaniel and Gates, 1993). The characteristics of the respondents, such as age, gender, and profession, were asked in the questionnaire. Bryman and Bell (2007) defined a population as the universe of units from which the sample is to be selected. The term 'units' is employed because it is not necessarily people who are

being sampled; the researcher may want to sample from a universe of nations, cities, regions, firms, etc. Thus, 'population' has a much broader meaning than the everyday use of the term, whereby it tends to be associated with a nation's entire population. (p. 182)

Most studies require data from a large and varied population size, and researchers often do not cover the entire population. The usual practice is to use a sample from the target population. Salant and Dillman (1994) defined a population sample as a group of respondents selected for a survey of a larger population. The main reason for sampling is to save time and money. However, the population sample must be representative so that the researcher can draw conclusions or generalizations from the sample statistics about the study population. The sample survey offers the possibility of obtaining essential information from a relatively small number of respondents to explain the characteristics of the general population.

If the sample size is small, there is a lack of precision in providing reliable answers to the established study questions. However, if the sample is large, time and resources can be lost, often with minimal benefit. For each study, the sample size for the investigation should be determined during the study design phase. Salant and Dillman (1994) stated that the sample must be determined by four main factors: 1) how much sampling error can be tolerated, 2) population size, 3) how diverse the population is in terms of the traits of interest, and 4) the smallest subset within the sample for which estimates are required.

Bryman and Bell (2007) classified two main sampling methods: probability, and non-probability sampling. Probability sampling is a sample that has been selected using random selection so that each unit in the population has a known chance of being selected. It is generally assumed that a representative sample is more likely to be the outcome when this method of selection from the population is employed. The aim of probability sampling is to keep sampling error to a minimum. (p. 182). However, in certain types of research, it is vital that certain units be included in the sample. This is thus the most obvious advantage in non-probability sampling, as it clearly has the ability to target particular groups of the population (Bryman and Bell, 2007). Non-probability methods also have the advantage in typically being less expensive to conduct. Savings, in terms of both money and time, can be achieved (Schreuder et al., 2001).

A non-probability sample can be defined as "a sample that has not been selected using a random selection method. Fundamentally, this implies that some units in the population are more likely to be

selected than others” (Bryman and Bell, 2007, p.182). This study is mainly based on a ‘convenience’ and to some extent ‘snowball’ sampling, which is considered as a non-random sampling technique. Bryman and Bell (2007) suggested that “in the field of business and management, convenience samples are very common and indeed are more prominent than are samples based on probability sampling” (p. 198).

For this study, a representative sample was chosen from the population. According to previous researchers (Bryman and Bell, 2007; Foroudi, 2012; Leighton et al., 2021; Malhotra, 2010; Van Haute, 2021), the sample should be drawn from a representative population to allow researchers to make inferences or generalisations from the sample statistics to the wider population being studied. The sample chosen for this study included residents of London who had basic knowledge or experience of contactless payment.

The age, gender, and profession of the sample varied; as London has a mixed cultural background, the sample was a reflection of the larger population of the UK. People from diverse cultural backgrounds as well as different ages and professions were considered as participants to ensure that the sample truly represented the population of London, and to avoid biased results based on sampling frame error, population specification error and selection error. The characteristics of the respondents, such as their age, gender, and profession, were clearly asked and the details included in the questionnaire, so that it could be clarified from the sample that it reflected and represented the overall population.

For the purpose of sampling, a non-probability convenience sampling method was used. Convenience sampling can be defined as the method that is available to the researcher by virtue of its accessibility (Bryman and Bell, 2007; Van Haute, 2021): “Convenience samples are more common and indeed are more prominent than those based on probability sampling” (Bryman and Bell, 2007, p. 196). The reason for using a non-probability convenience sampling technique is that it is one of the easiest ways of gathering data and represents and, at the same time, it can be an efficient use of time and resources.

The only drawback of the convenience sampling method is that some units in the population are more likely to be selected than others. Therefore, in addition to convenience sampling, the snowball sampling technique was also used. Snowball sampling is known as the non-probability sampling technique in which the researcher makes initial contact with a small number of people who are relevant to the research topic, and then uses them to gather data from the others (Bryman and Bell, 2007, Van Haute, 2021).

The data collection was accomplished with the help of different methods. It was a significant challenge to collect data in person during the pandemic when social distancing became a major issue and there were fewer people outside. Due to social distancing issues, panics, and other Covid-related challenges, the data collection took longer than usual. Although there were few opportunities for face-to-face data collection, but mainly, the respondents were contacted via email, social media, and other survey tools online. In addition, an online Google version (Google Form) of the questionnaire was designed, and the link was sent through the online and social media (i.e., emails, Facebook, and Twitter). Mainly due to travel restrictions, the few items of data that were collected face-to-face were from people in the local area by directly approaching individuals who were willing to participate.

Data were collected from retail stores, outside communal libraries, shopping centres, university libraries, and bus/train stations, etc. In addition to convenience sampling, the non-probability snowballing technique was also carried out specially to overcome the challenges faced by the pandemic. This included collecting data from friends and work-colleagues and allowing them to suggest others who had knowledge or experience of contactless payment and would be willing to participate (Andriopoulos and Lewis, 2009; Leighton et al., 2021).

Data collection initially started in April 2020 but due to the pandemic reaching its peak point, it needed to be suspended for several months, resuming in March 2021 till the end of June 2021. The questionnaire was divided into two sections. The first section contained 15 sub sections with 69 individual mandatory questions and 3 optional questions. The second section contained the demographic questions. The questionnaire was designed to gather the opinions and perceptions of consumers' transaction experiences with contactless technology. In addition, they were asked to present their perceptions of the transaction-specific outcomes, such as transaction-specific satisfaction, transaction-specific trust, transaction-specific performance, transaction-specific associations and transaction-specific brand equity, along with their perceptions of perceived reputation and brand personality.

Participants were also asked demographic questions, such as age, gender, and profession. The front page of the questionnaire included a cover page, which indicated the aim and objectives of the research, the voluntary participation of the individuals, and the privacy of the records. The remaining pages were based on the abovementioned questions, i.e., consumers' perceptions and their demographics. Approximately 600 questionnaires were distributed, including e-questionnaires and Google Forms, of



which 500 were used for the research. The remaining 100 questionnaires were discounted either because they were not completely filled in or because of confusing responses (unreadable or double response). Later on, after the quantitative analysis another 100 were dropped due to data normality issues and outliers' problems. Hence, all the tests were undertaken again and the quantitative analysis was carried out all over again with 400 sample size. The number of samples was chosen based on the sampling criteria, which included number of items, constructs, multi-group data, structural equation modelling (SEM), and 5 percent of predicted missing data based on the results from the pilot study.

#### **4.6.2 Number of Participants Appropriate for the Study**

Choosing and selecting a suitable number of participants for a survey can be very challenging, time-consuming, and tricky. The main technique should consider and be based on the data analysis techniques, time, and cost (Hair et al., 2006; Bryman and Bell, 2007). Bryman and Bell (2007) suggested that sampling should be based on five key points as follows:

- (i) Size – it is one of the most basic considerations, as a national probability sample size of 1,000 individuals would have a higher validity. Moreover, researchers need to decide how much sampling error they are willing to ignore because as the sample size increases, the sample error decreases.
- (ii) Time and cost – this is likely to profoundly affect considerations of sampling size, since striving for smaller and smaller increments of precision becomes an increasingly uneconomic proposition.
- (iii) Non-response – this is something most sample surveys experience, making it likely that this will affect some of the sample chosen for this study.
- (iv) Population heterogeneity – this affects the size of the sample; if the heterogeneity of the population is high, then using a larger sample is preferred.
- (v) Type of research –if the research topic is wide, the researcher should use a larger sample size than when the topic is narrow.

Bryman and Bell (2007) and Roscoe (1975) also provided simple rules of thumb for selecting the appropriate sample size based on an analysis of acceptable confidence levels in behavioural research studies (Foroudi, 2012, p. 156). Roscoe (1975) noted four general points to be considered at the time of selecting the sample size as follows:

- (i) Sample sizes between 30 and 500 are appropriate for most research studies.
- (ii) If the data are coming from more than one group (i.e., each segment of age or gender), then it is necessary to involve more than 30 respondents for each group.
- (iii) If the researcher is using multivariate analysis, then the size of the sample should be 10 times higher than the number of variables.
- (iv) If the researcher is conducting a simple experiment, then the size of the sample should be between 10 and 20 respondents.

According to Comrey and Lee (1992), a sample size of 50 is very poor, 100 is poor, 200-299 is fair, 300-499 is good, more than 500 is very good, and close to or above 1,000 is excellent.

Hair et al. (2006) and Malhotra (2007) also mentioned five points that could affect the sample size in SEM to obtain reliable estimates. These five points are as follows:

- (i) In the case of non-normal data, the ratio of respondents to each parameter should be high.
- (ii) If the maximum likelihood or SEM methods are used, the sample size should be 150-400 respondents.
- (iii) Based on the model's complexity, if the structure equation model has five or fewer constructs, the sample size should be 100-150; if each construct has more than three items and the item communalities are higher (higher than 0.6), then the sample size should exceed 200; and finally, if there are more than six constructs in the model and each construct is measured by more than three items and has low communalities, then the sample size should exceed 500.
- (iv) If it is expected that more than 10 per cent of the data will be missing, there should be an increase in the sample size.
- (v) Larger sample sizes are required when the communalities are smaller than 0.5.

Based on these discussions, it was evident that there is not any fixed sample size, but still there were assumptions which guided the researcher in this study to choose a sample size of more than 500. These assumptions were as follows: SEM was used, there were 12 constructs involved in the study, each

construct had more than five items, the communalities items were modest (i.e., over 0.50), there were multigroup data (i.e., moderators and mediators), and based on the results from the pilot study, it was expected that more than 5% of the data could be missing. Taking into consideration these reasons, a sample size of more than 500 was used for this research. Hence, a sample size of 550 respondents was selected in this study, and 500 cases were used for the analysis purposes.

#### **4.7 DESIGNING OF THE QUESTIONNAIRE**

For the purpose of the survey, a refined questionnaire was designed taking into account all the refined data from the pilot study. However, it was still quite similar to the one used for the pilot study. It started with a covering letter on the front cover to increase the response rate (Schaefer and Dillman, 1998). The front sheet contained the general instructions for the fieldworkers, and a guarantee of confidentiality was also given. This new questionnaire after the pilot study had 10 pages, and 2 sections.

The first section had 12 sub sections with a total of 70 close-ended questions (multiple choice) on each of the constructs being studied (12 constructs were being studied). In addition, the first section consisted of another three open-ended optional questions to gain further insight into the focal construct (transaction experience). The second part consisted of the demographic information of the respondents. In this section, there were three closed-ended questions asking for information about the respondents' gender, age, and profession. The questions were kept as simple and clear as possible, so the respondents could easily understand them, and the study could be fully focused on the research topic (Bryman and Bell, 2007). The questionnaire layout was tested by expert judges.

To answer the research questions (closed-ended ones), a Likert scale was used. Likert scales in marketing research are normally used to measure respondents' attitudes by means of agreeing or disagreeing with a certain object, activity, or situation etc. (Bryman and Bell, 2007). As mentioned earlier, a 7-point Likert scale was used for this research (anchored by 0, 'strongly disagree', to 7, 'strongly agree'). This type of scale was designed by Churchill et al. (1984) to increase construct variance and decrease measurement error variance. As stated above, respondents were also asked some open-ended questions where they could write as much as they wished to express deeper feelings and thoughts. Since the data collection was undertaken in the light of contactless technology, the first question in the questionnaire asked if the respondents knew about contactless payment or had used it at least once in their lifetime. this was a screening question for the respondent to continue to answer further questions.

#### **4.8 DATA ANALYSIS TECHNIQUES**

Data analysis was carried out in three stages. Initially in the first stage, the content and the scales were refined on the basis of information collected from the qualitative and quantitative data. Then in the second stage, scales were validated based on the quantitative data from the main survey. And the final stage was to test the final model. In order to increase the reliability and decrease the measurement error, a multi-item scale development was used for each construct (Churchill, 1979). Churchill (1979) suggested using multi-item scales instead of single-item scales. Hence, data analysis for this study was undertaken using a triple approach. Each of the stages are outlined below:

i) At first, an exploratory factor analysis was undertaken during the pilot study and in the main study, to reduce the number of items and identify any pattern in the data (Tabachnick and Fidell, 2007). The coefficient alpha tested the quantitative data gathered from the collected data which helped in assessing the reliability of the scale and the quality of the instrument (internal consistency) (Churchill, 1979; Peter, 1979; Parasuraman et al., 1998).

ii) Thereafter, confirmatory factor analysis (CFA) was carried out on the main survey data to evaluate the measurement properties of the existing scales' validity (Hair et al., 1998). CFA is considered as a useful tool in checking whether the scales needed to be constructed for additional examination in structural modelling and whether it could be applied to confirm the theory of the latent variables (Hair et al., 1998).

iii) Then, finally, structure equation modelling (SEM) was undertaken, to test the hypotheses (Hair et al., 2006) and to avoid possible connections among structural models and measurements.

In the initial stage of data analysis involved SPSS 26.0 (Statistical Package for Social Sciences). The use of SPSS 26.0 has been verified by many researchers (Bratianu et al., 2021; Field, 2009; Rahim et al., 2021; Tabachnick and Fidell, 2007). There was a good number of reasons to why SPSS was used in the initial stage of data analysis (Norusis, 1999; 1993): firstly, it is a useful tool in coding, editing, and checking the missing data; secondly, it is quite reliable in checking the assumptions of normality, linearity, multi-collinearity, and outliers (skewness and kurtosis were examined for normal data distribution); thirdly, it is well known for demonstrating the central tendency and dispersions of the variables, the mean, the standard deviation, and for analysing frequencies; fourthly, for exploratory factor analysis, descriptive analysis was executed using an overview of the sample (Foroudi, 2012; Tabachnick and Fidell, 2007). Furthermore, it is widely used for reliability test which assess the

validity and reliability of the instruments (Churchill, 1979; Peter, 1979); the refinement is based on reliability and dimensionality. The reason for the test was to assess the scales which were used to measure the constructs and thus refine the measures (Churchill, 1979).

Partial least squares (PLS) is a statistical package software to analyse SEM, to perform CFA, and to evaluate the conceptual model. Smart PLS 3.3.5 is a unique graphical interface, which was used to determine the attribute of the proposed measurement model and hypothesised structural model. Additionally, it was used to perform the confirmatory factor analysis (CFA) and structural model (Byrne, 2001; Hair Jr et al., 2021). In the following sections, exploratory factor analysis (EFA), coefficient alpha, confirmatory factor analysis (CFA) and structural equation modelling (SEM) for model evaluation are discussed. The rationale for the selection of these techniques is also stated below.

#### **4.8.1 Exploratory Factor Analysis (EFA) and Coefficient Alpha**

Exploratory factor analysis (EFA) is an important and helpful technique for determining the early stages of the scale validity (Aaker, 1997; Foroudi, 2013; Goretzko et al., 2021; Netemeyer et al., 2003; Watkins, 2021). It is known as data-driven (exploratory approach) and is a practical scale. This helps to reduce the numbers of observed variables (indicator) to a smaller and more controllable set (Anderson and Gerbing, 1988; Chandon et al., 1997; Foroudi, 2013; Goretzko et al., 2021; Hair et al., 1998).

Hair et al. (1998) claimed that EFA ensures “any individual factor should account for the difference of at least one single variable” (p. 103). Moreover, it helps to acknowledge factors that are independent of each other in order which helps in understanding the structure of a specific field (Hair et al., 1998). EFA is mainly used to explore the data and provide information about the number of possible factors that best represent the data (Hair et al., 2006) and very useful as an initial analytical technique to prepare data for SEM (Goretzko et al., 2021; Steenkamp and Trijp, 1991).

The items for each construct were assessed before the factor analysis and reliability test were performed. EFA was performed for this study both in the pilot and in the main study so as to reduce the number of items and to identify any pattern in the data (De Vaus, 2002; Tabachnick and Fidell, 2007). It helps in exploring the data and identifies the factors that best represent the data. It is a data-driven method, and one of the most useful and essential methods in reducing the numbers of variables into smaller, more controllable sets (Anderson et al., 1997; Hair et al., 1998; Watkins, 2021).

Principal component analysis (PCA), orthogonal (Varimax) rotation, and eigenvalues were used for the factor analysis. Principal component analysis was used for factor extraction, to predict the minimum number of factors, and to explain the maximum variance. The orthogonal rotation method was used because it is suitable for reducing the number of variables to a smaller group of uncorrelated variable qualities. Finally, the eigenvalues (Malhotra, 2010) representing the total variance described by each factor were used to determine the number of factors to extract (Hair et al., 1998).

#### **4.8.2 Structural Equation Modelling (SEM)**

This study conducted structural equation modelling (SEM) with the PLS 3.3.5 statistical software package to separate the relationships for each dependent variable (Hair Jr et al., 2021) and to gain further insight into the various influences and relationships (Foroudi, 2013). Based on the literature, the proposed conceptual framework was reviewed and then by applying a structural equation model the hypotheses were tested. Tabachnick and Fidell (2007) claims that, SEM is a compilation of statistical techniques that initiates a set of associations between one or more independent variables. These associations can either be continuous or discrete, which are to be examined. It is demanded that structure equation modelling has the sturdiest explanatory power. Both exogenous variables and endogenous variables can either be factors or they could be measured variables (Foroudi, 2013; Hair et al., 2006).

There are different types of statistical software for analysing SEM depending on the nature of the research. As recommended by many authors (Anderson and Gerbing, 1988; Hair et al., 2006; Hair Jr et al., 2021; Purwanto et al., 2020), the two-step approach while undertaking the structural equation modelling (SEM), examines the importance of all pattern coefficients and thus presents a useful framework. This helps in formal comparisons of the substantive model of interest, with the next likely theoretical alternatives (Foroudi, 2013). In this study, testing of the measurement model was carried out using PLS to identify the causal associations between the observed items (variables) and the latent (unobserved) construct. Although it has been a common practice by researchers to use AMOS to analyse their CB-SEM, this study considered PLS-SEM due to a number of factors that are relevant to this research and that required PLS-SEM to be put applied instead of CB-SEM (AMOS).

PLS-SEM has become one of the most prominent statistical analysis techniques today (Altikriti and Anderson, 2021; Hair Jr et al., 2021), and it has been used in some of the top marketing and strategic brand management journals where complex models have been involved (Ali et al., 2017; Chin et al., 2010; Fornell and Larcker, 1981; Hair Jr et al., 2021; Kline, 2011). PLS-SEM permits the simultaneous

modelling of multiple layers. Furthermore, it allows analysis of the set of interconnected research questions within a single precise model, in a methodical way (Chin et al., 2010, Hair Jr et al., 2021; Hult et al., 2018; Kline, 2011). Hence, this was the first reason for using PLS-SEM, as it was the perfect solution for complex models like the one in this study (Hair Jr et al., 2021).

The second reason is the nature of the conceptual model and the way it is measured. In nearly all business studies, latent factors are measured using reflective indicators (Altikriti and Anderson, 2021; Chi et al., 2021; Diamantopoulos, 1999; Coltman et al., 2008; Foroudi, 2010). This study is slightly different as it considers and includes both a reflective and a formative approach or modelling simultaneously. The first part of the model, i.e., transaction experience, is a formative variable and is measured through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security and thus is formative. On the other hand, the rest of the model is reflective as are most business and marketing studies. This poses a challenge for analysis and makes the model complex; hence, instead of CB-SEM, PLS-SEM was chosen, since PLS-SEM can account for both reflective and formative variables at the same time (Altikriti and Anderson, 2021; Chi et al., 2021; Hair Jr et al., 2021; Kline, 2011; Tenenhaus et al., 2005).

The third reason for using PLS-SEM to test the hypotheses of this study was because the variables showed no normal distribution (Hair Jr et al., 2021). As the values were not normally distributed, non-parametric tests were used for all statistical analyses. In addition, researchers recommend using PLS in all non-parametric tests instead of AMOS, which is for analysing parametric tests (Ali et al., 2017; Altikriti and Anderson, 2021; Chi et al., 2021; Hair Jr et al., 2021; Kline, 2011; Tenenhaus et al., 2005).

Finally, PLS makes analysis of moderators and mediators very easy and straightforward especially when more than one moderator/mediator is present and there is the need for multi-group analysis (Altikriti and Anderson, 2021; Chi et al., 2021; Hair Jr et al., 2021; Lee and Hallak, 2018; Purwanto and Sudargini, 2021; Sarstedt et al., 2020; Tenenhaus et al., 2005).

Hence, due to the nature of the analysis and the complexity of the model, Smart PLS 3.3.5 was the best statistical package for analysing the conceptual model studied for this research (Beyari and Ghouth, 2018; Hasfar et al., 2020; Hair et al., 2021; Purwanto et al., 2019; Wibowo et al., 2021). According to Hair et al. (2017), PLS-SEM aims to test the predictive relationship between constructs by seeing whether there is any relationship or influence between these constructs. PLS-SEM testing can be done without a strong theoretical basis and is very appropriate to be used in research that aims to develop a

theory (Hair et al., 2017; Purwanto et al., 2019; Wibowo et al., 2021). Thus, PLS-SEM helped in allowing the simultaneous modelling of multiple layers and answered the set of interconnected research questions in a single accurate model in a systematic manner (Chin et al., 2010, Hair Jr et al., 2021; Hult et al., 2018; Kline, 2011).

PLS-SEM, in this study, was analysed in two phases. In the first phase, the measurement model was examined with the help of confirmatory factor analysis (CFA), whereby, the variables that defined each construct were specified (Hair Jr et al., 2021; Kline, 2011; Malhotra, 2007; Malhotra et al., 2012). It aimed to confirm whether the number of factors and the loadings of the observed variables confirmed what was expected based on the theory (Malhotra, 2007; Malhotra et al., 2012). In the second phase, the structural model portrayed how the constructs were interrelated to each other, often with multiple dependence relationships, and thus specified whether a relationship existed or not (Malhotra, 2007).

SEM, in this study (compared to other multivariate techniques), was used based on the following characteristics as set out by Malhotra (2007, pp. 724-725):

- (i) representation of constructs as unobservable or latent factors in dependence relationships
- (ii) estimation of multiple and interrelated dependence relationships in an integrated model
- (iii) incorporation of measurement error in an explicit manner, as SEM can explicitly account for less than perfect reliability of the observed variables, thus providing analysis of attenuation and estimation bias due to measurement error
- (iv) explanation of the covariance among the observed variables, as SEM seeks to represent hypotheses about the means, variances, and covariance of observed data in terms of a smaller number of structural parameters defined by a hypothesised underlying model.

#### **4.8.3 Evaluation of Model Fit**

CFA complements the confirmatory stage because there is total control over the description of a construct's indicators; which allows a statistical test of the goodness-of-fit and test dimensionality for



the specific measurement model (Foroudi, 2012; Hair et al., 1998). CFA is mainly performed to validate/confirm the measurement factors which exist within a set of variables in the theoretical model (Hair et al., 2006).

Assessing reliability normally assumes certain unidimensional measures as claimed by Bollen (1989). Novick and Lewis (1967) claims that the coefficient alpha and the customary index of reliability in marketing, underestimates the reliability of a multidimensional measure. On the other hand, Hunter and Gerbing (1982) claimed that, unidimensionality is essential for implementing the coefficient alpha effectively and for evaluating the goodness-of-fit of any model (taking into consideration the theoretical, statistical, and practical deliberations). In the next step, absolute fit indices, incremental fit indices, and indices of model parsimony are discussed, as per recommendation of the methodological literature on CFA.

Firstly, this research considered the incremental fit indices and also the absolute fit indices. The absolute fit indices helped in analysing and examining the structural model and measurement models collectively (Hair et al., 1998). The absolute fit indices signify the degree to which the hypothetical model reproduces the sample data. The goodness-of-fit indices can help to check the nomological validity of measurement models. The absolute fit indices are unlikely use an alternative model as a basis for comparison. The chosen fit indices are presented below. More detailed are discussed in Chapter 6.

- i) Chi-square ( $\chi^2$ ) is known to be the most common methods of evaluating goodness-of-fit. Chi-square statistics claimed to be the first measure of fit included in the PLS output. Hair et al. (1998) stated, a low  $\chi^2$  value, indicates that there is no significance. This points to a good fit because the chi-square test is used to measure actual and predicted matrices. Hence, non-significance means that there is no significant difference between the actual and predicted matrices.

A model's goodness-of-fit denotes whether the model significantly differs from the null model. The rule of statistics claims that the null is normally '0'. A value larger than zero or a high p-value would result in rejecting the null hypothesis due to a high probability could be a wrong decision (MacLean and Gray, 1998). Similarly, a low p-value or one close to zero is the indication that the null hypothesis can be rejected with a low probability could also mean a wrong conclusion. The discrepancy between the two matrices should not be

statistically different ( $p > .05$ ). According to Hair et al. (2006) and Tabachnick and Fidell (2007), chi-square is very sensitive to the sample size and using this fit only to assess the overall goodness-of-fit of the model has been criticised.

According to Kline (1998), a  $\chi^2$ / d.f. ratio of 3 or less indicates a reasonable fit for the model. It is believed that  $\chi^2$  is very sensitive to the sample size, particularly if the observations are greater than 200. If the data show deviations from normality, that means the chi-square is larger than what is anticipated from the error in the model. Unfortunately, there are no specific guidelines for the minimum acceptable norm  $\chi^2$ , (chi-square), which is also known as *T. chi-square*. *T. chi-square* is the original fit index for structural models and should be merged with other indices (Hair et al., 1998). It is customary to report this index in SEM results.

- ii) The goodness-of-fit index (GFI), was introduced by Joreskog and Sorbom (1982) and is the first measure of the model to create a fit statistic. It is considered to be less sensitive to sample size. The GFI generates relative amount of variance and covariance, in the sample covariance matrix. It is usually described by the population covariance matrix (Foroudi, 2013). The GFI values range from 0 to 1, with values close to 1 being indicative of a good fit. If the index is greater than 1, it is fixed at 1 and if less than 0, it is fixed to 0. Usually, the GFI ranges between 0.90 and 1.00 and measures between 0.80 and 0.89 are suggestive of a reasonable fit (Doll et al., 1994). According to Tanaka and Huba (1985), GFI of less than 0.8 should be discarded. The variance determines the fundamental concept of how the good-of-fit of a model can be measured.
- iii) Another useful tool for comparing competing models is known as the adjusted goodness-of-fit index (AGFI), which is adjusted for the degrees of freedom of the model to the degrees of freedom for the null model (Hair et al., 1998). The GFI and AGFI are chi-square-based calculations which is independent of degrees of freedom. AGFI adjust the GFI for degree of freedom, resulting in lower values for models with additional parameters. The AGFI corresponds to the GFI in replacing the total sum of squares by the mean sum of squares. For an adequate fit, the AGFI must be greater than 0.90 (Bentler and Bonett, 1980). Generally, AGFI values which is equal to or greater than 0.9 is considered a good fit, and the values range from 0 to 1 (Byrne, 2001; Hair et al., 2006; Lai, 2021; Tabachnick and

Fidell, 2007). Values ranging from 0.80 to 0.89 are indicative of a reasonable fit (Doll et al., 1994).

- iv) Another extremely informative criterion in evaluating the model fit is the root-mean square error of approximation (RMSEA). RMSEA index measures the inconsistency between the sample and fitted covariance matrices per degree of freedom (Steiger, 1990). It is considered very sensitive to the number of parameters (Lai, 2021; MacCallum et al., 1996). RMSEA measures the discrepancy in terms of the population rather than the sample. It represents “how well a model fits a population” (Hair et al., 1998, p. 748). A good fit represents a value of less than 0.05, whereas, a reasonable fit is represented by a value up to 0.08. A poor and unacceptable fit represents any value of more than 0.08 (Byrne, 2001; Hair et al., 1998, 2006; Lai, 2021; Montoya and Edwards, 2021; Tabachnick and Fidell, 2007).

Secondly, the incremental fit indices calculate how the specified models fit a specific null model (Hair et al., 2006). This study considered a number of incremental fit indices. The first one is the normed fit index (NFI) or Bentler-Bonett index (Bella and Kazimir, 2021; Tabachnick and Fidell, 2007). NFI compares a model with the recommended model, not accounting for the degree of freedom, and measures the proportion by which a model is improved in terms of fit compared with the base model (Hair et al., 2006). NFI compares the  $\chi^2$  value of the model to the  $\chi^2$  value of the independence model (Awwad et al., 2021; Bella and Kazimir, 2021; Byrne, 2001; Hair et al., 2006; Tabachnick and Fidell, 2007). However, the NFI index does not control for degrees of freedom; rather, it underestimates the fit in small samples (Awwad et al., 2021; Byrne, 2001). CFI is considered to be an improved version of the NFI index by many authors (Awwad et al., 2021; Bella and Kazimir, 2021; Byrne, 2001; Hair et al., 2006; Lai, 2021; Tabachnick and Fidell, 2007).

The comparative fit index (CFI) is measured against the non-centrality measure. Where the index value is greater than 1, it is set at 1, and where it is less than 0, it is set to 0. A good fit is considered where CFI is closer to 1 (Bentler, 1990). This index relies on the average size of the correlations in the data (Byrne, 2001; Caldwell et al., 2021; Hair et al., 2006; Tabachnick and Fidell, 2007). It is claimed that, if the average connection among the variables is not too high then the CFI will not be very high either (Foroudi, 2013).

Lastly, the Tucker-Lewis index (TLI) was considered, which is also known as non-normed fit index (NNFI). It compares the  $\chi^2$  value of the model with that of the independence model and takes degrees

of freedom for both models being measured (Byrne, 2001; Cai et al., 2021; Hair et al., 2006; Tabachnick and Fidell, 2007). It usually relies on the average size of the correlations in the data. It is claimed that, if the average relationship among variables is not high, the TLI will not be very high. Hair et al. (2006) argued it to be a mathematical comparison of a specific theoretical measurement model and a baseline null model. If the value is equal to 0.9 or higher, it is considered good, whereas if the value is equal to 0.8 is considered acceptable (Gerbing and Anderson, 1992). TLI is an example of an index that adjusts for tightness of the model, even though that was not its original intent.

#### **4.8.4 Assessment of Unidimensionality**

Unidimensionality is a very important property for measures. It is essential yet not adequate for construct validity (Gerbing and Anderson, 1988). Cronbach (1984) defined unidimensionality as follows: “A set of items is ‘unidimensional’ if their order of difficulty is the same for everyone in a population of interest” (p. 116). Usually a unidimensional item (indicator) has only one fundamental construct. However, according to Anderson and Gerbing (1988), a unidimensional measure consists of unidimensional items or indicators. Unidimensionality was typically believed to be the specification of a model and is assessed with structural equation analysis in order to isolate measurement issues (i.e., the association between a construct and its observed variables or indicators) from model structural issues (i.e., the associations or paths between constructs) (Anderson and Gerbing, 1988).

Anderson and Gerbing (1982) suggested operationalising unidimensionality with the help of structural equation analysis, conceptualises external and internal consistency. Kenny (1979) described consistency, as the structural equation model to fit the data. Whereas, Anderson and Gerbing (1982) defined it, as two indicators of X,  $x_1$  and  $x_2$ , which are internally consistent whether the correlation among them is the same as the correlations with their construct X (Foroudi, 2013).

Similarly, an indicator of X and an indicator of Z,  $x$  and  $z$ , are externally consistent whether the association among  $x$  and  $z$  is the same as the three correlations:  $x$  with its construct X,  $z$  with its construct Z, and X with Z. Therefore, if X is internally and externally consistent, it will be unidimensional. External consistency is suggested by items that “cluster together in a matrix of sorted or ordered similarity coefficients” (Anderson and Gerbing, 1982, p. 458). Since, there exists little practical difference between the coefficient alpha ( $\alpha$ ) and the latent variable reliability ( $\rho$ ), for sufficiently unidimensional constructs, it is a good idea to employ coefficient alpha to assess the reliability at the preliminary stage (Gerbing and Anderson, 1988).

#### **4.8.5 Assessment of Composite Reliability**

CFA recognises the calculation of an additional estimation of a composite reliability, i.e., a construct's reliability (Gerbing and Anderson, 1988; Hair et al., 1998). Composite reliability is a measure of reliability, and it helps to assess the internal consistency of the measured variables which represents a latent construct (Hair et al., 2006). Hair et al. (1998) claims that composite reliability is a prime measure while evaluating the overall reliability of the measurement model and for measuring every latent construct in it. According to the author (Hair et al., 2006), the minimum value for composite reliability should be 0.7. This indicates that the measures consistently represent the same latent construct (Nunnally and Bernstein, 1994). Hair et al. (2006) suggests, construct reliability or what we know as Cronbach-alpha, measures the indicators' unidimensionality (inter-correlation) with their latent constructs.

#### **4.8.6 Assessment of Average Variance Extracted (AVE)**

The average variance extracted (AVE) is the measure of the common variance in a latent variable (LV). Thus, this is the amount of variance that is captured by the latent variable in relation to the variance due to random measurement error (Dillon and Goldstein, 1984; Fornell and Larcker, 1981). On the other hand, AVE is a measure of the error-free variance of a set of items and it represents a stronger indicator of the construct reliability than the composite reliability (Fornell and Larcker, 1981). AVE measures the overall amount of variance that is captured by the indicators relative to measurement error (Foroudi, 2013). In order to justify using a construct, and to ensure the validity of the scale under investigation, it should be equal to or greater than 0.50 (Hair et al., 1998). According to Fornell and Larcker (1981), "If it is less than 0.50, the variance due to measurement error is larger than the variance captured by the construct, and the validity of the construct is questionable" (p. 46).

#### **4.8.7 Assessment of Nomological Validity**

Nomological validity is a crucial step in theory development and testing, for achieving construct validity (Bagozzi, 1980; Gerbing and Anderson, 1988; Heydari et al., 2021; Malek et al., 2021; Nunnally, 1978; Steenkamp and Trijp, 1991). Nomological validity tests the hypothesised relationships among different constructs and the empirical relationship between measures of different constructs (Peter, 1981; Peter and Churchill, 1986). It signifies the expected behaviour of the measure (Heydari et al., 2021; Peter and Churchill, 1986) and checks whether constructs behave as expected in theoretical and empirical terms (Heydari et al., 2021; Peter, 1981; Peter and Churchill, 1986). GFIs are taken into consideration while testing the nomological validity of the measurement models (Heydari et al., 2021; Steenkamp and Trijp, 1991).

#### **4.8.8 Assessment of Convergent Validity**

Convergent validity is the extent to which independent measures of the same construct converge or are positively correlated (Corcoran, 2020; Gerbing and Anderson, 1998; Malhotra and Birks, 2000; Peter and Churchill, 1986; Suryani and Claudya, 2021) with other measures of the same construct, and it refers to the homogeneity of the construct. It can be assessed based on construct reliabilities (Anderson and Gerbing, 1988; Corcoran, 2020; Suryani and Claudya, 2021). According to Fornell and Larckers (1981), convergent validity is related to the internal consistent validity between each construct item, i.e., high or low correlations. That is, convergent validity is indicated by item reliability, composite reliability, and AVE (Fornell and Larcker, 1981). It assesses the t-values and level of significance of the factor (Chau, 1997). Researchers that (Chau, 1997; Corcoran, 2020; Shiu et al., 2009; Suryani and Claudya, 2021) have suggested that high inter-item correlations within each construct indicate convergent validity. According to Nunnally (1978), reliability of 0.7 or higher implies convergent validity, and measures with reliabilities above 0.85 include more than a 50% error variance.

#### **4.8.9 Assessment of Discriminant Validity**

Discriminant validity is known as the extent to which measures of one construct are not highly correlated with measures of other constructs (Chau, 1997; Foroudi, 2013; Franke et al., 2021; Malhotra and Birks, 2000; Peter and Churchill, 1986; Schimmack, 2021). When there is a negative correlation between the experiment's measure and the measurement of different constructs, discriminant is considered invalid (Franke et al., 2021; Shiu et al., 2009). On the other hand, when the relationship between two constructs is significantly lower than 1.00, the presence of discriminant validity is evident (Anderson and Gerbing, 1988; Bagozzi et al., 1991; Franke et al., 2021).

“Discriminant validity can be assessed for two estimated constructs by constraining the estimated correlation parameter ( $\phi_{ij}$ ) between them to 1.00 and then performing a chi-square difference test on the values obtained for the constrained and unconstrained model” (Anderson and Gerbing, 1988, p. 416). According to Homburg et al. (1999), in cases where the restricted model portrays a poorer fit than the unrestricted model, there is evidence of discriminant validity. Fornell and Larcker (1981) suggest, discriminant validity can be measured by AVE for each construct and compared with the square correlation between them. The authors further claimed that if the squared correlation (error-disattenuated or structural equation model) between two latent variables is less than either of their individual AVEs, it suggests that each of the constructs has more error free (extracted or internal) variance than the variance shared with other constructs ( $R^2$ ).

Besides, if they are correlated more internally than they are with other constructs, then the discriminant validity of the target variance is extracted (Fornell and Larcker, 1981; Schimmack, 2021). In brief, validity is a very crucial measure of the study process (Garver and Mentzer, 1999) and signifies the unidimensionality of a construct (Franke et al., 2021; Steenkamp and Trijp, 1991). It also denotes the reliability, nomological validity, convergent validity, and discriminant validity (Franke et al., 2021; Peter, 1981; Steenkamp and Trijp, 1991; Schimmack, 2021) in order to conduct the structural evaluation model of this research study.

#### **4.9 THE ETHICAL CONSIDERATIONS**

Ethical considerations are very important when conducting any academic research. Ethical considerations for this research are created on the guidelines provided by the Middlesex University Business School ethics form and the British Educational Research Association (2018). It is a mandatory and inevitable part of the research process to understand the basics of ethical research and its effect on the study. All business and social researchers typically share a common ground of a number of ethical concerns (Jowell, 1986), and all researchers must conduct their research in an appropriate manner and in line with a relevant and specific subject (Foroudi, 2012).

This study takes into account four basic considerations. Firstly, it is necessary to protect the statutory rights of the social investigation groups by avoiding unnecessary interruption, obtaining permission from the people being studied, and protecting the groups' privacy. Secondly, the ethical conduct of the research needs to outline the research questions objectively. Thirdly, it is important to be aware of social and cultural differences. Fourthly, giving full information on the methodologies increases public confidence in their reliability. And finally, it should be acknowledged that the questionnaires inevitably interrupt the solitude of individuals. These considerations are evident in the covering letter that was attached to each of the questionnaire. Similarly, all the interviews and focus groups sessions that were conducted as part of the qualitative study were recorded with the consent of each of the participants. With all these considerations mentioned above, Middlesex University granted its approval to conduct this research.

#### **4.10 SUMMARY**

This chapter presented the perspective, the approach, and the methodology used in this study to test the operational model and hypotheses presented in Chapter 3. Churchill's (1979) paradigm was followed to test and measure the model. The definition and the development of measurement scales

for constructs were presented. Firstly, methodology of qualitative study was detailed which was based on 9 in-depth interviews and 4 focus groups. Secondly, the methodology of the quantitative study based on the self-administered questionnaire was discussed in details. Before conducting the main survey, a pilot study was conducted with 50 respondents. A 7-point Likert scale was used to record the respondents' attitude towards transaction experience and the transaction-specific outcomes, thus specifying the degree of agreement or disagreement.

Finally, the main survey was conducted with a revised questionnaire after the pilot study; 600 respondents were approached for the purpose of the survey, from which 500 final complete questionnaires were selected for further analysis. Data was collected through a self-administered questionnaire face to face, by phone, by email, and by using Google Forms for the social media audience. Due to the pandemic, most of the data were collected online and very few from the face-to-face survey. This chapter outlined some of the main issues associated with data collection, such as the unit of analysis, the development of a survey instrument, and the techniques that were used in data analysis as well as exploratory factor analysis, confirmatory factor analysis and structure equation modelling. Finally, the ethical considerations were presented. The next chapter outlines the qualitative study in detail.



# Chapter 5: QUALITATIVE FINDINGS

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## 5.1 INTRODUCTION

The previous chapter discussed the importance of the methodology used in this thesis. In this section, the results of the in-depth interviews and focus groups and the data obtained from the communication, marketing, brand and retail management experts are presented with appropriate references. Qualitative findings are based on nine interviews with individuals from marketing, brand, and retail management, as well as observations of four focus groups, all of which included people in the target demographics, including academics, young students, bus drivers, retail workers, and office workers. This chapter begins with an introduction in Section 5.1. Section 5.2 explains the outcomes/results of the qualitative research, and Section 5.3 presents some of the improvements to the conceptual model that arise from those findings and hence presents a revised conceptual framework for the study. A summary is included in section 5.4, the final section of this chapter.

## 5.2 FINDINGS FROM THE QUALITATIVE STUDY

The most important goal of qualitative research is to do research that goes deeper and gets to the heart of the matter, rather than simply collecting data and studying the surface characteristics. This study seeks to provide additional in-depth information to build on the transaction experience concept, establish the concept, and measure the ‘transaction-specific outcomes’ while also exploring how the transaction-specific outcomes affect transaction-specific brand equity. In this section, the findings from the qualitative study are reported, and the data supporting the developing themes of the current research on transaction experience, its dimensions and consequences towards transaction-specific brand equity are presented. The content analysis of this research has identified three elements of transaction experience and seven dimensions that affect the relationship to transaction-specific brand equity. These elements were uncovered in this thesis. For instance, based on the technology acceptance model (TAM) by Davis (1986), perceived transaction speed, convenience, and enjoyment is a solid basis to start formulating measures for transaction experience (Chen, 2008; Davis, 1986; Venkatesh, 2000).

The outcomes of transaction experience evident in the literature are-

- Transaction-specific satisfaction (Bae et al., 2021; Bolton and Drew, 1991; Boulding et al., 1993; Burns and Neisner, 2006; Grewal et al., 2009; Janda and Ybarra, 2005; Kim, 2005, Lee et al., 2018; Lien et al., 2017; Martenson, 2007; Meyer and Schwager, 2007; Meyer and

Schwager, 2007; Oliver, 1980, 1993; Reicheld, 1996; Sivadas and Prewitt, 2000; Sulphrey and George, 2017; Susan, Neil and Moira, 2011; Verhoef et al., 2009; Wibowo et al., 2021).

- Transaction-specific trust (Ameen et al., 2021; Bawack et al., 2021; Dutot, 2015; Dwyer et al., 1987; Ganesan, 1994; Garbarino and Johnson, 1999; Keller, 1993; Krishnan, 1996; Moody et al., 2017; Patil et al., 2018; Szumski, 2020).
- Transaction-specific performance (Agarwal et al., 2003; Briedis et al., 2021; Cadotte et al., 1987; Eysenck and Keane, 1990; Hui and Tse, 1996; Labarbera and Mazursky, 1983; LaTour and Peat 1979; Nguyen et al., 2021; Noble et al., 2002; Oliver 1997; Punjaisri and Wilson, 2017; Smith et al., 2017; Woodruff et al. 1983; Zhang et al., 2017).
- Brand personality (Aaker, 1997; Conejo et al., 2017; George and Anandkumar, 2018; Keller, 1993; Liao et al., 2017; Oklevik et al., 2021; Plummer, 1985; Plummer, 2000; Ranfagni et. al., 2016; Shank and Langmeyer, 1994; Stancu et al., 2021) and
- Transaction-specific brand associations (Aaker, 1991; Berry, 2000; Keller, 2003; Long and Swaminathan, 2006; Motta, 2021; Robertson et al., 2021; Zha et al., 2020).

On the other hand, the literature supports that the antecedents to (transaction-specific) brand equity is-

- Transaction-specific perceived value (Aaker, 1996a; Anselmsson et al., 2017; Baldauf et al., 2003; Bell et al., 2005; de Chernatony and Segal-Horn, 2003; Farquhar, 1989; He and Li, 2011; Jahanzeb et. al., 2013; Jeon, and Yoo, 2021; Juga et al., 2018; Keller, 1993; Kim and Kim, 2004; Malik, 2012; Ng et al., 2014; Parasuraman and Grewal, 2000; Rodríguez et al., 2020).
- Transaction-specific trust (Aaker, 1996; Ambler, 1997; Ballester and Aleman, 2005; Blackston, 1995; Ebrahim, 2020; Gurviez, 1996; Heilbrunn, 1995; Hiscock, 2001; Lassar et al., 1995; Liao and Wu, 2009; Mohamed and Daud, 2012; Moussa and de Barnier, 2017; Shin, 2010).
- Transaction-specific brand performance (Almeyda and George, 2020; Anselmsson et al., 2017; Chaudhuri, 2002; Ekinci, 2018; Franzen and Bouwman, 2001; Keller and Brexendorf, 2017; Keller, 1998; Kotler, 2006; Lassar et al., 1995; Reid, 2002; Wong and Merrilees, 2007).

- Transaction-specific brand personality (Ahmad et al., 2021; Baldinger, 1996; Dirgantari et al., 2020; Dyson et al., 1996; Farhat, 2020; Freling and Forbes, 2005a, 2005b; Giroux et al., 2017; Holehonnur et al., 2009; Jia, 2017; Keller, 1993; 2008; Lemon et al., 2001) and
- Transaction-specific associations (Bridges et al., 2000; Broniarczyk and Gershoff, 2003; Chen, 2001; Çifci et al., 2016; Keller, 2003; Keller, 2020; Pouromid and Iranzadeh, 2012; Quester, 2017; Yoo et al., 2000; Zablocki et al., 2017).

In accordance with the literature reviewed in Chapter 2, all participants during the qualitative study emphasized and agreed on the importance of perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment during a transaction experience and the impact of sustaining a positive transaction experience to gain transaction-specific brand equity.

### **5.2.1 Transaction Experience**

Transaction experience has been studied by a few researchers (Chalil et al., 2020; Devaraj and Kohli, 2002; Gupta and Kim, 2007; Herz and Taubinsky, 2018; Hodgkinson et al., 2021; Holger and Dmitry, 2018; Nasar et al., 2021; Purnama et al., 2021; Wu and Wang, 2005; Zaner et al., 2012) in the field of information technology but lacks any solid definition or measures for this concept. Furthermore, this concept has been ignored in the marketing literature. Therefore, it was very important to explore transaction experience in the qualitative study. In Chapter 2, a definition of transaction experience was derived based on some past literature regarding different types of experiences (product experience, brand experience, service experience, online customer experience, shopping experience, sensory experience, place brand experience, consumption experience, and retail experience). The qualitative study was designed to test the authenticity of the definition formulated by the researcher.

To explore the concept of transaction experience, all the participants were asked about their opinion regarding transaction experience. Almost all of them (99%) had two perceptions of transaction experience in common. Firstly, they considered transaction experience to be a part of overall customer experience, and secondly, they felt that transaction experience is the experience starting from when customers queue up at the checkout until the customer has paid, finished the transaction, and left the checkout. When participants were asked what they understood by ‘transaction experience’, they responded as follows:

*Transaction experience is that part of the overall customer experience which starts when a customer is queuing up in the till to pay for their items until he/she has paid and left the store with a goodbye. (ME, Commercial Manager, M&S)*

*If you try to differentiate these two, transaction experience would be while they are paying, how they're paying, and the experience they get. (SH, Brand Manager, SSP)*

*Transaction experience is how you pay. Was it fast? Was it smooth? And was it reliable and trustworthy in terms of card transaction? (JA, Marketing Manager, Coffee Republic)*

*Customer experience is everything like services, this and that. Transaction experience is just the time during transaction when the customer comes. (SR, Store Manager, Costa Coffee)*

*Transaction experience is like when a person is going to make a transaction ...from the time you queue up to the time you say goodbye, this whole experience is transaction. In our company, the transaction experience is 3-4 minutes! Introduce yourself to the customer, ask them what they need, take the order, and then take the transaction and provide the order. (MS, Business Manager, McDonald's)*

*It's the moment when customer is doing the payment.... transaction experience is from the time when the customer is queuing up to the time when they have gone through the payment system and go out. (WV, Customer Service Manager, Vital Ingredients)*

*From a customer's point of view, it is from the point they decided to pay to the point the payment procedure ends. (ZS, Retail Manager, Boots)*

*It's basically the entire experience that comes from the process when the transaction goes through.... The whole customer experience is built up with so many experiences, and transaction experience is just a part of it.... It is linked. (FG-A, Academics)*

From the statements above, it was also worth the researcher considering different types of experiences to conceptualise transaction experience.

*It is the whole process of transaction. The moment you ask to purchase something, to the purchase, and to the end of it, and to what happens next. (FG-B, MBA Students)*

*The time when they touch their card for paying... I think 'it's when they pay for the thing they want and until they get the whole service is basically the transaction. (FG-C, Bus Drivers & Retail Staff)*

*Transaction experience is a part of customer experience. It is when [customers are] waiting in the queue and paying. (FG-D, Office Workers)*

For one of the participants who worked for London Underground, transaction experience was viewed in a different way; however, she conceptualized it in a similar way by stating the following:

*It is the time of transaction or the moment of transaction. For us the transaction experience is the time when the passengers touch in or touch out the gates and gets in or out through the gates. (SB, Station Supervisor, TfL)*

From the qualitative study, the concept of transaction experience was clearer and more meaningful. In addition, the concept was in line with the definition of transaction experience derived from the literature review in Chapter 2. This study defines transaction experience as a set of transaction-specific interactions between a customer and the product/service provider (Gentile et al., 2007; Hoch, 2002; Kerin et al., 1992; Meyer and Schwager, 2007; Terblanche and Boshoff, 2002), which provokes a reaction (Gentile et al., 2007) involving cognitive, affective, emotional, social (Bolton et al., 2014; Brakus et al., 2009; Gentile et al., 2007; Meyer and Schwager, 2007; Shilpa and Rajnis, 2013), behavioural, and physical (Bolton et al., 2014; Meyer and Schwager, 2007; Pine and Gilmore, 1998; Shilpa and Rajnis, 2013) responses due to transaction-related stimuli such as the enjoyment, ease, and speed of the transaction (Brakus et al., 2009).

The first part of the definition stated, “Transaction experience is a set of transaction-specific interactions between a customer and the product/service provider” (Terblanche and Boshoff, 2002; Gentile et al., 2007; Hoch, 2002; Kerin et al., 1992; Meyer and Schwager, 2007). This statement is validated from the qualitative study with respondents conceptualising it in a similar manner-

*It is when the customers are paying for their purchase at the checkout. (ME, Commercial Manager, M&S)*

*It's like each customer, whenever they pay, whatever they order, it is a transaction for us. [...] With that, the experience they're getting from each time they come into the unit is transaction experience. (SH, Brand Manager, SSP)*

*It could be cash transaction; it could be electronic fast transaction and card payment. It could be any transaction, but transaction experience is how you pay. Was it fast? Was it smooth? And was it reliable and trustworthy in terms of card transaction? (JA, Marketing Manager, Coffee Republic)*

*It is the way you make a transaction, whether money, like it's cash or ca-d - whatever you are paying with. (FG-B, MBA Students)*

*When you decide to pay and pay for your product, and they receive your money, that is transaction. (FG-C, Bus Drivers & Retail Staff)*

Thus, from the qualitative study, it is evident that by 'transaction-specific interactions' they understand the relationship between customers and the retail organisation that is related to or based on 'transaction' only, such as the method of paying (i.e., card, cash, contactless payment etc), the process of paying (queuing up at the checkout, paying and leaving the checkout), and most importantly, the experience of paying at a particular store (smooth, fast, reliable, trustworthy etc). Considering this important finding, it can also be claimed that the use of the term 'transaction-specific' by the researcher is justified for all the outcomes from a transaction experience. More findings and justifications are discussed in Section 5.5.5, which explores the outcomes of a positive transaction experience.

The latter part of the definition of transaction experience states that it provokes a reaction (Gentile et al., 2007) involving cognitive, affective, emotional, social (Bolton et al., 2014; Brakus et al., 2009; Gentile et al., 2007; Meyer and Schwager, 2007; Shilpa and Rajnis, 2013), behavioural and physical (Bolton et al., 2014; Meyer and Schwager, 2007; Pine and Gilmore, 1998; Shilpa and Rajnis, 2013) responses due to transaction-related stimuli, such as enjoyment, ease, and speed of transaction. It was surprising how the respondents described all the different types of cognitive, affective, emotional, behavioural, and physical responses evoked by certain transaction-related stimuli:

*In McDonald's, we have installed a new system called 'chaos'. This is a digital monitor: you touch the screen and choose your food and make the payment with your card. When they come to the till, we look after the time limitation. We greet them and ask them what they want and tell them about the details of the food and also the service they want and make sure we serve them as quickly as possible. (MS, Business Manager, McDonald's)*

*Obviously, everybody wants a good experience. While they're shopping, they are paying money; obviously, the product they buy and the service they are getting, if those are good, like with the contactless, they're making it quickly and they can finish within their own time, I think that makes them happy. ... (SH, Brand Manager, SSP)*

*For me it would be how reliable the machine is, how it is working. (FG-A, Academics)*

*If you look into it, when your transaction is becoming smoother and faster, you'll go somewhere where you'll have more reliability and faster and smoother transaction. When we are providing those services along with contactless transaction, customers will be much more comfortable to come here. (JA, Marketing Manager, Coffee Republic)*

*As I said before, we are encouraging our customers to use contactless rather than the traditional Oyster cards. This is good for both us and for our customers. For us, we have fewer issues related to Oyster cards plus less queue in the ticketing machine. It makes life easier for us. From our customers' point [of view], using contactless is also beneficial for them-the reasons being the same. (SB, Station Supervisor, TfL)*

*It makes [it] easier for the customers at the checkout. It makes their experience more joyous and quicker. (ME, Commercial Manager, M&S)*

*When people have good experience[s] from the transaction of a company, they begin to trust it. (FG-D, Office Workers)*

Other transaction-related stimuli in the definition above, such as enjoyment, ease, and speed of transaction (Brakus et. al., 2009) are discussed in the next section.

### 5.2.1.1 Measuring Transaction Experience

As detailed in Chapters 2 and 4, transaction experience is constructed to be a formative variable in this study, which is measured in a formative manner through perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment according to TAM (Davis, 1986) and based on other existing literature (Akkucuk and Teuman, 2016; Chen, 2008; Chen and Li, 2017; Davis, 1986; Teo et al., 2015; Venkatesh, 2000).

Similarly, from the qualitative study, among all the other measures which in the definition of transaction experience are called transaction-related stimuli, these three measures (perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment) are shown to be more prevalent and of more importance in regard to transaction experience. However, another new finding (perceived transaction security) during the qualitative study emerged as a measure of transaction experience, which previously had been ignored/missed by the researcher. This is discussed in Section 5.5.1.1.4 as a part of the revised model.

#### 5.2.1.1.1 Perceived Transaction Speed

The concept of perceived transaction speed is evident mainly in the e-commerce and technological studies (Akkucuk and Teuman, 2016; Chen, 2008, Chen and Li, 2017; Dutot, 2015; Jalil et al., 2021; Jie and Kamsin, 2021; Jonker, 2007; Lee, 2009; Li et al., 2009; Liang and Huang, 1998; Zarpou et al., 2012). However, the marketing literature (Parasuraman et al., 1994, Teo et al., 2015) also makes a few contributions to this concept, and it is also evident in the retailing literature (Brown et al., 1993; Rowley, 1996; Oliver, 1981; Sirohi et al., 1998; Wei et al., 2021; Wolfinbarger and Gilly, 2003; Zarpou et al., 2012), as saving time is an important issue for marketers, retailers, and customers. The qualitative study revealed that in a transaction experience, the most important aspect is ‘speed of transaction’, as agreed by all the respondents (100%). This is demonstrated in the findings from the qualitative study as follows:

*Speed is important. It helps to move the queue faster, and makes our queue management more efficient and productive. More customers could be served per till, and that means we are able to save the number of staff we need in total. (ME, Commercial Manager, M&S)*



*Speed is a very important matter. Most of the customers are in a hurry, so contactless is giving them the confidence while they are paying; they touch and the transaction is completed. (SH, Brand Manager, SSP)*

*In lunch time, people like to save as much time as they can, but waiting in a queue for paying for your food is not that pleasant [an] experience. But contactless cards save that time, and t'at's the best experience not only for [the] customer but also for the retailer. (HS, Bank Manager, HSBC)*

*Speed is the most important factor for us and for our customers. I mean, we have millions of passengers travelling around London with London Underground and London buses. So a fast movement of the queue is the most important thing. The customers are in such a rush! So contactless is a great effective solution in that time for sure. (SB, Station Supervisor, TfL)*

*...if we can serve a customer as soon as we can, if the payment has gone through, we can provide the receipt and the customer is happy, we are happy. (JA, Marketing Manager, Coffee Republic)*

*Quick transaction is important. Because the place our business is set up, people just come and go. They don't have that much time. (SR, Store Manager, Costa Coffee)*

*From their point of view, they want to place an order as soon as they can because 'it's human psychology.....so, speed actually helps to give them a satisfied experience. (MS, Business Manager, McDonald's)*

*When the customer has very short time, and they come, and grab the food, and then go, and they want this time to be as short as possible; at that moment, contactless payment makes it quick.. They just want to touch it and go. (WV, Customer Service Manager, Vital Ingredients)*

*This makes the transaction experience smoother and more effective and from a customer's point of view, it is easier. Having contactless has a good impact on the business. (ZS, Retail Manager, Boots)*

*The quicker it will be the better for me because that will save my time. (FG-A, Academics)*

*Yes, because everyone is rushing, so transaction should be faster.....I think it is very important, especially when you are living in London and everyone is so busy. (FG-B, MBA Students)*

*...very important because I 'don't want to wait all day long' I'm shopping in Asda; they make my transaction easier, faster the ' I'll definitely choose Asda even if I like Tesco.*

*...faster transaction saves a lot of time. (FG-C, Bus Drivers & Retail Staff)*

*Because everyone is busy so they do want everything quickly. Everybody is in a rush and they just want their product and go home.... Nobody will go to a supermarket where they have to wait for long. (FG-D, Office Workers)*

The qualitative findings not only establish perceived transaction speed as a measure of transaction experience but also help in supporting the definition of the construct adopted by the study. It is defined as the extent to which the prospective user of near field communication (NFC) perceives (Chen, 2008; Teo et al., 2015) it to save time (Collier and Sherrell, 2010; Dabholkar, 1996) and to improve the speed of transaction (Chen, 2008; Davis et al., 1992; Nguyen et al., 2018; Teo et al., 2015) during the transaction experience.

#### 5.2.1.1.2 Perceived Transaction Convenience

Perceived transaction convenience is defined in this research as the extent to which the prospective user of NFC perceives it to allow them to undertake the transaction with speed and ease (Berry et al., 2002; Chen et al., 2018; Collier and Sherrell, 2010; Duarte et al., 2018 Gupta and Kim, 2007; Seiders et al., 2000) and increased convenience (Chen, 2008; Chen et al., 2018; Teo et. al., 2015) during the transaction experience.

From the literature, it is evident that convenience is one of the most important factors influencing customers' purchase decisions (Jebarajakirthy et al., 2021; Torzadeh et al., 2002). Klaus and Maklan (2013) in their study documented how convenience- and transaction-related factors affect the overall experience of a customer. Thus, the researcher considered it a measure of transaction experience. The qualitative findings also state that 'convenience' is an important aspect of transaction experience. Some findings are presented below.

*When they come to us on their lunch break, they are in a hurry, and it is more than easy to pay with a touch. While shopping convenience is important, card payment always has this added advantage and contactless on top is even more quickly and easily. (ME, Commercial Manager, M&S)*

*Contactless is everything on customers' side. They just take out their cards, touch it and go. (SH, Brand Manager, SSP)*

*...you don't have to wait in queue for your change and not necessarily for the receipt unless you want it! One other thing that I would like to mention and I personally like that is I can see all the details of my expenses at the end of the month...and it helps the manager finance more effectively. (SH, Brand Manager, SSP)*

*Contactless is convenient of course. ... they don't need to worry how much money they have in their Oyster card or even if it is running low. They do not have to waste time in the ticketing machine to top it up; just use contactless and go! It is very convenient ... You can travel faster and hassle free with a peace of mind. (SB, Station Supervisor, TfL)*

*It is very convenient. I think most of the people now using the card payment with the contactless, I think it is for them now more convenient rather than cash payment or something. (SR, Store Manager, Costa Coffee)*

*...they just have to put the card in the machine and leave. Even these days, it is so convenient that customers come and firstly they ask about the contactless card system. (WV, Customer Service Manager, Vital Ingredients)*

*Normally, contactless doesn't take more than 15 seconds, so that's easy, especially for someone who knows how to do it. (ZS, Retail Manager, Boots)*

*You don't have to carry the money; you don't have to count money. It's a very easy access for shopping especially with family and children. (FG-A, Academics)*

*It is because of comfort and being able to be fast.... It is important because, for example, if I lose my wallet and I am able to pay with my phone so that would be quite convenient. (FG-B, MBA Students).*

The above findings not only validate perceived transaction convenience as a measure of transaction experience but also point out the factors that make up ‘convenience’ in a transaction. Another interesting finding from the qualitative study is that customers perceive ‘speed’ and ‘convenience’ in a similar manner and do not differentiate the two. According to a number of respondents, ‘convenience’ should not be separated from ‘speed’, as they are the same. Some responses are stated below.

*It's all same. Speed is convenience. (SH, Brand Manager, SSP)*

*Well, I guess speed and convenience plays the game the same way. (SB, Station Supervisor, TfL)*

*For me, speed and convenience are kind of similar. The reason I'll use contactless payment as a customer is because it's quite fast and smooth. A smooth transaction means it is fast (JA, Marketing Manager, Coffee Republic)*

*It makes easier for the customers at the checkout. It makes their experience more joyous and quicker. (ME, Commercial Manager, M&S)*

*I am grateful for contactless because I don't have to wait for all that time to pay. (FG-A, Academics)*

*It's basically the same as the speed. (FG-D, Office Workers)*

The above findings initially led the researcher to query whether or not to use ‘speed’ and ‘convenience’ as two separate constructs. However, after reviewing the literature (Berry et al., 2002; Chen, 2008; Chen and Li, 2017; Collier and Sherrell, 2010; Gupta and Kim, 2007; Jebarajakirthy et al., 2021; Machleit and Eroglu, 2000; Seiders et al., 2000; Teo et al., 2015; Wei et al., 2020; Yoon and Kim, 2007), and based on the definition of perceived transaction convenience, the researcher was convinced that the two constructs are quite different and do not mean the same. In the definition, ‘speed’ and

'ease' are combined to form 'convenience'. Similarly, Berry et al. (2002) claimed convenience was all about customers' perceptions of the time and effort involved in shopping. This is in contrast to some of the respondents who stated the two concepts to be similar, others differentiated the two saying-

*One other thing that I would like to mention and I personally like that is I can see all the details of my expenses at the end of the month even the very little transactions that are dealt with cash can be done by contactless cards and you can see the details. And it helps to manager finance more effectively. (HS, Bank Manager, HSBC)*

*You can travel faster and hassle free with peace of mind. No wonder we are promoting contactless travel so much. (SB, Station Supervisor, TfL)*

*It's very easy because they have to deal with getting the wallet out and pay it with the money, and they also don't need to do anything; they just have to put the card in the machine and leave. (WV, Customer Service Manager, Vital Ingredients)*

*It's a very easy access for shopping especially with family and children. (FG-A, Academics)*  
*It is because of comfort and being able to be fast. (FG-B, MBA Students)*

*If I lose my wallet and I am able to pay with my phone so that would be quite convenient. (FG-C, Bus Drivers & Retail Staff)*

The above statements from the participants confirm that 'speed' and 'convenience' can be very well conceptualised differently from each other. The respondents have mentioned 'faster payment' referring to speed and "ease of payment" referring to convenience which clearly classifies them as two different constructs. Chen (2008) first introduced the concept of perceived transaction speed and perceived transaction convenience in the context of m-payment and thus established them as two different constructs. A similar study by Gupta and Kim (2007), has been conducted for online transaction satisfaction whereas, customer attitudes toward the 'time' and 'effort' involved in online shopping are studied as two separate constructs. Researchers of the customer waiting literature have also pointed out the two most important factors during transaction for increasing customer satisfaction, i.e., save time and effort (Anderson, 1972; Briedis et al., 2021; Chen et al., 2018; Duarte et al., 2018; Gross and Sheth, 1989; Jebarajakirthy et al., 2021; Li, 2018; Mahapatra, 2017; Moghavvemi et al., 2018; Shamsi and Khan, 2018; Wei et al., 2020).

As described by Yoon and Kim (2007), perceived transaction convenience is a factor in determining whether or not a user adopts and uses information technology. From the above findings, some features of perceived transaction convenience can be outlined, such as not having to worry about the right change; making an easy transaction for example with an online or a contactless card; effective finance management; comfort of paying etc. Thus, it is very meaningful and valid to use perceived transaction convenience as a measure of transaction experience. The next section discusses perceived transaction enjoyment, which is another measure of transaction experience adopted in this study.

#### 5.2.1.1.3 Perceived Transaction Enjoyment

Perceived transaction enjoyment is defined in this study as the extent to which the prospective user of NFC perceives the transaction to be enjoyable in its own right, apart from any performance consequences that may be anticipated (Bedi et al., 2017; Davis et al., 1992; Gumussoy, 2016; Heijden, 2004; Knidiri, 2021; Lee and Tsai, 2010; Park et al., 2012; Ugwuanyi et al., 2021; Venkatesh, 2000; Zhou and Feng, 2017) during their transaction experience. To validate the definition and establish perceived transaction enjoyment as a measure of transaction experience, respondents were asked what were their perceptions towards perceived transaction enjoyment and how important was the concept in relation to transaction experience. Some of the major findings during the qualitative study are stated below.

*Well, it's quite fun to pay with contactless cards especially the other versions of contactless like the small card stuck to your phone or Apple Pay, digital wallet things like that. On the other hand, waiting in the queue for a shorter time is also joyous (ME, Commercial Manager, M&S)*

*I think that for my customers, when they are in a hurry, they've got one minute, and they make it within that one minute, that brings them happiness. (SH, Brand Manager, SSP)*

*When the transaction is easy and speedy, it ought to be enjoyable also. ...it does make your life simpler, easier, and enjoyable. (SB, Station Supervisor, TfL)*

*...when the customer is having quicker time in the payment system, they are happy. You don't need to worry about money for change, or the PIN code. (WV, Customer Service Manager, Vital Ingredients)*

*I think the best part is the time that it takes, which is very less. And the system we have in our store takes maximum 20 seconds. So that makes everyone happy including us. (ZS, Retail Manager, Boots)*

*...and even if you have your card with you, [you] sometimes forget the PIN number, that gives you enjoyment when you can use without PIN that time. (FG-B, MBA Students)*

From the above findings, it is evident that enjoyment plays an important role during transaction experience. Enjoyment as stated by the respondents; is caused by various factors, such as confidence, happiness, less waiting time, easy and hassle-free transaction, which also abide by the definition of perceived transaction enjoyment in this study. Similarly, in a study by Gumussoy (2016) and Holbrook and Hirschman (1982), experiences are claimed to be a mixture of affective, cognitive, and aesthetic factors such as happiness, confidence and self-satisfaction. This claim is further supported by Brakus et al. (2008) and Ugwuanyi et al. (2021), who believes that experiential marketing increases enjoyment. In addition to this, some participants added about the ‘touch and go’ advantage of contactless payment which makes the transaction experience enjoyable-

*...it's very enjoyable because you just touch and go; it's very easy to do. (FG-C, Bus Drivers & Retail Staff)*

*But when it comes to contactless, there is no extra charge for any amount of money, and on top of that, you don't need any PIN number. You don't have to wait for anything; you just touch and go. (JA, Marketing Manager, Coffee Republic)*

*The beauty of it is you just can touch and off you go! (HS, Bank Manager, HSBC)*

*Sometimes it is enjoyable. Sometimes because if they are in rush and from our side or customer side, sometimes by mistake if we press something, it is a very sensible thing. (SR, Store Manager, Costa Coffee)*

*....these days, they really enjoy paying with a touch. Some of our customers not only enjoy themselves but also try to show off to others... (ME, Commercial Manager, M&S)*

Hence, using a contactless payment, when you can simply ‘touch and go’, makes the transaction enjoyable according to the qualitative findings. Similarly, it is evident in the literature that technology is a reason for making a transaction experience enjoyable. A study by Langeard et al. (1981) claims the same in the context of self-service and ‘playing with machine’ alternatives. Holbrook et al. (1984), has similar opinion in the context of computer software and games. Colbert (2023) further extended the study and claims that enjoyment is generated with the use of novelty products or a latest technology. On the other hand, Davis et al. (1992) found that customers enjoy utilizing computer technology because of the pleasure they receive from it.

The last quotation above shows the fact that it could be even more enjoyable to some customers who would like to ‘*show off*’ the fact that they are just being sophisticated by completing their transaction using contactless payment. Therefore, it seems meaningful to say that perceived transaction enjoyment is a valid measure of transaction experience. The following section outlines the outcomes from a positive transaction experience in the light of the qualitative findings.

### **5.2.2 Outcomes of Transaction Experience**

In Chapters 2 and 3, various outcomes of transaction experience were outlined which relate to research question 1. Every single transaction experience matters to the organization to achieve the ultimate customer satisfaction and overall profitability of the organization, i.e., brand equity (Bitner and Hubbert, 1994; Danaher and Mattsson, 1994; Johnston, 1995, 1999). Since the outcomes outlined are from transaction experience, this study refers to the outcomes as transaction-specific and has defined them accordingly.

It is crucial to analyse the outcomes of a positive transaction experience for every single customer to gain their long-term commitment; as the financial return to customers who have already purchased from a business is five times greater than the return for customers who are purchasing for the first time (Chen and Qasim, 2021; Gupta and Kim, 2007). Based on the literature review, the researcher conducted interviews and focus groups (with semi-structured questions) to check whether or not the findings from the literature comply with the practical aspect. Also, the definitions of the outcomes adapted to the study are evaluated through the qualitative study.

It is to be noted that the researcher termed all the outcomes from the transaction experience as ‘transaction-specific’, as the outcomes are from transaction experience. Like a positive customer experience will lead to positive customer satisfaction (Bae et al., 2021; Bolton and Drew, 1991;



Boulding et al., 1993; Burns and Neisner, 2006; Grewal et al., 2009; Happ et al., 2020; Kim, 2005; Lu and Seock, 2008; Martenson, 2007; Meyer and Schwager, 2007; Ruefenacht, 2018; Sivadas and Prewitt, 2000; Verma and Sharma, 2018; Verhoef et al., 2009; Wibowo et al., 2021; Zaid and Patwayati, 2021), similarly way, a positive transaction experience will lead to a positive transaction-specific satisfaction, and the logic is similar for all the outcomes discussed below.

Although the concept of transaction-specific satisfaction (Anderson et al., 1994; Andaleeb and Conway, 2006; Bodet, 2008; Boshoff, 1999; Fornell et al., 1994; Homburg et al., 2005; Ji and Prentice, 2021; Johnson, 2001; Jones and Suh, 2000; Lee et al., 2018; Lien et al., 2017; Olsen, and Johnson, 2003; Veloutsou et al., 2005), transaction-specific trust (Ameen et al., 2021; Ba and Pavlou, 2002; Moorman et al., 1992; Hennig-Thurau et al., 2002; Resnick and Zeckhauser, 2001; Suh and Han, 2002, Sultan and Mooraj, 2001; Warrington et al., 2000), and transaction-specific brand equity (Olson and Johnson, 2003) exist in the literature, none of the other outcomes (transaction-specific reputation, transaction-specific perceived value, transaction-specific brand performance, transaction-specific brand personality, transaction-specific associations) have been studied as a ‘transaction-specific’ term.

However, as stated above, the researcher named all the outcomes as they are from the transaction experience. Thus, the authenticity of using the term ‘transaction-specific’ was explored in the qualitative study. When the respondents were asked what they understood by the term ‘transaction-specific’, they responded as follows.

*Something specific to transaction. That is you are talking about things that are related to transaction only.. nothing else. Transaction focused, I would say. (ME, Commercial Manager, M&S)*

*When a customer comes and they pay, when they take an item and they pay for it, it is a transaction for us. If they do another item, it would be another transaction. (SH, Brand Manager, SSP)*

*It's like something about a particular transaction... 'It's more about the transaction... [transaction-specific brand performance is] the performance of the company that is specific to the performance, not other things like, customer service. (HS, Bank Manager, HSBC)*

*To me, it feels like it is specific to the payment system..... Transaction-specific would mean is it only related to transaction experience, not the customer experience. (ZS, Retail Manager, Boots)*

*...[transaction-specific trust], that it is the trust which is specifically to transaction. (FG-B, MBA Students).*

*The thing happens at the moment of transaction... .. as a result of transaction (FG-C, Bus Drivers & Retail Staff)*

The above findings in regard to the meaning of ‘transaction specific’ are in line with the literature. According to Jones and Suh (2000), by ‘transaction-specific’ they mean ‘an encounter specific to transaction’, while Fournier and Mick, (1999) claimed that every transaction has an impact on the overall consumer experience in one way or another. Other researchers (Anderson et al., 1994; Andaleeb and Conway, 2006; Bodet, 2008; Boshoff, 1999; Fornell et al., 1994; Homburg et al., 2005; Hunt, 1977; Narteh, 2015; Oliver, 1977, 1980, 1993; Yi, 1991) portray transaction-specific as a post choice evaluative judgment of a specific purchase occasion.

Hence, from the literature and from the qualitative findings, it is meaningful to term the outcomes from transaction experience as ‘transaction-specific’ and taking into account both the perspectives, it can be stated that ‘transaction-specific’ means an outcome that is from a transaction and that is specific to a transaction or is transaction focused. Hence, it is an outcome that results from transaction experience and not from any other experience, such as customer experience, brand experience, and so on. Briefly, transaction-specific outcomes are those which result from a transaction experience. The following few sections examine the qualitative findings of some of the transaction-specific outcomes proposed by the researcher.

#### 5.2.2.1 Transaction-specific Satisfaction from Transaction Experience

As a general rule, customer satisfaction is considered an indicator of how well a product or service offered by a company satisfies the expectations of the consumer (Saleem and Rashid, 2011), and it is the total assessment of the good or service that a customer receives and the experience of using it (Jamal and Naser, 2002; Zaid and Patwayati, 2021). In this study, the particular case in question is transaction and transaction-specific satisfaction, which refers to a customer’s post-transaction

evaluation and assessment of the prior transaction experience (Anderson et al., 2004; Bae et al., 2021; Cadotte et al., 1987; Fornell, 1992; Kim, 2005; Labarbera and Mazursky, 1983; Oliver, 1997; Shankar et al., 2003; Wibowo et al., 2021) to form the norms of transaction-specific retail performance (Cadotte et al., 1987; Labarbera and Mazursky, 1983; Lee et al., 2018; Lien et al., 2017; Sulphrey and George, 2017; Zaid and Patwayati, 2021).

It seems logical to say that a positive transaction experience will result in transaction-specific satisfaction. In the existing literature, a number of authors (Anderson et al., 2004; Bae et al., 2021; Bolton and Drew, 1991; Boulding et al., 1993; Cadotte et al., 1987; Fornell, 1992; Happ et al., 2020; Kim, 2005; Labarbera and Mazursky, 1983; Lee et al., 2018; Lien et al., 2017; Meyer and Schwager, 2007; Oliver, 1993; Reicheld, 1996; Shankar et al., 2003, Sulphrey and George, 2017; Verma and Sharma, 2018; Wibowo et al., 2021; Woodruff et al., 1983; Zaid and Patwayati, 2021) established a clear and positive relationship between these two constructs. Similarly, the qualitative findings show very clearly that transaction-satisfaction is a result of a positive transaction experience-

*When customers undergo a positive experience, no wonder they will be happy and satisfied....we try to make sure every single customer undergoes an excellent experience at every touch point so as to create a pool of satisfied customers. (ME, Commercial Manager, M&S)*

*Obviously, everybody wants a good experience ... Like with the contactless, they're making it quickly, and they can finish within their own time; I think that makes them happy. (SH, Brand Manager, SSP)*

*Positive transaction experience means that you touch it, the gate opens, and you go through. Done! It makes you happy and gets you moving. You are satisfied with the experience - simple as that. (SB, Station Supervisor, TfL)*

*..... if they have a positive transaction experience, they will be satisfied and come back to this place. (WV, Customer Service Manager, Vital Ingredients)*

*I think a positive experience has its own magical effect. If someone comes to our store and leaves with a positive customer service, they would definitely come back to us, or they would*

*share with their friends and family how easy and convenient it is to be in our store. So that usually promotes and develops business. (ZS, Retail Manager, Boots)*

Then there were other respondents, mostly in managerial positions, who emphasized the importance of creating the best transaction experience in order to gain ultimate customer satisfaction (transaction-specific). Some relevant responses are presented below.

*Our customers will experience certain good things about our company, and they will be satisfied with their experience. And we try to make sure every single customer undergoes an excellent experience at every touch point so as to create a pool of satisfied customers. ...they definitely are very satisfied. (ME, Commercial Manager, M&S)*

*Overall, from my point of view, I would say they're very satisfied. They have a good perception. (HS, Bank Manager, HSBC)*

*We have to make sure that the technology we use is working properly so that the correct amount of money is deducted, the gate opens when it should, and also there are staff available to help in case of any errors that might obstruct a customer's journey. (SB, Station Supervisor, TfL)*

*..This is how we make sure our customers are feeling happy and safe which are our main important aspects... We're making sure 100% that the customers are safe and happy. (JA, Marketing Manager, Coffee Republic)*

*In McDonald's, we have installed a new system called 'chaos'. It's like though we have less people to work but there but we have enough machines to take the cards and do the transactions. We greet them and ask them what they want and tell them about the details of the food and also the service they want and make sure we serve them as quickly as possible. (MS, Business Manager, McDonald's)*

Thus, it is evident from the findings above, which are in line with the literature, that a positive transaction experience does have a great impact on customers' transaction-specific satisfaction. It is important to study this transaction-specific satisfaction, as in turn, it has a significant effect on transaction-specific reputation, which will be examined in the next section.

#### 5.2.2.1.1 Transaction-specific Reputation and Transaction-specific Satisfaction

In the previous section, the first transaction-specific outcome was referred to as satisfaction. It was important to study the construct to show its contribution to transaction-specific reputation. In this study, transaction-specific reputation is defined as the customer's overall evaluation of a firm (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017; Weiss et al., 1999) based on his or her dis/satisfactory reactions to the firm's communication activities followed by the transaction experience (Rose and Thomsen, 2004; Walsh and Beatty, 2007; Walsh et al., 2017).

The definition itself states that it is based on satisfactory reactions followed by the transaction experience. That is, the transaction-specific satisfaction obtained from transaction experience contributes to an organization's transaction-specific reputation. Some of the findings from the qualitative study point to the same hypothesis, as indicated by the following quotations.

*Satisfied customers are our assets. We always strive for a long-term relation with our customers...only satisfied customers can enhance and maintain our already built reputation.* (ME, Commercial Manager, M&S)

*Nowadays, everything is becoming so digitized and as everything is in your phone and the way everything is going, for a customer, seeing that the bank is following the same trend and providing the same facilities is definitely a good experience...for that I would like to say that the customers' experience and the impact they have, into the business, is very positive.* (HS, Bank Manager, HSBC)

*It will impact positively of course [transaction-specific satisfaction on transaction-specific reputation]. We make sure our customers are happy and the prime reason is our reputation. For gaining and maintaining the reputation of our company, we try our best to keep every single customer happy....so we must maintain that standard so that our reputation is not at stake.* (SB, Station Supervisor, TfL)

*..customer satisfaction is the main thing for us...if they are not satisfied with any of it, they wouldn't come back, so it is one of our key duties to make sure that they are satisfied.* (JA, Marketing Manager, Coffee Republic)

*The more customers are saying good the better our reputation. Because by getting there, it is just not only from the survey what we get. As a company, this is consecutively the last 7 years, this is the best coffee house in the UK. (SR, Store Manager, Costa Coffee)*

*If someone has a good experience about a company, he will tell more people good things about the company. (FG-D, Office Workers)*

It is apparent from the foregoing research that transaction-specific satisfaction and transaction-specific reputation are closely linked. Following the conclusions made above, it can be argued that an organization's transaction-specific reputation can be built by providing customers with satisfaction tailored to their transactions. Like with utilities, a positive business reputation and customer satisfaction are found to be related (Walsh et al., 2006; Walsh et al., 2017). Wang et al. (2003) discovered a substantial positive association between satisfaction in banking services and overall product quality.

Some of the respondents who were in management stated the importance of satisfaction and claimed it to be one of the marketing promotion tools. They also claimed that dissatisfaction could harm their reputation. To highlight the transaction-specific reputation, some of them talked about 'Apple Pay', which is one of the latest means of paying with contactless. Some of such statements are presented below.

*When they come and ask for contactless payment or Apple payment or Samsung payment and you can't give the opportunity, it's kind of shame for us. And as a world class company they must provide these kinds of opportunities. (MS, Business Manager, McDonald's)*

*...we always try to give our customers the best experience. When a group of friends come and one of them is happy, they go back and tell this to their friends, and also, they like to come back. (WV, Customer Service Manager, Vital Ingredients)*

*Some of the international cards, even though they are contactless, they need a signature. And for that, the business has to pay extra money. The UK debit card pays around 0.7% for every transaction whereas for their transaction, 3.8% is paid. So, that becomes a bit uncomfortable as even though they use contactless, they are not getting the kind of service they expect. (JA, Marketing Manager, Coffee Republic)*

The importance of studying transaction-specific reputation was to show its connection with transaction-specific perceived value, which is an antecedent to transaction-specific brand equity. The next section highlights the relationship between transaction-specific reputation and transaction-specific perceived value.

#### 5.2.2.1.2 Transaction-specific Perceived Value and Transaction-specific Reputation

People's perceptions of value have their origin in equity theory, which factors in the relationship between the customer's gains and the service provider's gains (Oliver and DeSarbo, 1988). Customer satisfaction and loyalty are determined (Martin-Consuegra, et al., 2007), and the general evaluation by the customer of the utility of a product, based on the perception of what is received and delivered, is considered (Zeithaml, 1988). Estimations of value have been shown to be a crucial aspect in customer decision-making (Arslanagic-Kalajdzic and Zabkar, 2017; Baker et al., 2002; Jeon and Yoo, 2021; Finextra, 2016; Milan and Toni 2012; Milan et al., 2013; Leppäniemi et al., 2017; Lindgreen and Wynstra, 2005; Parasuraman and Grewal, 2000; Rust and Oliver, 1994; Tai, 2011; TameBay, 2016) and composed of all-factors - qualitative and quantitative, objective and subjective - which together define the purchasing experience of the customer (Schechter, 1984; Zeithaml, 1988).

In this study, the transaction-specific perceived value which is derived from a company's transaction-specific reputation is examined and hypothesised as an antecedent to transaction-specific brand equity. It is defined as the overall assessment (Zeithaml, 1988) of customers' perceived benefits and customers' perceived sacrifices of a transaction with the product/service provider (Day, 2000; Gupta and Kim, 2007; McDougall and Levesque, 2000; Oliver and De Sarbo, 1988; Zeithaml, 1988) jointly formed through consumers' transaction experience (Gupta and Kim, 2007; Prebensen and Xie, 2017; Shechter, 1984).

To establish the relationship between transaction-specific reputation and transaction-specific perceived value, the respondents were asked how, according to them, a company's transaction-specific reputation could influence customers' transaction-specific perceived value. Some of the responses were as follows-

*Well, the reputation matters a lot when creating perceptions in the customers' minds. This is just one factor, but maybe it is the most important factor that influences customers' perceived value.* (SB, Station Supervisor, TfL)

*When they feel happy and safe and they have a good transaction experience, they will think that that company is a reputable company and will be willing to use their contactless cards.... Our reputation is in customers' minds. If customers feel safe and they get a faster transaction experience, they will come back to us. (JA, Marketing Manager, Coffee Republic)*

*If a customer has a good experience, they will have a good memory of our company. When they think about eating healthily, they will always have Vital Ingredients in their mind. That will make them come back. (WV, Customer Service Manager, Vital Ingredients)*

*Compared to someone who is not using contactless and someone who is, the difference is noticeable...I think they will have a positive perception about this. In a positive way, it has a very good impression on them because we would like every one of our customers to come back to us. (ZS, Retail Manager, Boots)'*

*If it's a worldwide brand, then the reputation of it is already in my mind, and even though there is a problem in my transaction, I would rely on them. (FG-A, Academics)*

*Like I said, I will get loyal customers. If I make them happy or give them a good experience, obviously they will come back and share their experience with their friends and family. So I will get more customers. (SH, Brand Manager, SSP)*

*I guess reputation is the most important aspect of any organization.... Most of our customers are brand loyal customers, and it is mostly because of our reputation as M&S. (ME, Commercial Manager, M&S)*

The literature shows a similar connection between the two constructs (Burlea and Balan, 2021; Harun et al., 2021; Leppäniemi et al., 2017). Sabate and Puente (2003) and Prebensen and Xie (2017) believed that the reputation of a firm is larger than the image of a brand and is therefore more likely to have an important influence on customer views. Some scholars argue that the relational dimension of perceived value links up with sentiments from a business' reputation (Lindgreen and Wynstra, 2005; Milan and Toni 2012; Tai, 2011), while Mudambi et al. (1997) argued that reputational characteristics such as 'world class,' 'technical leadership', and 'global presence' may affect customer impressions. The qualitative study produced similar perceptions.



*The impression about the organization would become much better because the fact that they are taking the step to be up to date with the technology, with the demand of the time, and that would be definitely a good thing for the customers. (HS, Bank Manager, HSBC)*

*From my personal experience, I think they are more comfortable with the contactless payment. It's comfortable, it's convenient, and also, it feels like they have a good impression because they're with the good technology, they're with the modern age, they are not backdated persons, and they're advanced, and also, the business is technologically developed. (MS, Business Manager, McDonald's)*

*They will think the retailer is modern which will affect their [reputation]. So, like they will think they have modern technology. (FG-B, MBA Students)*

In the above three sections, the first outcome of transaction experience, namely, transaction-specific satisfaction, and its contribution and connection to transaction-specific brand equity are detailed. The next section discusses the qualitative outcomes of transaction-specific trust, which is considered to be the second outcome of transaction experience.

#### 5.2.2.2 Transaction-specific Trust from Transaction Experience

The second direct outcome of transaction experience is hypothesised to be transaction-specific trust. In this study, transaction-specific trust is defined in this study, as the confidence (Ameen et al., 2021; Ballester et al., 2003; Bawack et al., 2021; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994), trustworthiness (Ballester and Alemán, 2005), and reliability (Ballester et al., 2003; Chaudhuri and Holbrook, 2001; Morgan and Hunt, 1994; Moorman et al., 1993; Morgan and Hunt, 1994) that one will find what is desired from a transaction rather than what is feared (Deutsch, 1973).

While exploring this particular concept, some findings emerged that put the focus on the three factors, namely, confidence, trustworthiness, and reliability, that result in transaction-specific trust and translate the meaning of the construct. The relevant findings are presented below.

*Transaction-specific trust would mean is it only related to transaction experience, not the customer experience. (ZS, Retail Manager, Boots)*

*Trust as a result of transaction.* (FG-C, Bus Drivers & Retail Staff)

*I believe that our customers already have that trust factor about our company. But then again, we need to make sure it is maintained as such. We make sure each transaction is safe, secure, and fault free. To make the whole transaction trustworthy every time for them [trustworthiness].* (ME, Commercial Manager, M&S)

*With the contactless or non-contactless payment, every time there is an issue, every transaction they make in our store, if it is not legitimate, then we take every single step to rectify that and the responsibility of going through the transactions. So, we don't let our customers face any problems, and they can easily trust us [reliability].* (ZS, Retail Manager, Boots)

*As the middle-aged, elderly aged people don't know how to use it so they have less trust in it. Just because 'they don't know how to use it, that's why they are less in numbers than the users, but the young and elderly aged people are kind of in a same level of trust [trust and reliability].* (MS, Business Manager, McDonald's)

*Well, our customers do trust us. We make sure they do. It is because we make sure there are no errors, and even there is, we try to resolve it. ...because they have experienced that it is safe and secure and works the same way the Oyster card does. [trustworthiness, reliability and confidence].* (SB, Station Supervisor, TfL)

Researchers (Agarwal and Prasad, 1997; Ameen et al., 2021; Alwi et al., 2016; Bawack et al., 2021; Chin and Marcolin, 2001; Corritore et al., 2003, Dutot, 2015; Gefen et al., 2003; Jarvenpaa and Todd, 1997; Karahanna et al., 1999; Komiak and Benbasat, 2006; Li et al., 2008; McKnight, 2005; McKnight et al., 2002a; Moody et al., 2017; Moore and Benbasat, 1991; Pavlou and Gefen, 2004; Patil et al., 2018; Pavlou, 2003; Szumski, 2020; Rogers, 1995; Wang and Benbasat, 2009) have studied transaction-specific trust and how it contributes a similar conception to the construct. To analyse the relationship between transaction-specific trust and transaction experience, the respondents were asked how, according to them, a positive transaction experience could lead to transaction-specific trust, and they responded with their respective views as follows.

*When people have a good experience from the transaction of a company, they begin to trust it.* (FG-D, Office Workers)

*We make sure each transaction is safe, secure, and fault free to make the whole transaction trustworthy every time for them. (ME, Commercial Manager, M&S)*

*...if we can guarantee the customers that the transaction will not take longer obviously, they will know after they have experienced it in our shop one time. If the transaction takes one minute the first time, they'll know it takes one minute. (SH, Brand Manager, SSP)*

*When it comes to a matter of money, the first thing that comes to mind is trust. (HS, Bank Manager, HSBC)*

*So, from using contactless when they see everything working as it should, they generate that trust factor Although we get many who still do not have trust in the contactless travel cap.... However, after experiencing that it works perfectly, they did get back that confidence in the technology and us also. (SB, Station Supervisor, TfL)*

*A few days ago, I went to a place and used my contactless. After I checked my bank, I found that the money was spent on a different company. So now there is a trust issue. Now I don't trust them, and I would never go back to them. (JA, Marketing Manager, Coffee Republic)*

*When the customers come and get the right food and get the customer service in the right order and go through the easy and convenient and successful payment system, they have some kind of trust that makes them come back to us almost every single day. (MS, Business Manager, McDonald's)*

*When you know the way that people are treating you, they are delivering your product and the service, and they are all good, of course they are going to have trust and going to come back. And this is the biggest marketing process we can do.... In this way, we show them that 'We trust you so that you can trust us back So, we believe that we are better losing some pounds rather than losing a customer. (WV, Customer Service Manager, Vital Ingredients)*

*With the contactless or non-contactless payment, every time there is an issue, every transaction they make in our store, if it is not legitimate, then we take every single step to rectify that and*

*the responsibility of going through the transactions. So we don't let our customers face any problems, and they can easily trust us. (ZS, Retail Manager, Boots)*

*Like from previous experience.... If they are not happy with the product, they will come for refunds or exchanges. They then trust the company that they do refunds and exchanges without any problems. (FG-B, MBA Students.)*

*First, you have to have the experience, then comes trust. If you don't use it you won't have the experience, and that's when you won't have trust. (FG-C, Bus Drivers & Retail Staff)*

*I think that trust is something relative because by having good experience, if you want to gain the trust but somehow for any incident if that trust breaks, then I think that customer would not like to come back there. (FG-D, Office Workers)*

From the above findings, a clear and positive relationship can be established between transaction experience and transaction-specific trust. Similarly, in the literature, trust in transactions is considered to be the most important factor, and especially while paying with a contactless card, there is a lot of trust involved from the customers' perspective (Dutot, 2015; Wang, 2008). According to a number of researchers (Ameen et al., 2021; Alwi et al., 2016; Bawack et al., 2021; Dwyer et al., 1987; Ganesan, 1994; Garbarino and Johnson, 1999; Krishnan, 1996; Moody et al., 2017; Nor et al., 2011; Patil et al., 2018; Szumski, 2020; Wang, 2008), trust is influenced by the consumer's past experience with the brand/company/technology. According to a study by Lai et al. (2011), the experience of using a type of technology was one of the determinants of the overall trust in the technology and the organization itself. Thus, based on both the literature and the qualitative findings, we can see that transaction-specific trust is an outcome of a positive transaction experience. In the following section, we will look into the third outcome of a positive transaction experience: transaction-specific brand performance.

### 5.2.2.3 Transaction-specific Brand Performance from Transaction Experience

In this section, the qualitative findings of transaction-specific brand performance are discussed, which is proposed to be the third outcome of a positive transaction experience. In this study, transaction-specific brand performance is defined as the consumer's judgment about a retailer's fault- and hassle-free transaction experience and the overall perceived effectiveness of the transaction (Hult et al., 2008; Lassar et al., 1995; Punjaisri and Wilson, 2017; Venkatraman and Ramanujam, 1986).

Hence, fault-free and hassle-free transactions are considered a measure of a company/retailer's effective performance. Since the term is new and customised to this study, the researcher aimed to explore the concept in the qualitative study to support the theoretical meaning of the construct. When the respondents were asked about the concept of transaction-specific brand performance, they responded as follows.

*It is the journey that goes through where your experience of doing some financial transactions is much easier, convenient! [hassle free transaction] (HS, Bank Manager, HSBC)*

*[It means] not making any kind of mistake and being efficient. [fault-free and effective transaction] (FG-A, Academics)*

*So, they will know from their previous experience that M&S has card machines working properly, they charge the correct money, the card doesn't get stuck or hang in the machine; things like that. [fault-free and effective transaction] (ME, Commercial Manager, M&S)*

*They can serve more customers because of this. It makes the whole process smooth, transparent. [hassle free transaction] (HS, Bank Manager, HSBC)*

*[Transaction-specific performance means] the money taken is correct, the gates are opened properly, no hassle, no fault in the transaction process, and they get that positive perception. [hassle free, fault free and effective transaction] (SB, Station Supervisor, TfL)*

*Because there are so many competitors. That is why always before we open, we make sure that everything is working properly. [effective transaction] (SR, Store Manager, Costa Coffee)*

*It's easy because once you have less hassle in terms of the transaction environment, a customer is not only satisfied, but they would also love to come back to us. [hassle-free transaction] (ZS, Retail Manager, Boots)*

From the above findings, it can be clearly seen that the qualitative study has similar findings (specified in brackets) as in the literature (Briedis et al., 2021; Duan et al., 2021; Gill and Kim, 2021; Hult et al., 2008; Lassar et al., 1995; Nguyen et al., 2021; Shi et al., 2021; Venkatraman and Ramanujam, 1986)

and the definition. The next step was to analyse the relationship between transaction experience and transaction-specific brand performance, and the respondents showed a clear and positive relationship between the two constructs. Some of the responses are given below.

*When customers are happy and they are satisfied with their transaction experience with us, definitely they will have positive perceptions about our performance. So, they will know from their previous experience that M&S has card machines working properly, they charge the correct money, the card doesn't get stuck or hang in the machine; things like that. So, every time they have had an experience with us, they will develop these positive perceptions in their minds about our performance. (ME, Commercial Manager, M&S)*

*If the product work properly our customers will have pleasant experience, it means they are having good experience from provider. It's just to be sure that the transaction they're doing, the way they are handling their customers, there is accordance with the banking in requirements and complaints, these all have to be in place! And also, they have to have the right machine to work. (HS, Bank Manager, HSBC)*

*When they experience that the transaction is occurring, as it should, the money taken is correct, the gates are opened properly, no hassle, no fault in the transaction process, and they get that positive perception. So, the performance is largely affected by the transaction. Fault- and error-free transaction is very important for that reason. (SB, Station Supervisor, TfL)*

*Customer positive transaction experience will only happen when the transaction goes like they want to have it. So, when you say it should be fault free, it's a mechanical term. (JA, Marketing Manager, Coffee Republic)*

*We always make sure our all the machines are working. Also, we are aware when they are ready to pay and ask the customers how they will pay. So, they can make sure they are not making any mistake whether it is contactless or pay. My staff are checking, double checking before they press anything. (SR, Store Manager, Costa Coffee)*

*If you see the company is performing well and also creating a good brand image in the market, there is a high chance the customers would come and also create and generate more customers for the business.. (MS, Business Manager, McDonald's)*

*It's easy because once you have less hassle in terms of transaction experience, a customer is not only satisfied, but they would also love to come back to us. (ZS, Retail Manager, Boots)*

The responses are quite similar to what was in the literature (Briedis et al., 2021; Duan et al., 2021; Gill and Kim, 2021; Nguyen et al., 2021; Shi et al., 2021; Smith et al., 2017). For example, Woodruff et al. (1983) stated that consumers' prior experiences may bias their perceptions of brand performance. Similarly, many other researchers (Cadotte et al., 1987; Day 1977; Eysenck and Keane, 1990; Labarbera and Mazursky, 1983; LaTour and Peat 1979, 1980; Oliver, 1997; Punjaisri and Wilson, 2017; Smith et al., 2017) have claimed a positive relationship between transaction experience and transaction-specific brand performance.

Another finding from the qualitative study above which is also in line with the literature (Agarwal et al., 2003; Briedis et al., 2021; Calantone et al., 2002; Deshpande' et al., 1993; Nguyen et al., 2021; Noble et al., 2002; O'Cass and Ngo, 2007; Punjaisri and Wilson, 2017; Weerawardena et al., 2006) illustrates that much has been made of the influence of innovation on a firm, and it was suggested that innovation leads to higher performance. The respondents claimed that having a fast, reliable, secured, and modern and innovative technology like contactless payment has a significant impact on transaction-specific performance. In the following section, the fourth outcome of transaction experience, transaction-specific brand personality, is discussed in light of the qualitative findings.

#### 5.2.2.4 Transaction-specific Brand Personality from Transaction Experience

Transaction-specific brand personality is hypothesized in this study as the fourth outcome of a positive transaction experience. Like a human personality, brand personality is also very difficult to study, as it is a complex behavioural aspect. The higher the concordance between the brand's personality and the individual or the ideal one (brand personality), Sirgy (1982) claimed, the bigger the brand's preference. Aaker (1996a) stated that a brand personality a customer's view of a brand and helps to form and construct meaningful brand relationships and contributes to a variety of aspects of brand personality.

This study defines transaction-specific brand personality as a set of human characteristics associated with a transaction/payment method (Aaker, 1997; Grohmann, 2009) mostly in a symbolic way to differentiate the organization providing the transaction experience from its competitors (Aaker, 1996; Conejo et al., 2017; George and Anandkumar, 2018; Liao et al., 2017) so as to deliver a vivid and

more personal meaning to the consumers (Biel, 1993; Keller, 1993; Keller and Richey, 2017; Siguaw et al., 1999).

To prove the authenticity of this construct and establish the definition adapted for this study, the researcher asked various questions to obtain the meaning of the construct, and received some useful responses stated below.

*I guess ladies and teenagers are quite imaginative and do this sort of personalising a brand. However, if asked, anyone could personalise and associate a certain brand or technology in your case.* (ME, Commercial Manager, M&S)

*When you know something is very up to date, and when you know you have to go through a process that is not manual, that gives you an instant set of impressions.* (HS, Bank Manager, HSBC)

*Some of the associations we develop in our minds lead us to personalise the brand.* (SR, Store Manager, Costa Coffee)

*The machine does not have a brain to do something harmful on its own; it's human beings who abuse this. If this was a human being, then the risk is fraudulent activities. The whole point of introducing Chip and PIN is to secure your transaction. It would be very trendy and attractive if it was a human being.* (HS, Bank Manager, HSBC)

*Even though you think about it in a different way, that transaction will be psychology-oriented: he's fast, smooth, and classy. That's why the young people use it more.* (JA, Marketing Manager, Coffee Republic)

*Yes, it is important, but from security, how would that link with personality? Well maybe we can say you have perception it is safe and secure, so in that way we can say it is a safe personality.* (FG-B, MBA Students)

From the qualitative study, the exact human characteristics that are associated with contactless payment (i.e., smart, upper class, sophisticated, reliable and simple) are also explored. Thus, the researcher strived to discover how customers perceive a transaction with contactless payment and how



they characterize their transaction experience in terms of a transaction specific brand personality – smart, sophisticated, reliable, simple, exciting, or upper-class (Aaker, 1996) – to establish the legality of the construct.

It was interesting to see that most of the respondents understood the meaning of the construct very easily, and only a few of them only needed a slight hint to understand the concept clearly. However, in line with Aaker's (1996) dimensions of brand personality, they associated various characteristics in relation to contactless payment, and some of them added some new personality traits for transaction-specific brand personality. The respondents were asked to imagine contactless technology as a human being and to state the personality traits for a transaction-specific brand personality. Some of the traits they mentioned are stated below/

*Active, innovative, professional, busy, easy going, carefree, trustworthy, passionate, posh, exciting.* (ME, Commercial Manager, M&S)

*Young and professional.* (SR, Store Manager, Costa Coffee)

*Professional, fast.* (HS, Bank Manager, HSBC)

*Quick and easy. Oh, you mean humanising it. Ok. Young, professional, outgoing, yeah that is all I can think of.* (SB, Station Supervisor, TfL)

*Posh, modern, technology-oriented, sophisticated.* (JA, Marketing Manager, Coffee Republic)

*Posh, young and sophisticated.* (SR, Store Manager, Costa Coffee)

*It would be smart, and I think it is of my age. And it'd be intelligent and modern.* (MS, Business Manager, McDonald's)

*It would be a very effective person and fast. It would be in its 30s, and it would be a woman. It would be a very responsible and reliable person.... Fun, cool, simple, stylish, professional, intelligent, and sophisticated.* (WV, Customer Service Manager, Vital Ingredients)

*Easy, simple, young, exciting.* (ZS, Retail Manager, Boots)

*Simple, straight, modern, digital, up to date.* (FG-A, Academics)

*Digital, up to date, loyal, reliable, trustworthy, efficient, and effective.* (FG-B, MBA Students)

*Kind, nice, modern, calm, sophisticated.* (FG-C, Bus Drivers & Retail Staff)

*Clever, smart, small, professional, quick, intelligent, young and male.* (FG-D, Office Workers)

It was very interesting to see how the qualitative findings aligned with the literature to help understand the concept of transaction-specific brand personality. Authors (Azoulay and Kapferer, 2003; Belk, 1988; Conejo et al., 2017; George and Anandkumar, 2018; Keller and Richey, 2017; Liao et al., 2017; Oklevik et al., 2021) have suggested that brand personalities allow the customer to identify with a brand and personality through the brand, as people tend to see things as part of their 'self.' In relation to a brand, a consumer can also identify himself/herself with the brand based on the suitability of his/her own personality (Louis and Lombart, 2010; Sirgy, 1982), which is exactly what the respondents did.

The personification of objects is thought to be a human instinct based on the notion of anthropomorphism. Authors (Choi et al., 2017; Freling and Forbes, 2005; Geuens et al., 2009; Grewal et al., 2017; Keller and Richey, 2017; Maehle et al., 2011; Plummer, 2000; Ranfagni et. al., 2016) have proposed a 'brand persona' approach that takes advantage of human traits to describe brands. All direct and indirect brand contacts develop and influence the consumer's views of the brand personality attributes (Grewal et al., 2017; Oklevik et al., 2021; Plummer, 2000). This direct or indirect contact, that is, the transaction experience with the brand, which in this study is contactless technology, thus helps customers to personalise the latter (contactless pay/technology). Some of the qualitative findings presented below demonstrate a clear and positive relationship between transaction experience and transaction-specific brand personality.

*So, after undergoing an experience paying with contactless, they might generate certain personality factors about the brand or the technology if they do at all. I guess ladies and teenagers are quite imaginative and do this sort of personalising a brand. However, if asked, anyone could personalise and associate a certain brand or technology in your case. But for that you need to have experienced it, tasted it, and felt it. Only then can you associate it with a person.* (ME, Commercial Manager, M&S)

*Through experience we create an image of the entire experience including every element and every detail. Some of the associations we develop in our minds lead us to personalise the brand.* (SR, Store Manager, Costa Coffee)

*So, when you experienced something, you develop some perceptions in your mind. Only after you have made a contactless payment can you imagine it as a person and say how the person is. You need to have it used first for that.* (SB, Station Supervisor, TfL)

*Well, maybe we can say you have perception [that] it is safe and secure, so in that way, we can say it is a safe personality.* (FG-B, MBA Students)

*If you use this, then, you get to purchase faster and personalise it as a fast and active person.* (FG-C, Bus Drivers & Retail Staff)

Hence, the qualitative findings reveal not only some of the transaction-specific brand personalities, such as safe, active, reliable, ‘posh’, modern, sophisticated, young, and so on, but also, they show that for the individual to develop such personality traits, they must first have experienced it (transaction experience). In a similar way, it is evident from past studies that personality traits are a result of prior use or consumption resulting in an experience (Aaker, 1997; Choi et al., 2017; Keller, 1993; Oklevik et al., 2021; Plummer, 1985, 2000; Shank and Langmeyer, 1994; Stancu et al., 2021) and that a brand’s human personality traits result from any direct or indirect contact an individual has with the brand. A study by Herskovitz and Crystal (2010) shows how the consumers relate to a ‘brand-persona’ (p. 21) when interacting with the brand, and this facilitates the identification processes by which they see themselves in a brand, or, vice-versa, they see a brand in themselves (Ranfagni et al., 2016). In the following section, the fifth and final outcome of transaction experience, namely, transaction-specific associations, is discussed.

#### 5.2.2.5 Transaction-specific Associations from Transaction Experience

When it comes to brand associations, according to Emari et al. (2012), it concerns what a customer thinks of a brand, whether it is favourable or negative. Past studies (Emari et al., 2012; Füller and Bilgram, 2017; Keller, 2003; Kempf and Smith, 1998; Krishnan, 1996; Kootenaie and Kootenaie, 2021; Lemon and Verhoef, 2016; Pansari and Kumar, 2017; So et al., 2017; Yang et al., 2015; Zha et al., 2020) have shown that associations consist of previous brand encounters and involve the direct

experience of a customer's buying and consuming the brand, hence, making a major contribution to the establishment of brand associations.

Thus, after reviewing the literature presented in detail in Chapter 2, transaction-specific association is defined as the informational nodes linked to the brand node in memory (Aaker, 1991; Emari et al., 2012; Füller and Bilgram, 2017; Keller, 1998; Motta, 2021) that contains the meaning of the brand/payment instrument (Keller, 1998) including the payment procedure of the company and is related to the information (Emari et al., 2012; Osselaer and Janiszewski, 2001) on what the customer thinks about their entire transaction experience (Emari et al., 2012; Keller, 1998). Furthermore, in Chapter 3, it was hypothesized as an outcome of transaction experience. To analyse this particular hypothesis, respondents were asked how customers' positive experience could become the foundation for creating positive associations about a company in their minds. Some of the responses relevant to this study are presented below.

*It is the same as how they perceive the personality. So, after undergoing a transaction, they will have other things in their mind also. These other perceptions contribute to associations in their mind. So, I would say the personality factor is also one of the associations they have in their mind. So, I believe our customers have associations regarding excellent customer service, quality, refund policy... I don't know – it depends on person to person really. (ME, Commercial Manager, M&S)*

*It's swift, efficient, and secure. It comes from the experience that you have throughout having this card. From receiving the card, from using it, to the experience of having this, it'll give you the perception of how swift and handy it is! (HS, Bank Manager, HSBC)*

*After the experience, customers will generally have some positive and some negative perceptions about contactless travel in your case. They will probably find it enjoyable, easy, and hassle free, or they might think it is a confusing, non-secured way of payment and so on. (SB, Station Supervisor, TfL)*

*When a customer has their transaction, they think. 'It's fast enough, reliable enough, the service I am getting is ok'. This sort of ideas they get from us during the transaction. (JA, Marketing Manager, Coffee Republic)*

*When a customer has a feeling that ‘everything is ok, the transaction is going well and I don’t need to worry about it, everyone is treating me good’, they would like to come back again. Our whole company is basically standing on this experience including transaction experience. (WV, Customer Service Manager, Vital Ingredients)*

*During the rush hour, most of our customers come with their lunch bag, and they just want to come and get the stuff; they don’t want to spend any extra minutes because they are all on the clock. Having a contactless payment and having a self-checkout plays a significant part. They just want to get their stuff and leave. So the whole process has a good perception. (ZS, Retail Manager, Boots)*

*So from experience, you have certain things in your mind about a brand or about a company.... Experience is the main thing for creating all kinds of perceptions, I would say. If you don’t know about a brand or a company, how would you have thoughts and feelings about it? (FG-B, MBA Students)*

*Having experience is important for that. You cannot say something is true if you have not experienced it. (FG-C, Bus Drivers & Retail Staff)*

The above responses show a clearly positive relationship between transaction experience and transaction-specific associations. In the literature, a stronger link between the two constructs is evident. Keller (2003) argued that direct experiences are one of the most important ways to build strong brand characteristics, and this ultimately generates/forms customer memory associations. Meanwhile, Braun (1999) and Robertson et al. (2021) further stated that over time, consumer relations with brands related with certain previous events in their life and kept in their long-term memory would be likely to create uniquely personal ties. A bolder argument by Aaker (1991) asserted that a positive and pleasant customer experience is the basis for establishing favourable brand associations. Thus, from their prior experience of a brand, customers form a set of associations in their memory while marketers try to create positive brand associations to position their brands in customers’ minds (Keller, 2003; Motta, 2021).

While undertaking the qualitative study, the researcher was keen to find out what particular transaction-specific associations could have a strong impression on the customers’ mind after going

through a transaction experience. The interviews and focus groups revealed several exciting transaction-specific associations. Some of these transaction-specific associations are presented below.

Wi-Fi logo	fast moving queue	quick pay	easy pay
enjoyable	secured	reliable	modern technology

The relationship between prior/direct experience and the formation of brand associations has been studied by a number of authors (Alba and Hutchinson, 1987; Berry, 2000; Broniarczyk and Alba, 1994; Fazio and Zanna, 1978; Grace and Cass, 2004; Havlena and Holbrook, 1986; Hoch and Deighton, 1989; Keller, 2003; Kirmani et al., 1999; Motta, 2021; Pansari and Kumar, 2017; Lemon and Verhoef, 2016; Robertson et al., 2021; Smith and Swinyard, 1982; So et al., 2017; Tolbert and Swaminathan, 2006; Yang et al., 2015; Zha et al., 2020) and shows a clear, strong, and positive link between the two constructs.

Hence, based on the literature and similar findings from the qualitative study, the research shows there is an established relationship between transaction experience and transaction-specific associations. After analysing some of the outcomes from transaction experience, the effect of these outcomes on transaction-specific brand equity is explored next. This will help to justify research question 2 and show the impact of transaction experience and transaction-specific brand equity, considering how the transaction-specific outcomes create a link between the two constructs. Hence, the next section discusses the antecedents of transaction-specific brand equity.

### **5.2.3 The Impact of Transaction Experience on Transaction-specific Brand Equity- (Antecedents to Transaction-specific Brand Equity)**

Transaction-specific brand equity in this study is defined as the differential effect (Barwise 1993; Keller, 1993; Keller and Brexendorf, 2017) that retail brand knowledge (from the transaction experience) has on consumer response to the marketing of that retail brand (Keller, 1993; Keller and Brexendorf, 2017) and the added value to that retail brand as perceived by a consumer (Aaker, 1991; Broniarczyk and Alba 1994; Keegan et al., 1995; Park and Srinivasan 1994).

In the previous sections, the outcomes of a positive transaction experience (RQ1) were discussed, and the relationships between them were established. Next, in the following sections, the researcher analyses the impact of those outcomes on transaction-specific brand equity, as these have been proposed to be the antecedents of transaction-specific brand equity, reflecting the final research question (RQ2). After confirming these findings with the findings from the literature review as discussed in Chapters 2 and 3, a qualitative study was undertaken to further investigate the relationships between transaction-specific brand equity and its antecedents. The first antecedent of transaction-specific brand equity is proposed to be transaction-specific perceived value, which will be discussed in the next section.

### 5.2.3.1 Transaction-specific Perceived Value and Transaction-specific Brand Equity

Past studies have suggested perceived value as a stronger predictor of behavioural intentions than either satisfaction or perceived quality (Cronin et al., 2000). This belief has led some researchers (Anselmsson et al., 2017; Baldauf et al., 2003; Bell et al., 2005; de Chernatony and Segal-Horn, 2003; He and Li, 2011; Jahanzeb et al., 2013; Kim and Kim 2004; Malik 2012; Liu et al., 2015; Parasuraman and Grewal, 2000) to test perceived value as a vital antecedent of a brand's equity. Similarly, Matthews et al. (2014) and Martin and Brown (1990) conceptualized brand equity as having five dimensions, and perceived value is one of them.

Based on the literature, the researcher carried out the qualitative study to explore the relationship between transaction-specific perceived value and transaction-specific brand equity. Interestingly, the respondents responded in line with the literature and showed the significant impact that transaction-specific perceived value had on transaction-specific brand equity. Some of the responses are presented below.

*Positive perceived value especially of a company's reputation is very important for developing brand equity. Like if our customers have positive perceived value towards M&S, they are likely to become brand loyal to M&S and come back again and again. Also, there is this word of mouth added advantage. There are many tourists coming to our store, as they have a positive perceived value for M&S maybe heard from friends and family living here. (ME, Commercial Manager, M&S)*

*They will come back [if perceived value is positive]. They will back more of their friends and family. They will recommend us to them. (SH, Brand Manager, SSP)*

*If it is a financial institution and they meet the expectations and they are doing it to make the 'usto'er's experience better, that makes your company more trustworthy towards them. And this sets their brand equity higher; so, does the brand value, as they are more chosen by the customers. (HS, Bank Manager, HSBC)*

*Positive perception towards a company does increase the brand equity - no doubt. The London Underground system is the cheapest, fastest, and easiest way to travel around London. However, we do make sure the perception is positive; otherwise, there will be an impact on our reputation. (SB, Station Supervisor, TfL)*

*If a customer has a good perception about our business or about this coffee shop, about this particular branch, always they have colleagues, new colleagues, friends, and families. So, even sometimes, what we have seen on their day off they might be going somewhere but they pass our shop, they come with the family, they spend their time. We get more customers. (SR, Store Manager, Costa Coffee)*

*It's not just the contactless that contributed to the brand value or equity; it's also the person behind this. Every single one of us is equally trained, and every now and then we go to train and coach. So having an easy and simple way to pay along with a trained and well-prepared staff member is a positive combination, and that can create a good perception. (ZS, Retail Manager, Boots)*

According to many researchers (Aaker, 1996; Anselmsson et al., 2017; Che Nawi et al., 2020; Farquhar, 1989; Jahanzeb et al., 2013; Juga et al., 2018; He and Li, 2011; Keller, 1993; Liu et al., 2015; Ng et al., 2014; Liu et al., 2015; Ruan et al., 2020; Shen et al., 2021), perceived value is a 'core/primary' facet and is considered a cornerstone of most CBBE frameworks. Therefore, based on the literature and supported by data from the qualitative study, it can be confirmed that transaction-specific perceived value is an antecedent to transaction-specific brand equity. In the next section, the relationship between transaction-specific trust and transaction-specific brand equity is discussed.



### 5.2.3.2 Transaction-specific Trust and Transaction-specific Brand Equity

In the previous section, the first antecedent to transaction-specific brand equity was examined. In this section, the second antecedent to transaction-specific brand equity will be explored, which in this study is termed 'transaction-specific trust'. According to Mallat (2007) and Shin (2010), trust in the transaction enhances intention to buy resulting in more purchases and hence enhancing the overall brand equity. On the other hand, Ballester and Alemán (2005) analysed the role of brand trust in the development of brand equity by examining the relationships network in which brand trust is embedded, and specifically the relationships that it has with its main antecedent and the main asset of brand equity, namely, brand loyalty.

In this study, the researcher was interested in transaction-specific trust and its relationship with transaction-specific brand equity, and therefore, carried out a qualitative study to gather more specific evidence relevant for this particular study. During the in-depth interviews and focus groups, the respondents were asked to explain the role of customers' transaction-specific trust towards a retailer in the development of transaction-specific brand equity, and they showed a positive response that clarified transaction-specific trust as an antecedent to transaction-specific brand equity. Some of such responses are stated below.

*When customers trust a company, they will go there often and spread the trust factor to others. More customers mean more profits, more revenue, and better reputation and image. Moreover, trust is an asset for an organization, for sure adding value to the brand. (ME, Commercial Manager, M&S)*

*The reason is the same - that there will be more customers coming back to add to the brand equity, but in case of the trust factor, I would say the word of mouth is the main reason. (SH, Brand Manager, SSP)*

*If there is trust established by the services they provide to their customers, I think, the biggest challenge is to retain that, to maintain that. So, we want to stick to our existing customers and hold their trust which already has been established. Because if you look after that, the recommendations will come. (HS, Bank Manager, HSBC)*

*Trust is an asset to any organization and for us, too. When customers have trust in us, it means life is easier for both the parties. With trust, the customers will be more confident and travel faster with less tension, less things to worry about....queue management is effective. We also require less staff to manage and deal with suspicious queries. (SB, Station Supervisor, TfL)*

*It's easy. If you don't feel confident or you don't trust the place you transact, 'you don't go there anymore. (JA, Marketing Manager, Coffee Republic)*

*As I told you, trust is a very important thing because, they trust us, that's why they come every day. Maybe sometimes twice a day, three times a day or maybe more with family or with friends. So, it is clear with our company, if they don't trust us, they will not come, or they wouldn't come back. (SR, Store Manager, Costa Coffee)*

*When they come in, they have the thought in mind that no one else in this area will give them the accurate and quick service they want, and also, we have this opportunity of a technology advanced payment process. So, these things are behind it. Once you can look after all these factors, then you can look after the customer service as well. And this way, the satisfied customers will bring us more customers. They will be working as our brand ambassador without them knowing. (MS, Business Manager, McDonald's)*

*If the customers trust us, they will come back; if they come back and purchase more, our profit will increase. (WV, Customer Service Manager, Vital Ingredients)*

*I think it's all about trust, especially in our company. We always say that we can be trusted. That starts the moment you step in to the moment you step out. Every single experience you get through the company, it relates to trust; the product you choose, the item you want to buy, the process of payment we have - everything involves trust. We value and admire it. (ZS, Retail Manager, Boots)*

*Obviously, trust is important especially for making the customers come back again and again. Also, to beat the competition. So, I would say it is one of the most important aspects. (FG-A, Academics)*

*Yes, for me the same; it is very important for companies and their brand equity. (FG-B, MBA Students)*

*It will affect in many ways. If they trust you, you are going to have more customers and have a better position in the market. (FG-C, Bus Drivers & Retail Staff)*

*The more customers they will have, the more profit they will have. (FG-D, Office Workers)*

In line with the qualitative study findings, the literature indicated a similar relationship between the two constructs (Badenhop and Frassetto, 2021; Biedenbach et al., 2019; Ebrahim et al., 2020; El Naggari and Bendary, 2017; Han et al., 2015; Manzoor et al., 2020; Shin, 2010). Hiscock (2001, p. 1) claimed, “The ultimate goal of marketing is to generate an intense bond between the consumer and the brand, and the main ingredient of this bond is trust”, while Mohamed and Daud (2012) predicted that there is statistical significance that brand trust predicts brand equity. Furthermore, Liao and Wu (2009) claimed that trust is a dimension of brand equity. Thus, the literature and from the qualitative findings confirm that transaction-specific trust is an antecedent to transaction-specific brand equity. In the next section, the relationship between transaction-specific brand performance and transaction-specific brand equity will be analysed.

#### 5.2.3.3 Transaction-specific Performance and Transaction-specific Brand Equity

In the previous section, it was confirmed that transaction-specific trust is the second antecedent to transaction-specific brand equity. This section will discuss the relationship between transaction-specific performance and transaction-specific brand equity and will establish transaction-specific performance as the third antecedent to transaction-specific brand equity, based on the findings from the qualitative study.

Authors like Aaker (1996), Keller (2008), Jeon (2017), and Lasser et al. (1995) claimed that with proper management, brand value could be produced and developed with some features that go beyond or are attributable to customer satisfaction with the product’s functional performance. Keller (2008, 2020) articulated the concept of brand equity and identified several components, with brand performance considered one of the major components of brand equity. Due to similar indications from the literature, the researcher proposed transaction-specific performance as an antecedent to transaction-specific brand equity and hence conducted a qualitative study to confirm the relationship. When the respondents were asked how transaction-specific performance could affect transaction-specific brand

equity, they mostly showed positive responses that were in line with the existing literature. Some of the responses are presented below.

*Better performance of a company makes it not only more effective and increases the productivity but also it helps to gain customer trust and loyalty. (ME, Commercial Manager, M&S)*

*Performance is important, and also, trust is involved in performance. Fault-free and hassle-free accurate transactions can not only make customers happy but gain trust and confidence in our transaction procedure. Better performance leads to higher revenue not only in terms of customer satisfaction, which is added revenue for us. (SH, Brand Manager, SSP)*

*Sometimes there could be some problem in the users' own performance. But then again, they like to blame it on the third party. But if this keeps on happening frequently, this will definitely have some negative impact on our company's brand equity. (HS, Bank Manager, HSBC)*

*Effective and fault-free transaction is the most important factor for us. So, the transaction and performance for us is quite interrelated. So, the impact on brand equity is also greater. Faulty performances will cause delays and tensions not only for our customers but also for us, and it will result in a loss for London Underground. So, performance is important in contributing to brand equity for sure. (SB, Station Supervisor, TfL)*

*If your performance is not good, we are losing money, we are losing customers, the customer has a bad experience, and they will not come back. So, we are losing more and more customers. (SR, Store Manager, Costa Coffee)*

*As a consistent performer, our marketing [team] is doing their job properly, because what we're looking for when we do well in customer service is that they come back. That's the main reason we get good result in our profitability. (ZS, Retail Manager, Boots)*

*If performance is good, that means more people are served, so I am getting served faster, and the least time is spent somewhere. (FG-B, MBA Students)*

*Like if people are not waiting in the queue, you can serve more customers, and so that why it is increasing their sales. (FG-B, MBA Students)*

*If they sell faster, they will get more money because they get to sell a lot of products. (FG-C, Bus Drivers & Retail Staff)*

The above statements clarify how transaction-specific performance affects transaction-specific brand equity. However, some of the respondents acknowledged transaction-specific trust to be influenced by transaction-specific performance, which in turn, has an impact on transaction-specific brand equity. Some of such responses are stated below.

*Sometimes, you have to trust your customers and then expect them to trust you. I would say that was a faulty performance by us. And that customer will not have trust in me again. This is a very serious issue to look after. (MS, Business Manager, McDonald's)*

*The performance has an effect on trust. The Financial Institute should make sure of that. The terminals, the retailer using it... it may be not very easy to do, but they should have some sort of collaboration, communication to make it even easier, swifter for their own benefit. (HS, Bank Manager, HSBC)*

According to Franzen and Bouwman (2001), brand performance denotes how a brand financially and non-financially succeeds in the market competition. In addition, Kotler (2006) claimed brand equity to be the consumer's ability to identify the brand under different conditions, as reflected by their brand recognition or recall performance.

A number of researchers (Almeyda and George, 2020; Anselmsson et al., 2017; Chaudhuri, 2002; Ekinci, 2018; Keller and Brexendorf, 2017; Reid, 2002; Wong and Merrilees, 2007) view brand reputation, awareness, and loyalty, which are the dimensions of brand equity, as crucial performance factors. Almeyda and George (2020) and Lassar et al. (1995) claimed brand performance to be one of the five dimensions of CBBE. Therefore, based on the discussion above and according to both the existing literature and the qualitative findings, it can be claimed that transaction-specific performance is an antecedent to transaction-specific brand equity. In the following section, the fourth antecedent of transaction-specific brand equity, namely, transaction-specific brand personality, is explored.

#### 5.2.3.4 Transaction-specific Brand Personality and Transaction-specific Brand Equity

In the previous section, it was claimed that transaction-specific brand performance is the third antecedent to transaction-specific brand equity. In this section, the relationship between transaction-specific brand personality and transaction-specific brand equity will be discussed and analysed. After an extensive literature review, transaction-specific brand personality is claimed to be the fourth antecedent to transaction-specific brand equity.

Ahmad et al. (2021), Holehonnur et al. (2009), and Dyson et al. (1996) found that brand attitude and brand personality form a component of overall brand equity. A number of authors have outlined how brand personality helps build consumer-based brand equity (Ahmad et al., 2021; Ahmad and Thyagaraj, 2015; Farhat, 2020; Freling and Forbes, 2005a, 2005b; Giroux et al., 2017; Keller, 2016; Keller, 2020; Keller and Brexendorf, 2017; Luffarelli et al., 2018; Marquardt et al., 2017; Palomba, 2021; Sharma, 2020; Su and Tong, 2015). A favourable brand personality enhances brand attitudes, purchase intentions, consumer trust, and loyalty (Freling et al., 2011; Plummer, 1985), which in turn, translate into higher levels of brand equity (Keller, 2020).

Like human personality, brand personality is difficult to study as is transaction-specific brand personality. Therefore, the concept was explored as much as possible during the qualitative study. To study the relationship between transaction-specific brand personality and transaction-specific brand equity, the respondents were asked to explain how a positive brand personality could enhance a retailer's brand equity. Some of the responses are provided below.

*Any type of positive perceptions will add to brand equity. So, if the brand personality perception is positive, it will impact on brand equity. Like M&S can be personalised as posh, mature, and trendy. So, these perceptions about a positive personality would definitely add to our brand value. (ME, Commercial Manager, M&S)*

*The way we all admire a good person, recruit a skilled and competent staff - in the same way, a brand a positive personality would be appreciated by more customers. (SH, Brand Manager, SSP)*

*The more you sell, the more money you make' And 'it's not just making the money anyway'- We are also making your customer happy, and you want them to come back to you and to trust*

*you, and you want to keep the relationship and want to retain that. So, this will have huge impact. (HS, Bank Manager, HSBC)*

*Anything positive will add to brand equity. Positive brand personality will definitely have a positive impact on brand equity. (SB, Station Supervisor, TfL)*

*If you see any brand in your mind that created an atmosphere of becoming a brand, they have their own identity....those who are confident in those positive things, that helps brand equity! (JA, Marketing Manager, Coffee Republic)*

*If the customer is more confident about the payment system and trusts our company more, then the brand equity will go higher. (MS, Business Manager, McDonald's)*

*We're talking about a beautiful woman- - fast, intelligent - and they just can't help it. The customers would be like, 'I'll give it all to you as you give it all to me'. (WV, Customer Service Manager, Vital Ingredients)*

*For the brand, it is very important, actually, what you are giving to your customer. I think that having technology increases the reputation and brand equity. (ZS, Retail Manager, Boots)*

*I would feel more attached. (FG-A, Academics)*

*Obviously, if there is a positive brand personality, then it will be well known in the industry and among the customers. So obviously it will have an effect on profits, sales, and things like that. (FG-B, MBA Students)*

*So, I would say that the brand personality... Let's say that in a company, the brand personality is mostly positive, it will impact on a good way so customers will mostly come back there, given that they have good customer service, all transaction options in place, and they provide for major transactions. (FG-B, MBA Students)*

*The personality of the brand affects the overall image of the brand and then affects brand equity. (FG-B, MBA Students)*

*If you like a brand, it becomes a part of your community; you get attached to it.* (FG-C, Bus Drivers & Retail Staff)

*If I have a positive thing in my mind, then their profit will grow. If negative, then it will decline.* (FG-D, Office Workers)

From the above responses from various respondents, the positive relationship between transaction-specific brand personality and transaction-specific brand equity is clearly evident. Many of the responses highlight the attachment that could be created through developing a positive brand personality that could significantly affect brand equity in terms of increased loyalty and customer retention. Some of the respondents talked about the sales, profits, brand image (such as modern technology), trust, customer loyalty, and brand attitude that can be obtained from transaction-specific brand personality, which could ultimately contribute to building transaction-specific brand equity.

Therefore, based on the above qualitative findings and the existing literature, it is concluded that transaction-specific brand personality is one of the antecedents to transaction-specific brand equity. In the following section the fifth and final antecedent of transaction-specific brand equity will be discussed; it is known in this study as transaction-specific associations.

#### 5.2.3.5 Transaction-specific Associations and Transaction-specific Brand Equity

In the previous section, the relationship between transaction-specific brand personality and transaction-specific brand equity was established and transaction-specific brand personality was claimed to be the fourth antecedent to transaction-specific brand equity. In this section, transaction-specific associations which is claimed to be the fifth and final antecedent to transaction-specific brand equity for this study, will be analysed.

Brand associations are a source of brand equity according to Keller (2020), who claimed that strong, positive, and unique linkages strengthen a brand and boost its equity. Others (Bridges et al., 2000; Broniarczyk and Gershoff 2003; Chen, 2001; Cho and Hwang, 2020; Chung et al., 2013; Stocchi et al., 2021) have stated that brand equity generates leverage in the market and is affected by the types of associations which a brand has. By means of brand associations, companies can differentiate and position their products and create positive attitudes and beliefs towards their brands (Dean, 2004; Huang and Sarigollu, 2011; Stocchi et al., 2021).



Authors like Bridges et al. (2000), Chung et al. (2013), Huang and Sarigollu (2011), Keller (2020), and Norazah (2013) feel that the awareness of brands leading to customer organization greatly affect consumer decision-making, when consumers generally utilize it as a heuristic decision that improves customer management.

*When you already had the idea, the experience, which facility to take, then you already go there without having any second thoughts. (ME, Commercial Manager, M&S)*

*The more positive associations that customers have in their minds, the more the brand value will increase adding to the brand equity. (SH, Brand Manager, SSP)*

*I guess I just said that. So, the way positive personality perceptions would add value to our company, the same way other positive perceptions which you can say as associations can increase the brand value, too. The rule and the reason are the same. (HS, Bank Manager, HSBC)*

*The same way I said positive brand personality impacts on brand equity, any positive perception will add value to a brand. For us, positive associations will also impact on reputation, and that will also add value to us isn't it. (SB, Station Supervisor, TfL)*

*I have to answer simply: because when they come back every time, the brand equity goes up, and they never come back except only when the positive association is there. (JA, Marketing Manager, Coffee Republic)*

*It will help my company to analyse more customers, and based on the customer's behaviour and by analysing how my company is creating more customers or losing customers, we can modify the system and work within it. (MS, Business Manager, McDonald's)*

*Profit will increase when customers have the trust in that company. If they come back, we're going to increase our profit. (WV, Customer Service Manager, Vital Ingredients)*

*When people start to think that they are getting the same experiences compared to John Lewis, they would feel more welcome, and they can easily trust us, and whenever they wish to buy*

*something that is needed every day, they would probably choose us. (ZS, Retail Manager, Boots)*

*As I get these associations from my friends and family, s' if they're relying on the brand, then it would have more impact on me. (FG-A, Academics)*

*Positive perceptions (associations) affect brand equity positively.... You get more customers and more sales; that's the catch really. (FG-B, MBA Students)*

The responses above clarify how positive transaction-specific associations could lead to transaction-specific brand equity. Similarly, in the literature, there is a clear link between the two constructs (Aaker, 1991, 1996; Algharabat et al., 2020; Chen, 2001; Çifci et al., 2016; Christodoulides et al., 2015; Das, 2020; Keller, 1993, 1998, 2003, 2020; Molinillo et al., 2018; Pappu and Quester, 2017; Yoo et al., 2000; Zablocki et al., 2017). As strong, favourable associations cause brand procurement, they add to brand equity, providing good word-of-mouth advertising. The advantages, strengths, and uniqueness of the brand associations (image) determine the difference between brand knowledge and brand equity (Keller, 1993, 1998, 2003; 2020).

During the qualitative study, the researcher explored various types of transaction-specific associations that could lead to transaction-specific brand equity. Interestingly, when the respondents were asked to mention some of the transaction-specific associations that could be promoted within an organization to enhance their transaction-specific brand equity, they mentioned the following types of transaction-specific associations.

*Trust, excellent customer service, quality, fault free transaction, quick and hassle-free transaction, memorable and enjoyable experience. (ME, Commercial Manager, M&S)*

*Quick payments, less queuing time. (SH, Brand Manager, SSP)*

*Contactless travel. We have been encouraging this since 2014. (SB, Station Supervisor, TfL)*

*On the door, we put like you to know the quick and fast service. Basically, we use faster service for the payment. Even if we close our eyes, we can make the standard coffee. (SR, Store Manager, Costa Coffee)*

*Transaction performance, queue management.* (MS, Business Manager, McDonald's)

*That we're quick. Like I told you before, we have a timing. We serve them in 6 minutes* (WV, Customer Service Manager, Vital Ingredients)

*For cheaper stuff, I would go to Tesco, but for a good experience, I would go to Waitrose.* (FG-A, Academics)

The above statements not only show how transaction-specific associations affect transaction-specific brand equity but also clarify the concept of transaction-specific associations. Similarly, many researchers in the past (Bridges et al., 2000; Broniarczyk and Gershoff, 2003; Chen, 2001, Çifci et al., 2016; Chung et al., 2013; Dean, 2004; Huang and Sarigollu, 2011; Keller, 2003; Molinillo et al., 2018; Norazah, 2013; Pappu and Quester, 2017; Pouromid and Iranzadeh, 2012; Yoo et al., 2000; Zablocki et al., 2017) have studied the effect of associations on brand equity, and they all found them to have a positive relationship.

The conceptual framework that was initially developed in chapter 3 with the foundations of the existing literature discussed and presented in Chapter 2, was further validated and confirmed by the qualitative study. As evident from the above section in this chapter, most of the relationships between the various constructs were seen to be in line with the literature. The qualitative study makes the relationship even stronger and more relevant as interviews and focus groups were carried out using the 'transaction-specific' constructs, which is adapted for this study. Hence, the study could be undertaken more specifically.

However, after undertaking the qualitative study, a few changes, confusions, and discrepancies were noticed, and thus, the conceptual framework needed further modifications. There were a few relationships that came up as a result of qualitative data analysis, which were very important and meaningful but which had been missed by the researcher during the literature review. The following section elaborates and justifies the various additions/deletions of the initial conceptual framework and presents a revised conceptual framework at the end of the chapter.

### **5.3 CHANGES TO THE CONCEPTUAL FRAMEWORK**

#### **- The Additions and Deletions to the Model**

The literature review in Chapter 2, helped to analyse and justify the relationships between the constructs and design the initial conceptual framework presented in Chapter 3. It was noted during the qualitative study that there were some confusions and discrepancies regarding the initial conceptual model. Firstly, it was noted during the qualitative analysis that there was another measure for transaction experience that was believed to be very important, namely, perceived transaction security. Initially, this was missed by the researcher; however, going back to the literature, the researcher found strong evidence to justify perceived transaction security as a measure for the formative variable, that is, transaction experience.

Secondly, some of the transaction-specific constructs seem to be very confusing and difficult to justify as a transaction-specific outcome. Initially, all the constructs in the model were termed as transaction-specific. Although for most of the constructs, the transaction-specific concept was not evident in the existing literature, during the quantitative study, most of them were justified and validated during the qualitative study except for transaction-specific reputation and transaction-specific brand personality. With no evidence from the literature and confusions during the qualitative study, these two constructs were re-named as ‘perceived reputation’ and ‘brand personality’ respectively.

Thirdly, some of the hypotheses were revised. The relationship between transaction experience and transaction-specific brand personality was nullified, and a positive relationship between transaction-specific association and brand personality was hypothesized. On the other hand, the relationship between transaction-specific reputation and transaction-specific perceived value and the relationship between transaction-specific perceived value and transaction-specific brand equity were nullified, and a positive relationship between perceived reputation and transaction-specific brand equity and the relationship between transaction-specific satisfaction and transaction-specific brand equity were hypothesised according to the findings of the qualitative study. In addition, a positive relationship between the focal construct (transaction experience) and the final outcome (transaction-specific brand equity) became evident during the qualitative study.

Fourthly, two moderators, age and profession, were included, and finally, two mediators, perceived reputation and brand personality, were added to the revised model, which is presented at the end of this chapter. The above-mentioned variations are discussed in detail in the next section.

### 5.3.1 An Addition to the Model - Perceived Transaction Security

After analysis of the qualitative data, a new construct was introduced and added to the conceptual framework. As mentioned in Chapters 2 and 3, transaction experience is a formative variable and, in accordance with the findings of an extensive literature review, is measured with perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment. However, the researcher missed a very important measure of transaction experience, namely, perceived transaction enjoyment, which became evident during the qualitative study. When the respondents were asked what, in their opinion, were the elements of transaction experience, most of them claimed security to be an important factor, and several respondents elaborated upon why they considered security to be such an important element of transaction experience-

*If I put myself in the customer's shoes, the first thing I need to see is, is it more reliable? if the data will be safe or will it be everywhere? If it is safe, how reliable the company is, how fast the transaction is, and am I getting the receipt for only the card transaction or am I getting the receipt for the whole transaction? (JA, Marketing Manager, Coffee Republic)*

*When these things came first to the market, I wasn't that comfortable using it. Neither was I able to make my customers convinced about how secure it is. But eventually, when I came to know how it works and what type of security features are involved in it...taking all this into consideration, it is much better, much less time consuming; also, it is secure. (HS, Bank Manager, HSBC)*

*...if the transaction was secure. Like, if you have stuff stolen from your card, is it secure? Especially if using contactless. I don't know if you ever have been to the US; it is easier in there to get card details stolen with contactless than it is in here. They have advanced stuff with thieves and stuff. So that is one major thing to consider especially when it comes to money and payments; Security is the major thing for me. (FG-B, MBA Students)*

*Younger customers like to try contactless more and do faster transactions whereas older customers are more worried about the security. (FG-B, MBA Students)*

As mentioned, the third finding stated above from a respondent is that security is a major factor in transaction experience, and she feared that the contactless card could be hacked or overcharged. Then,

again, a bank manager claimed that all the contactless fraud is insured and covered, so that should not have any negative impact on a customer's transaction. He stated':

*. As a bank customer, your bank gives you the security. If this transaction was not legitimated, if it was not done by you, the bank is always by your side to take your money back! If you did not authorize the transaction, you get your money back! (HS, Bank Manager, HSBC)*

*....if there is any fraudulent transaction or any transaction that is suspicious, you can dispute it. And when it is investigated, if it comes out as a genuine fraudulent transaction, of course you are not liable for it. (HS, Bank Manager, HSBC)*

While banks insure and act against any fraud to protect their customers' transaction security, retail managers also take certain measures to ensure a secured transaction experience for their customers. The following findings refer to this factor.

*[Safety and security] ....If it is an old customer, and they know the company, yes. But sometimes they hesitate when we say the transaction didn't go through, but they see on their phone that it did, they get a bit confused and ask for receipt. But what we tell them is, if they feel they are paying extra money, they should just come back to get a statement, and then we will solve their problem. We don't mind giving free refunds. (WV, Customer Service Manager, Vital Ingredients)*

*A positive transaction, in my dictionary, is if the money has gone through or not. If the money has gone through, the customer doesn't need to answer anything, or they don't need to do anything. We're making sure 100% that the customers are safe and happy. (JA, Marketing Manager, Coffee Republic)*

After taking into consideration the qualitative findings, the researcher went back to the literature where a whole body of research was discovered regarding transaction security and customer experience, which had been overlooked initially. It was evident in the literature that security is an important variable when dealing with payment systems such as contactless technology, as it can often determine the user's decision regarding whether to buy a product or not (Alice et al., 2015; Gefen et al., 2003; Karim et al., 2020; Lee et al., 2001; Loh et al., 2020; Schierz et al., 2010; Zhao and Bacao, 2021).

While making a transaction, especially with a contactless technology, customers might experience some levels of risk associated with security, such as unintentional ‘touch’, double payments, hacking, and so on. In the opinion of some international experts, security problems arise from the usage of an open network, i.e., customers fear that their personal financial information is available to others and may be used for fraudulent purposes (Md Nor et al., 2011). Some safety regulations and rules will therefore enable customers to perform all operations in a safety manner. Therefore, security can be seen as a two-dimensional notion with security and privacy (Radomir and Nistor, 2013).

Most security investigations were carried out in the online banking setting where NFC linkages can be drawn and banks' contactless cards can be issued. Transactions are carried out securely and that their personal data stay private, and that this influenced their decision to embrace the voluntary technology of information, in this case, contactless technology. In the case of mobile communication technologies, according to Arpacı et al. (2015), the safety of mobile devices and wireless data transfer is a key aspect that can lead to the use of these techniques; their study argues that low security perceptions can increase the technological risk of using those technologies for organizations. Organizations with high technical risk tolerance may, on the other hand, advance their use of these technologies.

Perceived security has been studied by many researchers (Alice et al., 2015; Dutot, 2015; Giovanis et al., 2012; Hanudin, 2007; Lee et al., 2005; Nasri and Charfeddine, 2012; Radomir and Nistor, 2013; Salisbury et al., 2001; Wang et al., 2003; Yousafzai et al., 2009; Yuen et al., 2010) to show its effect, influence, and importance on behavioural intention (or experience). This research thus termed the new measure of transaction experience as ‘perceived transaction security’ based on the literature that claims the adoption of technology makes a positive transaction experience due to the perceived transaction security factor (Benedetto et al., 2003; Dutot, 2015; Tan and Teo, 2000; Rupanjali, 2013).

Kolsaker and Payne (2002) claimed that security reflects customers’ views of payment reliability, data transfer, and storage systems, while Flavián and Guinalú (2006) defined security as the subjective probability with which consumers believe that their personal (private and monetary) information will not be viewed, stored, and manipulated by inappropriate parties during their transit and storage in a manner that meets their requirements for confidentiality.

Researchers have stressed the technical aspects that ensure the integrity, confidentiality, authentication, and failure to recognize transactions. Arpacı et al. (2015) defined perceived security as the degree to which smart phones are believed to be safe to transmit sensitive information, such as

customer information and financial transactions. Meanwhile, Salisbury et al. (2001) defined perceived web security as the degree to which the internet is seen to be secure for communicating sensitive information. In a paper by Yenisey et al. (2005), the level of safety felt by users while purchasing on e-commerce sites is viewed as the level of security. In light of the past definitions of perceived security and the qualitative findings, this study defines perceived transaction security as the extent to which the prospective user of NFC perceives the transaction to be secure for transmitting sensitive, information such as consumer information and financial transactions, during the transaction experience (Arpaci et al., 2015; Flavián and Guinalú, 2006; Salisbury et al., 2001; Yenisey et al., 2005).

According to many researchers (Cotteleer et al., 2007; Herzberg, 2003; Karim et al., 2020; Loh et al., 2020; Linck et al., 2006; Malla, 2021; Peha and Khamitov, 2004, Stroborn et al., 2004, Tsiakis and Sthephanides, 2005; Widyanto et al., 2021; Zhao and Bacao, 2021), perceived security is a key factor for the success of e-transactions such as contactless payments. Indeed, it is a requirement that is becoming even more crucial in the current global electronic transaction environment. Thus, taking into account the literature discussed above and the qualitative findings, perceived transaction security is considered another measure for transaction experience, and hence, it is added to the previously designed conceptual framework

### **5.3.2 The Deletion from the Model - Transaction-specific Perceived Value**

To answer research question 2 (RQ 2) and to show the link between transaction experience and transaction-specific brand equity, the previous conceptual model hypothesized positive relationships between transaction-specific reputation and transaction-specific perceived value and between transaction-specific perceived value and transaction-specific brand equity. However, after conducting the qualitative research, it was evident that transaction-specific perceived value played a very minimal role, if any, in defining the relationship between transaction experience and its effect on transaction-specific brand equity. Most of the participants claimed that transaction-specific reputation is the aftermath of transaction experience, and that itself leads to transaction-specific brand equity, while transaction-specific perceived value is insignificant to the model.

Two of the respondents directly claimed that transaction-specific perceived value plays no role in the conceptual model:

*If it's a worldwide thing, then the reputation of it is already in my mind, and even though there is a problem in my transaction or I have negative perception, I would still rely on them.*



*Basically, the perception could have been just for one day or so. Mistakes happen, so one day perception wouldn't really change the perceived reputation of that company for me. (FG-A, Academics)*

*But to me, perception - what you are saying is perceived value - is the same as reputation. Reputation to me means what is perceived by my customers. That's how I see it. (MS, Business Manager, McDonald's)*

From the above statements, it is clearly evident that the participants believed transaction-specific reputation equates to transaction-specific perceived value. Therefore, what has been hypothesised as transaction-specific perceived value in the previously designed model is actually transaction-specific reputation, which is responsible for the increase/effect on transaction-specific brand equity.

On returning to the literature to support this claim, similar clues were found. Bromley (2001, p. 316) broadly defined reputation as “a distribution of opinions (the overt expressions of a collective image) about a person or other entity” whereas Barnett and Lafferty (2006, p. 34) described it as “a set of attributes ascribed to a firm, inferred from the firm's past actions”. Babić et al. (2011) studied these two constructs in the banking context and found that corporate reputation has a favourable and considerable impact on the perceived value of corporate buyers. In applying this notion to the retail setting, Yoon et al. (2014) maintained that earlier studies have long acknowledged store reputation as the cause of consumer judgments and behaviour as perceived value. Thus, it can be said that the concept of perceived value can somehow be substituted by the concept of reputation and especially in the transaction-specific concept. This claim can be further validated by the fact that the brand reputation in itself is an assessment of its value and, thus, of the perceived value of the customers (Chaudhuri, 2002).

Hence, after careful research and analysis, the researcher nullified the relationship between transaction-specific reputation and transaction-specific perceived value and hypothesized a positive relationship between transaction-specific reputation and transaction-specific brand equity which is discussed in detail in the preceding sections. Thus, the entire construct was deleted from the previously designed conceptual model. This decision by the researcher is further supported by the responses from other participants who also indirectly quoted views similar to those of the two participants' responses stated above. The findings are presented below.

*We are known for our quality, reputation, brand name, and customer service, and all that together makes our company so valuable. What is perceived by our customers is exactly what our reputation is. (ME, Commercial Manager, M&S)*

*When they feel happy and safe, and they have a good transaction experience, they will think that that company is a reputable company and will be willing to use their contactless cards... People are using contactless because of the company's reputation. (JA, Marketing Manager, Coffee Republic)*

*Positive perceived value, especially of a company's reputation, is very important for developing brand equity. (ME, Commercial Manager, M&S)*

*A good reputation means more loyal customers and increased brand equity. (SH, Brand Manager, SSP)*

*Satisfaction to reputation and then reputation to more loyal customers to again better reputation, and the end result is that the company gets more money overall. (FG-C, Bus Drivers & Retail Staff)*

*The more customers are saying good, the better our reputation is. As a company, this is the last 7 years consecutively, this is the best coffee house in the UK. It is indeed greatly increasing our brand name [and] our brand value. (SR, Store Manager, Costa Coffee)*

Another very important qualitative finding, as seen above, is that transaction-specific reputation has a direct and positive impact on transaction-specific brand equity regardless of the relationship between transaction-specific perceived value and transaction-specific brand equity. Hence, as shown by some of the responses, there is no need for an extra construct. Similarly, in the marketing literature, several authors (Baruah and Panda, 2020; Bell, 2005; Dolphin, 2004; Góis et al., 2020; Han et al., 2015; Ramos and Casado, 2021; Wang et al., 2006) claim that reputation is a valuable intangible asset of a brand which increases the brand equity. However, although taking into account the above justifications, the transaction-specific perceived value construct was deleted, and the previously designed conceptual framework which named the construct transaction-specific reputation was also changed to perceived reputation, thus combining the two constructs (perceived value and perceived reputation) as having a

greater impact on transaction-specific brand equity. The justification and further discussion follow in the next section (see 5.3.3.1).

### **5.3.3 The Renaming of Constructs - The Confusion of ‘Transaction-specific’ constructs**

This research named most of the constructs as ‘transaction-specific’, based on the conceptual framework and mainly to customize and tailor each of the constructs to the framework. In addition, for almost all the constructs, respondents had a positive view and agreed on the term ‘transaction-specific’ as discussed in detail in Section 5.2.2.

However, during the interviews and after qualitative analysis, it was evident that there were two exceptions: transaction-specific reputation and transaction-specific brand personality. Moreover, the respondents found the term ‘transaction-specific’ either confusing or irrelevant when it comes to these two particular constructs, but they were on the verge of accepting the rest of the constructs as transaction-specific. Nonetheless, the term ‘transaction-specific’ did not seem to fit the two constructs.

In the marketing literature, only two transaction-specific constructs were found: transaction-specific satisfaction (Anderson et al., 1994; Andaleeb and Conway, 2006; Bodet, 2008; Boshoff, 1999; Fornell et al., 1994; Homburg et al., 2005; Ji and Prentice, 2021; Johnson, 2001; Jones and Suh, 2000; Lao, 2020; Olsen, and Johnson, 2003; Stojic et al., 2020; Vena-Oya et al., 2021; Veloutsou et al., 2005) and transaction-specific brand equity (Olson and Johnson, 2003). However, there was no transaction-specific research on any of the remaining constructs and neither of the terms, ‘transaction-specific reputation’ and ‘transaction-specific brand personality’ existed in the literature. As a result, there was no solid justification that could be presented to support the two constructs in question specifically from the literature. Hence, taking into account the results of the qualitative analysis, these two constructs were renamed in the revised framework to avoid any confusion. The justifications and further details are illustrated in the next two sections below.

#### **5.3.3.1 Transaction-specific Reputation to Perceived Reputation**

Further to the discussion above in Section 5.3.2, where the construct transaction-specific perceived value was deleted and a direct link was claimed between transaction-specific reputation and transaction-specific brand equity, this section discusses the reasoning behind changing the name from ‘transaction-specific reputation’ to ‘perceived reputation’ and states the reasons why the ‘transaction-specific’ prefix was not used for this particular construct. Some of the reasonings have already been

discussed above, but the actual claim to rename this construct resulted from the qualitative analysis and the responses received in regard to the name and concept of this particular construct. Some of such responses are presented below.

*I don't know what to think of when talking about reputation in the context of transaction. I think of reputation as a vast concept and it is the overall perception of the company so transaction-based reputation doesn't really make sense to me to be honest. (ME, Commercial Manager, M&S)*

*To me, perceived value and reputation means quite the same. In a transaction, reputation hardly plays any role. Like reputation is not based on how a transaction is done, I guess. (JA, Marketing Manager, Coffee Republic)*

*Customer satisfaction has a direct impact on the company's reputation. But [I'm] just not sure how the reputation is gained when talking about transactions. Transactions will be the least factor to build a company's overall reputation. I mean, I am a bit confused about when you are talking about transaction-specific reputation. I would rather say only 'reputation', which itself says it all. (FG-B, MBA Students)*

From the above statements, it is clearly evident that the respondents did not agree with the term 'transaction-specific' when it comes to transaction-specific reputation. They found the prefix (transaction-specific) somewhat confusing and irrelevant. Another very important finding that can be concluded from the qualitative analysis is that a majority of the respondents' viewed 'reputation' as a wider concept and not as 'specific to something' such as transaction-specific, and they claimed that when it comes to reputation, it is not built upon one 'specific item or concept' but upon the overall perception of the organisation/retailer.

This claim is supported in the marketing literature where a number of authors (Alwi et al., 2017; Bromley, 2001; Carroll, 2017; Chettamronchai, 2010; Chun, 2005; Fombrun and Van Riel, 2004; Helm, 2007; Kelly and Thams, 2019; Moccia et al., 2021; Pérez-Cornejo et al., 2019; Shamma, 2012; Sobhani et al., 2021) studied 'reputation' and conceptualised it as the overall perception of an organisation/retailer, which takes into account and adds up all the various perceptions and is thus a summation of all those perceptions as a whole. Hence, reputation is very unlikely to be derived from something too specific and thus is not likely to reflect just one context, such as 'transaction-specific'.

In fact, Bromley (2001) suggested that corporate reputation is the set of traits that differentiate between one company and another, meaning that it is rather a general perception/impression of a retailer.

On the other hand, there is no trace of transaction-specific reputation in the marketing literature to support use of the term. As a result, the construct was revised and renamed to give it a more meaningful role. Hence, the previously named ‘transaction-specific reputation’ was renamed ‘perceived reputation’ in the revised model.

As mentioned above in Section 5.3.2, there was a change in the relationships related to this particular construct; the construct ‘transaction-specific perceived value’ was removed and replaced by the construct ‘perceived reputation’, which had a direct impact on transaction-specific brand equity itself. In addition, the revised construct was renamed.

The revised construct also had the trial of the ‘perceived value’ concept, as was evident from the qualitative analysis, and thus the combination of the two concepts (perceived value and reputation) together formed this newly derived construct ‘perceived reputation’. Similarly, it was found in the literature that the brand reputation in itself is an assessment of its value, and thus, of the perceived value of the customers; hence, taking all these into consideration, the renaming of the construct was justified. Similarly, another construct had the same transaction-specific confusion among respondents and, like perceived reputation, was renamed. This is discussed in the next section.

#### 5.3.3.2 Transaction-specific Brand Personality to Brand Personality

Brand personality is in itself a confusing concept. A significant amount of imagination is required when personalising a non-living thing, let alone a concept. Hence, while undertaking qualitative analysis, it was discovered that the brand personality concept was quite confusing and surprising to most of the respondents. Furthermore, when the concept was extended to ‘transaction-specific brand personality’, the respondents were further confused and so refused to accept the term. They were quick to disapprove of the concept of transaction-specific brand personality, claiming that this term was both confusing and irrelevant. Some of such responses were as follows.

- *I don't understand.* (FG-C, Bus Drivers & Retail Staff–
- *Sorry - confusing.* (FG-C, Bus Drivers & Retail Staff)
- *Not sure!* (FG-C, Bus Drivers & Retail Staff)

- *Could you explain what it means?* (FG-C, Bus Drivers & Retail Staff)
- *Transaction having personality...Doesn't make sense to me.* (FG-D, Office Workers)
- *No idea what that could mean.* (FG-D, Office Workers)

From the above statements, it is very clear that adding the prefix 'transaction-specific' made an already confusing construct (brand personality) even more confusing. Thus, with a total negative response from all the respondents, it was decided to delve further into the literature to justify the term. However, the literature itself justified the findings of the qualitative analysis; many authors (Avis, 2012; Azoulay and Kapferer, 2003; Conejo, 2021; Conejo et al., 2017; Ermeç Sertoğlu and Kavak, 2017; James et al., 2006; Marticotte, 2016; Masiello et al., 2020; Lara-Rodríguez et al., 2019; Okazaki, 2006; Smith, 2009) claimed that brand personality is a confusing and complex construct.

During the qualitative research, almost all the respondents gave statements that clearly denied and disagreed with the idea that brand personality can be transaction-specific. One of the respondents even took it very seriously and strongly disagreed and debated the fact that a critical and confusing construct such as brand personality should not be exaggerated and should be kept simple so that the general public can easily understand it. The respondent, an MBA student, also claimed that the use of specifically academic words and terms should be avoided, as it would be unfair on general readers and students. Some of the reasons for the disagreement by the respondents are presented below.

*Never thought of anything like transaction experience creating something like personality. Brand makes sense, ok; but transaction-wise, how can you have personality from experience.... Sorry, a bit confusing for me. I think it is trust or perception they get from the transaction experience more than personality.* (SR, Store Manager, Costa Coffee)

*I am not very familiar with that concept. I can imagine what brand personality could be, but transaction-specific brand personality seems out of my knowledge. Personality doesn't come from transaction only, does it? It takes into account all the perceptions and reputation and everything.* (SB, Station Supervisor, TfL)

*When it comes to transaction, it is quite confusing as such. Why use the term anyways? Its' confusing and irrelevant. ...it is confusing, and the top if you add transaction-specific brand personality it is quite confusing. Keeping it simple makes it easier to understand especially for consumers. I mean, specifically for brand personality concept because as a marketing major MBA student, I do think brand personality isn't an easy-to-understand concept. It is quite*

*complex, and making it simpler makes life easier for everyone. That is my personal opinion.*  
(FG-B, MBA Students)

Taking into consideration the above conditions, the results from the qualitative analysis, and with the lack of support from the literature, it was obvious that ‘transaction-specific brand personality’ should be renamed just ‘brand personality’ to offer a simplified version of the already complex construct.

As mentioned in the earlier sections, in addition to several constructs being renamed, that is both the above-mentioned renamed constructs ‘perceived reputation’ and ‘brand personality’, some relationships have also been revised. The new relationships related to these two constructs and some other revised hypotheses are discussed in the following section.

#### **5.3.4 The Changes and Revisions in the Relationships- Revised Hypotheses**

Although all the hypotheses were well established in the previous conceptual framework, some of the relationships could not be well justified during the qualitative analysis. A simple change to one single construct led to changes in various relationships among the variables. Firstly, the construct ‘brand personality’ which seemed to be very confusing and complex to the respondents was renamed, and the relationships related to this construct were also changed. Previously, the hypothesis that stated that ‘transaction-specific brand personality’ is derived from transaction experience was not justified by the qualitative study and thus was dropped from the revised conceptual model; instead, a positive hypothesis was established between transaction-specific associations and brand personality along with changing the name of the construct from ‘transaction-specific brand personality’ to ‘brand personality’.

On the other hand, ‘perceived reputation’ was also renamed as mentioned above from its previous term ‘transaction-specific reputation’, and there was a direct link shown between the renamed construct and the ultimate outcome transaction-specific brand equity. As a result, revisions were made to three hypotheses from the previously designed conceptual model. As stated in the previous section, since ‘transaction-specific perceived value’ was removed from the model, the two hypotheses related to this construct were also nullified, and a new set of hypotheses were established so as to show a positive and direct relationship between transaction-specific satisfaction and transaction-specific brand equity and perceived reputation and transaction-specific brand equity.

Last but not the least, a direct relationship between the focal construct ‘transaction experience’ and ‘transaction-specific brand equity’, which had been overlooked on the previously constructed conceptual framework, was hypothesised in the new model. All these changes in the relationships resulted in the addition and deletion of several hypotheses, and these are discussed and justified in light of the qualitative study one by one in the following sections.

#### 5.3.4.1 Nullify relationship between Transaction Experience and Transaction-specific Brand Personality

In the previous conceptual model, a positive and direct relationship was hypothesised between ‘transaction experience’ and ‘transaction-specific brand personality’. As stated above, the transaction-specific brand personality was renamed ‘brand personality’ and along with the renaming, the relationship to and from the construct was also revised on the basis of the qualitative study.

During the qualitative study, it was noted that respondents disagreed that brand personality was generated from transaction experience; rather, they believed that during transaction experience, customers would develop some transaction-specific associations which would then lead to brand personality. Respondents also thought that brand personality is a complex and confusing construct and does not develop so easily within customers’ mind directly through experience. Some of the responses that justify this view are presented below.

*Some of the associations we develop in our minds lead us to personalise the brand. So, I would suggest that personality doesn’t come from experience. (SH, Brand Manager, SSP)*

*Like when you go into Starbucks, it is hard for you to have some perception of something of the brand personality.... So, all I wanted to say is that if you have positive perceptions in your mind continuously, and it is very stable and more or less the same all the time, only then might you personalise something but a brand and not from a single experience. (FG-B, MBA Students)*

*After the experience, you will have some point in your mind about Asda that is fast transaction, quick, enjoyable experience and so on (i.e., associations) and after that, you can think about its reputation or what you were saying about thinking it as a human being, giving it a personality and all. (FG-C, Bus Drivers & Retail Staff)*



*If you use this, then you get the perception to purchase faster and personalise it as a fast and active person. (FG-C, Bus Drivers & Retail Staff)*

*Personalities depend on the perceptions and associations they [the customers] already have in their mind from previous experience. (FG-A, Academics)*

From the above statements, it is very clear that respondents believe that brand personality is not derived directly from transaction experience. They seemed to claim that during transaction experience, transaction specific perceptions and associations build up in their minds, which then leads to brand personality.

Although some authors (Aaker, 1997; Choi et al., 2017; Conejo et al., 2017; George and Anandkumar, 2018; Keller, 1993; Kim et al., 2015; Liao et al., 2017; Nobre et al., 2020; Omar, 2020; Plummer, 2000; Ranfagni et al., 2016; Saeedet al., 2021) claim to demonstrate a positive relationship between ‘experience’ and ‘brand personality’, the evidence is not so straightforward and clear. In most of these cases, the authors show the impact that experience might have on developing brand personality, but none of them really hypothesise a positive relationship between the two constructs.

As a result, with a negative cue from the qualitative study and with no further justification from the literature, it was obvious that the hypothesis that was suggested in the previous conceptual model, i.e., that there is a positive link between transaction experience and (transaction-specific) brand personality should be nullified and dropped from the revised conceptual framework following the qualitative study.

Alternatively, the qualitative study suggested that the brand personality is derived from a positive set of transaction-specific associations (and not from transaction experience), and this new relationship is discussed in the next section.

#### 5.3.4.2 Positive Relationship between Transaction-specific Association and Brand Personality

As discussed in the previous section, the hypothesis regarding how brand personality developed from transaction experience was nullified, and instead, in the revised model, a positive relationship was established with transaction-specific associations. Thus, a new relationship between transaction-

specific associations and brand personality was hypothesized following analysis of the qualitative study.

It is evident from the previous section that the respondents claimed to personalise a certain brand/entity on the basis of the associations (transaction-specific) that they perceive during the (transaction) experience. Almost all of the respondents had a similar view on this new relationship/hypothesis. Some of the claims made by the respondents are quoted below.

*Personalities depends on the perceptions and associations they already have on their mind from previous experience. (FG-A, Academics)*

*Some of the associations we develop in our minds lead is to personalise the brand. So, I would suggest that personality doesn't come from experience it comes from associations in our minds. (SH, Brand Manager, SSP)*

*When customers visit our store, they will have some perceptions about us good or bad, reputed or not, excellent service or poor quality etc. [i.e., associations] ...and when it comes to transactions, they will have feelings like the transaction was quick, fast, and reliable, it was smart pay, it was trustworthy, and this and that [i.e., transaction-specific associations]... and then from all these things in their mind, they will imagine in their head and give a personality to the brand. (WV, Customer Service Manager, Vital Ingredients)*

*After the experience, you will have some point in your mind about Asda that is fast transaction, quick, enjoyable experience and so on [i.e., associations] and after that, you can think about its reputation or what you were saying about thinking it as a human being, giving it a personality and all. (FG-C, Bus Drivers & Retail Staff)*

*Same way as I said before. So, when you experience something, you develop some perceptions in your mind. Only after you have made a contactless payment can you image it as a person and say how the person is. (SB, Station Supervisor, TfL)*

*Basically, having the latest technology will be likely to create better perceptions - what you were saying about association- before - and it's all linked; the associations all consist of reputation, perception, personality, and everything and all together impact on brand equity. (SR, Store Manager, Costa Coffee)*

After the findings obtained from the qualitative study and going back to explore the brand personality literature, it was found that brand association is an essential component of brand personality that leads to brand equity (Kim et al., 2010). Keller (1993) stated that brand personality is derived mainly from three sources, and the first source is the set of associations which consumers form with a brand.

Consistent with Keller's (1993) conceptualization of brand equity resulting in brand associations, Freling and Forbes (2005) argued that the greater the number of brand associations created, the stronger is the brand personality for that particular brand.

On the other hand, Aaker (1996), who contributed a huge range of literature on brand personality ranging from definition to measuring the construct and the development of scale, defined brand personality as the set of human characteristics associated with a given brand. So, it is clear from the definition that the associations generated results in creating a certain brand personality for a particular brand. Later, Aaker (1997) established a brand personality dimension (BPS), which gauges to what extent a brand has particular personality attributes, Freling and Forbes (2005) studied brand personality and claimed that brand associations are responsible for creating certain personality traits. In 1991, Aaker categorized brand associations into 11 types, one of which is personality.

According to Ahmad and Thyagaraj (2015), many companies now focus on the development of brand personality as a means of fostering stronger associations between the customers and the brand. Annamalai and Chandrasekaran (2019) studied retail brand equity and argued that consumers' contact with a brand, whether direct or indirect, will help to create perceptions and associations of the brand and this, in turn, leads to brand personality. Many authors support this claim (Aaker, 1996; Ahmad and Thyagaraj, 2015; Kim et al., 2010; Phau and Lau, 2000).

Kim et al. (2010) studied dimension of brand personality and claimed associations to be one of the most important dimensions of brand personality. Research by Patra and Mahapatra (2019) supported this view. Hence, after confirmation from the qualitative study and adequate support and evidence from the literature, it can be hypothesised as follows.

*Hypothesis 6: In a retail facility, the higher the transaction-specific associations are, the higher the chance of customers perceiving brand personalities is in favour of the retailer. (H6).*

#### 5.3.4.3 Nullify Hypothesis between Transaction-specific Reputation and Transaction-specific Perceived Value

As evident from Section 5.3.2, the construct named ‘perceived value’ was removed from the revised conceptual model, and the justifications were discussed in that section. In relation to dropping this particular construct, two hypotheses had to be nullified as well, one of which is the relationship between transaction-specific reputation and transaction-specific perceived value. Since there was a direct link hypothesized between perceived reputation and transaction-specific brand equity (discussed below in section 5.3.4.5), the ‘perceived value’ was unnecessary and so was the relationship between transaction-specific reputation and transaction-specific perceived value.

The main reason for nullifying this relationship was because the respondents believed perceived value to be just one of the concepts that is part of reputation; hence, it is included in the construct already, especially in this transaction-specific conceptual framework, and this reputation is enough to impact the transaction-specific brand equity. Some of the responses that support this claim are stated below.

*What is perceived by our customers is exactly what our reputation is. (ME, Commercial Manager, M&S)*

*But to me, perception - what you are saying is perceived value - is the same as reputation. Reputation to me means what is perceived by my customers. That’s how I see it. (MS, Business Manager, McDonald’s)*

*If it's a worldwide brand, then its reputation is already in my mind, and even though there is a problem in my transaction or I have a negative perception, I would still rely on them. Basically, the perception could have been just for one day or so... mistakes happen so a one-day perception wouldn't really change the perceived reputation of that company for me. (FG-A, Academics)*

The above responses claim that ‘reputation’ and ‘perceived value’ are similar concepts and that only one of them needs to be defined for this particular study. On the other hand, other respondents claimed that the reputation construct is the ultimate construct that affects transaction-specific brand equity, and the perceived value construct has no role to play. The responses are as follows.

*Customers having a positive perception means that they believe the company to have a good reputation, and reputation is an intangible asset for an organisation, so obviously, this will add value to the company. (JA, Marketing Manager, Coffee Republic)*

*A good reputation means more loyal customers and increased brand equity. (SH, Brand Manager, SSP)*

*The company reputation is all built up from the satisfaction of customers. So it's a chain effect really. Satisfaction to reputation and then reputation to more loyal customers to again better reputation, and the end result is that the company gets more money overall. (FG-C, Bus Drivers & Retail Staff)*

Returning to the literature, it was evident that there were no strong justifications to disagree and deny with what was claimed by the respondents during the qualitative study. Although in Chapter 3, some of the literature aimed to justify the relationships suggested by a few authors (Arslanagic-Kalajdzic and Zabkar, 2017; Leppäniemi et al., 2017; Lindgreen and Wynstra, 2005; Tai, 2011; Wu and Guan, 2021), the claims were too weak and indirect to establish the relationship strongly.

Chaudhuri (2002) argued that brand reputation in itself is an assessment of its value (i.e., perceived value) to consumers, and this claim is in line with the qualitative study. Some authors studied perceived value as an antecedent to trust and showed that this relationship is mediated by the reputation of the service provider (Milan and Toni 2012; Milan et al., 2013). Researchers (Agustin and Singh, 2005; Babić-Hodović et al., 2011; Caruana and Ewing, 2010; Davis and Worthington, 1993; Lai et al., 2010; Nguyen, 2006) have suggested that perceived value may be a driver of reputation.

Briefly, it is evident from both the qualitative study and from the literature that perceived value and reputation are two constructs that can be conceptualised in a similar manner and that one is a subset of the other. Hence, one of the constructs is sufficient to justify the concept. However, although the perceived value construct was dropped, the concept was not totally ignored, and based on the fact that they are similar in terms of conceptualising a construct, the reputation construct in the revised model was also renamed as 'perceived reputation' as discussed above in the previous section (5.3.3.1), thus keeping both elements together.

#### 5.3.4.4 Nullify Hypothesis between Transaction-specific Perceived Value and Transaction-specific Brand Equity

As discussed in the section above, the same justifications are valid for nullifying the hypothesis that claimed a positive relationship between perceived reputation and transaction-specific brand equity. It was clearly evident, as was discussed in the previous section, that ‘reputation’ directly affects brand equity, and thus there is no need for a second construct such as ‘perceived value’. Rather, both concepts combined and renamed together as ‘perceived reputation’ are shown to have a positive relationship with transaction-specific brand equity. Thus, the hypothesis that claimed a positive relationship between transaction-specific perceived value and transaction-specific brand equity is nullified in the revised model.

During the literature review, it was evident that the perceived value construct did have a strong and positive relationship with transaction-specific brand equity (Jahanzeb et. al.; 2015; Kim and Kim 2004; Malik 2012; Ng et al., 2014), and some researchers claimed ‘perceived value’ to be a vital antecedent of a brand’s equity (Anselmsson et al., 2017; Dam, 2020; He and Li, 2011; Jahanzeb et. al.; 2015; Liu et al., 2015; Matthews et al., 2014; Ng et al., 2014; Susanti et al., 2020). However, the literature review encompassed the concept ‘perceived value’ and not ‘transaction-specific perceived value’, which is not exactly the same. With regard to this study, a different view of this relationship was evident after analysing the qualitative study, considering some of the responses such as the following.

*But to me, perception - what you are saying is perceived value - is the same as reputation. Reputation to me means what is perceived by my customers. That’s how I see it. (MS, Business Manager, McDonald’s)*

*A good reputation means more loyal customers and increased brand equity. (SH, Brand Manager, SSP)*

*The company reputation is all build up from satisfaction of customers. So, it’s a chain effect really. Satisfaction to reputation and then reputation to more loyal customers to again better reputation and the end result is that the company gets more money overall. (FG-C, Bus Drivers & Retail Staff)*

*The more customers are saying good, the better reputation is.. It is indeed greatly increasing our brand name [and] our brand value. (SR, Store Manager, Costa Coffee)*

Taking into account the findings from the qualitative study and the fact that the perceived value construct is dropped from the revised model, and to best fit the transaction-specific model, the hypothesis that claimed to have a positive relationship between transaction-specific perceived value and transaction-specific brand equity was nullified and replaced by a new hypothesis that takes into account both the perceived value and reputation concepts, now named 'perceived reputation', which impacts on transaction-specific brand equity directly. This new hypothesis is discussed and justified in the next section.

#### 5.3.4.5 Positive Relationship between Perceived Reputation and Transaction-specific Brand Equity Hypothesised

Since the perceived value was deleted from the revised hypothesis and the reputation construct was renamed 'perceived reputation', as discussed in detail in the previous sections, a positive relationship was hypothesised between this renamed construct and transaction-specific brand equity; thus, a new hypothesis was introduced.

Carmeli and Tishler (2004) defined (corporate) reputation as the stakeholders' perceptions about an organisation's ability to create value relative to competitors and to contribute to greater organizational performance; thus, it is one of the most essential assets which can give retailers a competitive edge (Rindova et al., 2005). Another definition of reputation is the notion that a corporation has garnered significant esteem or respect (Almeida and Coelho, 2017; Weiss et al., 1999), which means that perception is a subset of reputation and thus together they can affect brand equity (Mariutti and de Moura Engracia, 2019). Aaker and Keller (Yoo et al., 2000; Yoo and Donthu, 2001) investigated this issue in depth and suggested the brand equity concept; they also examined it within the context of the customer approach (Kayaman and Arasli, 2007; Huang and Cai, 2015). According to the Brand Equity Model created by Aaker (1996) and Keller (2003) as cited by Yoo and Donthu (2001), the value of a product or service (i.e., brand equity) is founded on the company's reputation.

A perceived reputation can boost customer retention and allow prices to increase and then this will affect perceived reputation's effect on (transactional) brand equity (Caruana and Ewing, 2010; Fombrun and Van Riel, 1997). The empirical results from Lai et al. (2010) showed the same findings.

The brand equity evaluation needs to effectively assess consumer brand perceptions to design marketing tactics that are consistent with consumer values (Isberg and Pitta, 2013). This is not just for consumers who buy a brand but also for managers and marketers who assess the success of the brand and develop strong strategies (Yasin et al., 2007). The brand equity assessment therefore provides an effective tool to analyse both consumer perceptions and reputation (So and King, 2010).

Shahani et al. (2019) researched brand equity in rapidly changing FMCGs and demonstrated a strong connection between reputation and brand equity. They suggested that renown plays a major influence in creating consumer base brand equity and that comparable findings were found by authors such as Brickley et al. (2002) and Mariutti and Moura Engracia (2019). A paper by Sözer et al. (2017), on the other hand, demonstrates the association between the two, albeit in reverse. Almeida and Coelho (2017) examined the role of reputation in shaping customers' opinions on brand equity. Chaudhuri (2002) created a model of brand equity results and suggested that consumer factors of brand familiarity and brand uniqueness are associated with brand reputation. A similar finding became evident from the qualitative study where respondents believed that perceived reputation has a positive and direct impact on transaction-specific brand equity. Some of the responses are presented below.

*A good reputation means more loyal customers and increased brand equity.* (SH, Brand Manager, SSP)

*Positive perceived value, especially of a company's reputation, is very important for developing brand equity.* (ME, Commercial Manager, M&S)

*The company's reputation is all built up from the satisfaction of customers. So, it's a chain effect really. Satisfaction to reputation and then reputation to more loyal customers to again better reputation and the end result is that the company gets more money overall.* (FG-C, Bus Drivers & Retail Staff)

*The more customers are saying good, the better reputation is [...] It is indeed greatly increasing our brand name [and] our brand value.* (SR, Store Manager, Costa Coffee)

*Customers having positive perception means that they believe the company to have a good reputation, and reputation is an intangible asset for an organisation, so obviously, this will add value to the company.* (JA, Marketing Manager, Coffee Republic)



For researchers, reputation (Branco & Rodrigues, 2006; Cable & Turban, 2003; Wang, 2012) is one of the most essential tools to develop or mimic lasting competitive advantages (Branco and Rodrigues, 2006). Reputational assets such as immaterial resources can lead to a favourable customer attitude to and success of a company (Galbreath, 2005). Therefore, reputation can be stated as a useful immaterial asset for a corporation (Branco and Rodrigues, 2006). Melo and Garrido-Morgado (2012) indicated that reputation plays a role as a signal of critical features and as a source of competitive advantage and showed that, in the context of this study, a good reputation could contribute to increased transaction-specific brand equity.

Thus, taking into account the findings from the qualitative study and according to the literature, in line with many researchers and authors (Almeida and Coelho, 2017; Dam, 2020; Branco and Rodrigues, 2006; Cable and Turban, 2003; Caruana and Ewing, 2010; Galbreath, 2005; Shahani et al., 2019; Susanti et al., 2021; Wang, 2012) who support the claim, it can be hypothesised as follows:

*Hypothesis 7: In a retail facility, the higher the customers' perceived reputation is, the higher the transaction-specific brand equity is for that retailer. (H7)*

#### 5.3.4.6 Hypothesized Positive Relationship between Transaction-specific Satisfaction and Transaction-specific Brand Equity

With several of the hypothesis changing, whether they tested positive or negative, the relationship between transaction-specific satisfaction and transaction-specific brand equity was also affected and thus conclusions drawn from the previous conceptual framework displayed in Chapter 3 were revised. A direct positive relationship between transaction-specific satisfaction and brand equity was established after conducting the qualitative study. This particular relationship was further supported by the mediation effect of reputation between the two constructs, which is discussed in Section 5.3.6.1 below.

From the qualitative study, a significant amount of the information that was gathered pointed to a positive relationship between transaction-specific satisfaction and transaction-specific brand equity. Some of the statements below clarify this relationship.

*And we try to make sure every single customer undergoes excellent experience at every touch point so as to create a pool of satisfied customers. Our customers' satisfaction is our prime goal and priority. It is, after all, our reputation and adds value to our brand. (ME, Commercial Manager, M&S)*

*Satisfied customers are our assets. We always strive for a long-term relation with our customers. (ME, Commercial Manager, M&S).*

*I think it adds value. Every time you add a state-of-the-art system when it comes to paying, it leaves a positive impact on customers and customer care, which eventually brings value to the business and the company overall. (ZS, Retail Manager, Boots)*

*If it is a financial institution, and they meet the expectations, and they are doing it to make the customer's experience better, that makes them happy and also your company more trustworthy towards them. And this sets their brand equity higher; so does the brand value, as they are more chosen by the customers. (HS, Bank Manager, HSBC)*

*And as they feel strongly about when they use contactless, it would give them more confidence and make them safe and happy, so they would come back more and more, so it helps our brand equity! (JA, Marketing Manager, Coffee Republic)*

The above statements by the respondents show clearly that there is a direct and clear link between transaction-specific satisfaction and transaction-specific brand equity. Those statements claim value is added to the brand by taking into account customer satisfaction and also by how satisfied customers can help in building their brand equity. However, some responses also showed the impact on customer satisfaction on brand loyalty, which is one of the most researched antecedents of brand equity.

Numerous researchers (Aaker, 1992; Alhaddad, 2014; Altigan, 2005; Chahal and Bala, 2010; Chrisjatmiko, 2019; Gordon et al., 1993; Hem and Iversen, 2003; Kim et al., 2008; Lesmana, 2020; Loureiro, 2013; Moisescu, 2006; Nam et al., 2011; Šerić and Gil-Saura, 2019; Sharma and Jain, 2019; Wann-Yih et al., 2020) have claimed that brand loyalty is one of the strongest and most important parts of brand equity and hence, that brand loyalty leads to higher brand equity. Since the literature supports this claim, it was easy to link the brand loyalty factor derived from the qualitative findings and link

the satisfaction factor to brand equity (transaction-specific for this study). Some of such statements by the respondents are presented below.

*It's important for customers to come and feel valued. Even after having the right card and PIN number, the transaction process is not going through in the right way. When the customers come and they get quick service, they feel confident, and they like to come back again to the restaurant. (MS, Business Manager, McDonald's)*

*We try to make sure that they are happy from every aspect because this will make them come back. (WV, Customer Service Manager, Vital Ingredients)*

*I think a positive experience has its magical effect. If someone comes to our store and leaves with a positive customer service, they would definitely come back to us or they would share with their friends and family how easy and convenient it is to be in our store. So that usually promotes and develops business. (ZS, Retail Manager, Boots)*

*Sometimes, when they are satisfied, they will come back again. (FG-B, MBA Students)*

*Well, it is important because if I am satisfied with Tesco, I will go there again and again. (FG-C, Bus Drivers & Retail Staff)*

*If the customer is happy, they're going to be more loyal. (MS, Business Manager, McDonald's)*

Brand equity is regarded as a very important concept in business practice as well as in academic research because marketers can gain competitive advantages through strong brands (Hussain et al., 2020; Sallam and Wahid, 2015; Wang et al., 2008; Yao et al., 2021). Hence, every possible way to increase brand equity is important for all retailers. Therefore, it is crucial to identify the antecedents of brand equity. After the findings obtained from the qualitative study, the literature was then re-checked to identify interesting and similar findings between transaction-specific satisfaction and transaction-specific brand equity.

York et al. (2009) mentioned that in the literature on marketing and management, customer satisfaction, specifically service meetings, is a well-documented and important aim, mainly because empirical studies build a connection between customer satisfaction, customer loyalty and long-term

profitability, which ultimately leads to brand equity. Lusch and Vargo (2006) claimed that the customer is always a value co-creator that eventually leads to brand ownership. Meanwhile, Anderson's associated network memory model (1993) provides a robust platform for clarifying the links between consumer satisfaction and retail brand equity. This influence of cognitive psychology has been used by several studies to explain marketing phenomena (Pappu and Quester, 2006). For example, both Aaker (1991) and Keller (1993) conceptualized brand equity on the basis of the memory associations of consumers, while Washburn et al. (2004) appreciated the function of brand equity in brand alliances using an associated learning framework (Pappu and Quester, 2006).

Researchers considered consumer happiness an essential predictor for long-term company performance, as it contributes to brand equity (Nam et al., 2011). Pappu and Quester empirically investigated the link between satisfaction and brand equity in 2006 based on the Aaker's brand equity model (1992, 1998) and found a positive and direct association. Ha et al. (2010) and Biedenbach et al. (2015) conducted a similar study which further verified the favourable impact of satisfaction on brand equity. So, in view of the outcomes of qualitative investigation and after careful research into literature, the following hypothesis can be formed:

*Hypothesis 8: In a retail facility, the higher the transaction-specific satisfaction of the customers is, the higher the transaction-specific brand equity is for that retailer. (H8)*

#### 5.3.4.7 Positive and Direct Relationship between Transaction Experience and Transaction-specific Brand Equity Hypothesised

After the qualitative study, a very interesting finding came to light, which was completely overlooked in the previous literature review. A new relationship was discovered directly between the focal construct and the ultimate outcome. Thus, another hypothesis was introduced in the revised model showing a positive relationship between transaction experience and transaction-specific brand equity. The relationship between these two constructs could apparently answer RQ2 of this study. Hence, this relationship in the revised model became an inevitable part of the research. This finding was mostly evident in the focus groups that were conducted. Some of the responses are stated below-

*Some restaurants don't have a contactless payment system. They only accept cash, which is a very annoying experience and that affects their reputation and equity for sure. (FG-A, Academics, R-5)*

*The entire transaction experience has to be brilliant, which includes trust, performance, speed, and things like that, and then only will it add value or what you are calling brand equity. (FG-B, MBA Students, R-2)*

*Safety, security, performance is important for a better transaction experience that can lead to brand equity. (FG-A, Academics, R-3)*

*Speed, enjoyment, satisfaction, reputation are important for a better transaction experience that can lead to brand equity. (FG-B, MBA Students, R-5)*

*I think trust and satisfaction are the main thing when it comes to transaction and also safety, and if a retailer can maintain all these, they can ensure a positive transaction experience which will not only get them profits and long-term relationships with the customers but also affect their brand equity, which is, I guess, what you are studying. (FG-A, Academics, R-1)*

However, some individual interviews also showed similar findings such as the following.

*...but with contactless cards, you can just come and touch, and so it has a great influence on our sales and equity, what you are calling transaction-specific brand equity. (MS, Business Manager, McDonald's)*

*The contactless makes it easier for them to make it quicker, so they don't have to wait longer. This makes it a smooth experience for them, and definitely it impacts our brand equity. (SH, Brand Manager, SSP)*

Before coming to any conclusion and establishing a relationship between the two constructs, it was essential to dig into the literature, whereupon, surprisingly, a significant amount of evidence was found to support the claim. Many authors and researchers (Altaf et al., 2017; Beig and Nika, 2019; Biedenbach and Marell, 2010; Chen and Qasim, 2021; Chen, 2012; Cleff et al., 2014; De Chernatony et al., 2006; Farhat et al., 2020; Ind and Bjerke, 2007; Jeon and Yoo, 2021; Keller et al., 2011; Lin, 2015; Loureiro and Sarmiento, 2018; Mascarenhas et al., 2006; Moreira et al., 2017; Pina and Dias, 2021; Rodrigues et al., 2017; Sarker et al., 2019; Shahzad et al., 2019; Sheng and Teo, 2012;

Zarantonello and Schmitt, 2010, 2013) examined the relationship between experience and brand equity and claimed there was a positive and direct link between the two constructs.

Experiences from the branding perspective are the impressions that customers develop due of their contact with brands (Carbone and Haeckel, 1994; Klaus and Maklan, 2007). Contemporary research suggests that customers are willing to choose one brand over another in terms of all the experiential advantages of a brand, which demonstrates the possibility of a direct relationship between brand experience and the capacity for consumer brand equity (Zarantonello and Schmitt, 2010).

Empirical data from prior branding research reveals that customer experience generated by consumer interactions with the brand has a direct effect on brand insights (Frow and Payne, 2007), brand choice (Bennett et al., 2005), and eventually, brand equity (Bennett et al., 2005) (Berry, 2000). The concept that the power of a brand resides in the minds of consumers and hinges on what customers learn about the brand through their direct personal experience, (Keller, 2003) shows that customer experience has an impact on brand equity (Moreira et al., 2017).

The brand resonance model demonstrates step-by-step procedures in establishing brand equity and in building customer brand associations based on our brand experience through direct or indirect contact (advertising) (Aaker, 1991; Keller et al., 2011). Brand equity is evaluated in four ways based on the conceptualisation of Aaker (1991, 1996): brand awareness, marks associations, perceived quality and brand loyalty. Authors (Biedenbach and Marell, 2010; Cleff et al., 2014; Moreira et al., 2017; Shachzad et al., 2019) who have analysed the influence of customer experience on brand equity claim there is a favourable relationship.

The link between customer experience and brand equity has been studied from many perspectives by previous authors. For instance, Biedenbach and Marell (2010) studied in a business-to-business services setting, Altaf et al. (2017) and Loureiro and Sarmiento (2018) in the context of banking, Chen (2012) and Rodrigues et al. (2017) in an online retailing context, Shahzad et al. (2019) and Sheng and Teo (2012) in the context of mobile phone industry, Xu and Chan (2010) in the aspect of hotel industry, Zarantonello and Schmitt (2013) in a study on event marketing, Moreira et al. (2017) in the catering services context, and Lin (2015) and Sarker et al. (2019) in the context of the airline industry; all of them have empirically demonstrated a positive impact of customer experience (in their own context and perspectives) on brand equity and claimed a clear direct relationship between the two constructs.

De Chernatony et al. (2006) believed that the interactions between staff and consumers play a significant part in generating an experience that improves brand equity in consideration of unique service qualities. Therefore, it can be stated that improving brand equity means providing customers with engaging and enduring experiences (Ind and Bjerke, 2007; Mascarenhas et al., 2006). Furthermore, recently, authors have emphasised the relationship between the two constructs (Beig and Nika, 2019; Farhat et al., 2020). Thus, taking into account all the claims and evidence from the literature after the emerging findings from the qualitative study, it is hypothesised as follows.

*Hypothesis 13: In a retail facility, the speedier, more convenient, enjoyable, and secure a transaction experience is, the higher the transaction-specific brand equity for that retailer is.*  
(H13)

### **5.3.5 The Moderation Effect of Age and Profession**

The renowned work of Baron and Kenny (1986) emphasizes the role and impact of moderators and mediators in particular research. They believed that the moderator is either a qualitative (e.g., sex, race, class) or a quantitative variable (e.g., reward level), which changes the direction and/or strength of the relationship between a variable of the independent or the predictor and a dependent variable or criterion. The authors indicated that, in particular, a moderator is a third variable in a correlation analysis framework affecting the null order correlation between two different variables (Baron and Kenny, 1986).

While conducting the qualitative study, interestingly, two moderation effects on certain relationships between constructs were found; one is the moderation effect of age on the relationship between transaction experience and transaction-specific trust and the other is the moderation effect of profession on the relationship between the focal constructs (transaction experience) and the final outcome (transaction-specific brand equity). Moderator variables specify when certain effects will hold (Baron and Kenny, 1986). These moderators were ignored/unidentified in the previous conceptual model presented in Chapter 3, but during the interviews and the focus groups, the existence of such moderation effects was clearly evident as they dominated the relationships between the mentioned constructs. Thus, after careful analysis and probing, these moderation effects were reflected in the revised conceptual model presented at the end of this chapter. Further analysis on how these moderators were discovered is presented in the following sections below.

### 5.3.5.1 The Moderation Effect of Age on the relationship of Transaction Experience and Transaction-specific Trust

A prevalent view in various studies of marketing (Burns et al., 2021; De Waelle et al., 2021; Djafarova and Rushworth, 2017, La Ferle and Morimoto, 2009) is that as people age and move through different life stages, their decision-making styles change, and these changes determine how they experience things around them. Moreover, this change affects the preferences of their self-concepts and alters the way they respond to certain factors including technology, such as contactless or Apple Pay. It is believed that younger and older adult users may use and respond to any technology innovation very differently (Chung et al., 2010).

Research shows its significance in technology decision-making (e.g., Akhter, 2003, Porter and Donthu, 2006), while a large number of experts stressed the risk of an increasing digital split between the generations (e.g., Paul and Stegbauer, 2005). It was found that elderly people may have different perceptions of technology or internet characteristics than younger adults (Chung et al., 2010). During the qualitative study, this important and interesting fact became evident. While analysing the relationship between transaction experience and transaction-specific trust, it was found that the age factor had a significant impact on the relationship between the two. In line with the literature stated above, it was clear that younger customers experienced more trust towards contactless payment (contactless technology was the basis for data collection) compared to elderly ones. This finding emerged while interviewing the managers/directors of various retail outlets. Some of their statements are presented below.

*So, the perceptions of customers at my workplace the kind I get depends on the age. Younger customers like to try contactless more and do faster transaction whereas elder customers are more worried about the security and trustworthiness. (FG-B, MBA Students)*

*However, the senior customers are the ones who are hard to convince, as I guess they don't have much trust in technology like contactless and all. (ZS, Retail Manager, Boots)*

*One of the customers I had, she'd never used contactless, and she didn't want to. She was quite old, and she thought if she used her contactless, others would get all her data. (JA, Marketing Manager, Coffee Republic)*



*I would say the younger generation are happier to use it, as they are into technology and know and rely on it, so they have that faith compared to older people, who are reluctant to use any sort of new technology. (FG-B, MBA Students)*

While these statements are directly posed by some of the respondents, others elaborated on their practical experience with elder customers compared to their younger customers in more detail.

*There are too many customers who are around 40 to 60, who tried to put the card inside the chip and pin but it was taking long time, and we showed them how contactless card works, and they were surprised. ... As the middle-aged, elderly aged people don't know how to use it, so they are in the middle of using it more to not using it, just because they don't know how to use it. That's why they are fewer in number than the users, and thus there is a difference in the level of trust between younger and elderly customers. (MS, Business Manager, McDonald's)*

*If it is an older customer, and they know the company.... they hesitate when we say the transaction didn't go through, but they see on their phone that it did, they get a bit confused and ask for a receipt. [When asked about younger ones] Well, they are ok with it most of the time. They are rushing and want a transaction quickly. Plus, they are used to technological stuff. (WV, Customer Service Manager, Vital Ingredients)*

*Especially the elder generation don't believe much in online transactions and this e-transaction like contactless. On the other hand, younger generations prefer online shopping and all. (FG-C, Bus Drivers & Retail Staff)*

Moreover, while studying 'brand personality', most of them personalised contactless payment as 'young', which shows that the younger generation tend to adopt or use this technology more easily as compared to the older generations (FG-B, FG-D, SH, SB, SR, ZS), and this could be due to the 'age to trust' equation (age as a moderating factor between experience and trust) as mentioned above. The age factor affects the proactive behaviour shown for external stimuli, and therefore the number of experiences reduces with age (Gross et al., 1997; Lubin et al., 1988; Steinberg et al., 2008). This is because younger people look for stimulation and emotions (Costa and McCrae, 1986) to develop a new technology like contactless and Apple Pay. They are more change-oriented and less conservative

(Zuckerman, 1979). In addition, younger people have higher levels of extraversion, which means they are sensation-seeking and are open to new experiences (Costa et al., 1986).

Huaman and Merunka (2019) studied brand experience and stated that a preference for sensory stimulation linked to age may influence the effect of brand experience on brand attachment, which leads to brand trust. On the other hand, Baron and Kenny (1986) suggested that the moderating effect implies that the causal relationship between two variables changes as a function of the moderator variable. From the perspective of this particular research, the same concept can be applied to the role of age in the relationship between transaction experience and transaction-specific trust. Thus, taking into account the findings derived from the qualitative study, which is later supported by the literature, it is hypothesised as follows.

*Hypothesis 14: In a retail facility, the transaction-specific trust during transaction experience (H1) will be higher and much stronger among younger customers compared to the elderly ones. (H14)*

#### 5.3.5.2 The Moderation Effect of Profession on the Relationship of Transaction Experience and Transaction-specific Brand Equity

In modern society, the professions have a very important position, particularly in a civilization like ourselves (Western) which is characterized by minute labour divisions based on technological specialization and many fundamental elements of social organisation. Professional activities play a major part in moulding and determining their conduct, attitudes, and experience and the way in which they affect other bodies, such as retail brand equity (Greenwood, 1957). Although a few studies have been conducted with occupation as a moderator (Fila et al., 2017; Fryxell et al., 1991; Kok et al., 2020; Landrum et al., 2010), no existing literature was found on profession being analysed as a moderator, especially in the marketing literature. Hence, the decision to establish ‘profession’ as a moderator is based solely on the qualitative study.

While revising the conceptual model and after analysing the qualitative data, an interesting finding emerged from the qualitative study. In the process of resetting the model, the study required an analysis of the direct relationship between the focal construct (transaction experience) and the actual output (transaction-specific brand equity), and hence, while taking that relationship into consideration and

going back to the qualitative raw data, the data were organised, arranged, and analysed for the second time (manually only this time), and this led to the emergence of some interesting findings.

It was interesting to find out that the direct relationship between transaction experience and transaction-specific brand equity was somehow moderated by an individual's profession. The missing link between these two constructs, if found, could be very useful to answer RQ2 of this study. Hence, it was crucial to add this relationship and, in the process, the moderator 'profession' came to play a very important role in the relationship between the two constructs. More interestingly, while conducting the focus groups, each of the groups were segregated according to their profession for a better flow of conversation and for the ease and comfort of the participants. Coincidentally, this characterising of the groups helped significantly in analysing 'profession' as a moderator. It was very easy to carry out the rest of the analysis once this link was found. For a better understanding, detailed analysis per group is presented in an organised and segregated (according to profession) manner.

There were four focus groups conducted in total, namely, FG-A, FG-B, FG-C, and FG-D. It was very clear that each focus group responded very differently, while the participants in the same group responded more or less similarly. In addition, the discussion in the focus groups gave rise to some valuable quotations from participants that relate to the relationship between transaction experience and transaction-specific brand equity. FG-A consisted of participants who were either academics or researchers. Some of their statements are presented below.

*Some restaurants don't have a contactless payment system; they only accept cash, which is a very annoying experience, and that affects their reputation and equity for sure. (FG-A, Academics)*

*I think trust and satisfaction are the main thing when it comes to transaction experience which will not only get them profits and long-term relationships with the customers, but also affects their brand equity, which is, I guess, what you are studying. (FG-A, Academics)*

*Safety, security, performance is important for a better transaction experience that can lead to brand equity. (FG-A, Academics)*

From FG-A, it can be noticed that the academics and researchers believed that satisfaction, trust, reputation, security, and performance are the missing link between transaction experience and

transaction-specific brand equity. During the discussion, they all seemed to agree on this point. Similarly, when conducting the second focus group, a different set of views came up. Some of the discussion points from FG-B are stated below.

*I personally don't believe that transaction satisfaction could only make a company reputable what so ever. Rather, the quality, customer service ... things like that matter more. The entire transaction experience has to be brilliant, which includes trust, performance, speed, and things like that, and then only will it add value or what you are calling brand equity. (FG-B, MBA Students)*

*Speed, enjoyment, satisfaction, reputation are important for a better transaction experience that can lead to brand equity. (FG-B, MBA Students)*

Focus group-B comprised mainly MBA students who all came to a common agreement that for an increase in transaction-specific brand equity, the transaction experience has to be speedy, enjoyable, satisfactory, and trustworthy. It should also be noted that this particular group consisted of young MBA students and, for them, speed, good performance, and enjoyment during their transaction experience was the first priority, and this makes more sense after analysing the moderator 'age', as discussed in the previous section. Some such statements are given below.

*So, the perceptions of customers at my workplace, the kind I get, depends on the age. Younger customers like to try contactless more and do faster transactions whereas older customers are more worried about the security and trustworthiness. (FG-B, MBA Students).*

*I would say the younger generation are happier to use it, as they are into technology and know and rely on it, so they have that faith compared to older people, who are reluctant to use any sort of new technology [all agreed]. (FG-B, MBA Students)*

*Positive perceptions affect brand equity positively. (FG-B, MBA Students)*

Hence, according to them, when a customer has a positive perception as considered in the conceptual model (transaction-specific satisfaction, transaction-specific trust, transaction-specific performance, transaction-specific associations, and so on) it has impact on the brand equity.

The third group was a more versatile group and consisted of several subgroups. There were subgroups of retail workers, TfL bus drivers, construction workers, and housewives. Within the group, the subgroups had a similar profession and had a similar consensus. After the qualitative data had been carefully analysed, it was summarised that the following was the missing link for each subgroup whereby a positive transaction experience can lead to transaction-specific brand equity (RQ2).

- Retail workers: Speed, convenience, satisfaction
- Housewives: Enjoyment, convenience, satisfaction
- Bus drivers: Security, trust
- Construction workers: Trust

The final focus group comprised several office executives/managers from different offices in the City of London. These office employees, like the other groups, also agreed as to what is the missing link between transaction experience and transaction-specific brand equity. For this group of people, it was mainly speed, convenience, and satisfaction. This makes sense because they have busy lifestyle, and a quick and convenient transaction is the most desired aspect of transaction. Some of the evidence is presented below.

*Everybody is in a rush, and they just want their product and to go home. Nobody will go to a supermarket where they have to wait for long. It could have a bad impact on them, too, like their reputation, profits, and all. (FG-D, Office Workers)*

*I think it helps the big marketers because when someone goes to shopping for £20, they like to touch and don't have to wait much, and the payment is done. (FG-D, Office Workers)*

*I think those people who are in rush and want to buy something, they would not like to spend more time [and] nor will the supermarkets want customers to linger around their checkout causing long queues. (FG-D, Office Workers)*

*It's all about time when it comes to contactless, less time is more convenient for us working 5 days a week, and I am pretty sure quick, simple payment means quicker money for them, too. (FG-D, Office Workers)*

*It's very comfortable anywhere, on the bus, in shops, and for everything, and I guess it's convenient for them too - less hassle, less work, and more money. (FG-D, Office Workers)*

*Yeah sure, because when you go to a supermarket and have a bad experience, then I will never recommend that place to my friends or family, and for that, they may lose their customers, which is bad for them. (FG-D, Office Workers)*

*If someone has a good experience about a company, he will tell more people good things about the company. And if he has bad experience, he will definitely talk about that. (FG-D, Office Workers)*

*I don't like to go in places where there are massive queues because it's all about [being] time consuming. Well, basically, I avoid the shops where I have to stay in a queue. To me, really, less queue means good experience, and long queue means bad experience. (FG-D, Office Workers)*

*If I liked a specific shop, then I would recommend that to my 10 other friends, and they will also go there, so in this case, that specific shop will have 10 more customers. (FG-D, Office Workers)*

Hence, it is evident from the above justifications in light of the findings from the qualitative study that the impact of transaction experience on transaction-specific brand equity is moderated by the profession of an individual. Baron and Kenny (1986) proposed that moderation means that the causal relationship between two variables changes according to the moderator variable. The focus groups conducted were critical to this finding, whereby this moderator was added to the revised model. As a result, based on these justifications, it is hypothesized as follows.

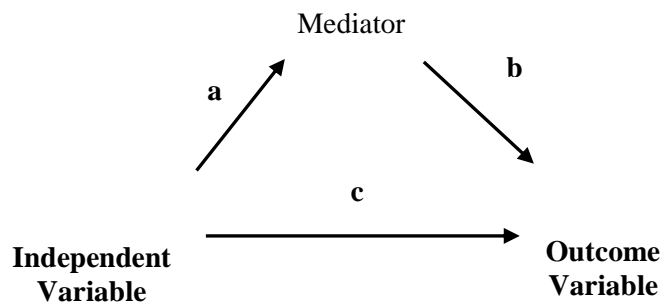
*Hypothesis 15: In a retail facility, the impact of transaction experience on transaction-specific brand equity will differ and will depend highly on the profession of the individual customer. (H15)*

### **5.3.6 The Mediation Effect of Perceived Reputation and Brand Personality**

The role of mediating variables has long been recognized by psychologists. A variable may be stated to operate as a mediator in so far as the predictor-criterion relationship is accountable (Baron and

Kenny, 1986). According to the authors, mediators explain how exterior physical occurrences have internal psychological relevance. While mediating variables indicate when certain effects occur, mediators talk about how or why such effects occur (Baron and Kenny, 1986). Figure 5.1 displays the nature/impact of the mediation effect.

Figure 5.1: The Mediation effect



Source: Baron and Kenny (1986)

Besides the moderators that were discovered during the qualitative analysis, a couple of mediation effects were also evident. The mediators ‘perceived reputation’ and ‘brand personality’ were discovered to be an essential addition to the revised model. Each mediation effect and its impact in light of the qualitative analysis are discussed in more detail in the next two sections below.

#### 5.3.6.1 The Mediation Effect of Perceived Reputation on Transaction-specific Satisfaction and Transaction-specific Brand Equity

After revision of the conceptual model in this chapter, several hypotheses were added and others deleted accordingly. After conducting the qualitative study, a clear positive relationship between perceived reputation and transaction-specific brand equity was established and is discussed above in this section (H7); this was supported by the literature and further validated by the qualitative study. On the other hand, a positive relationship was also found between transaction-specific satisfaction and transaction-specific brand equity (H8), which again was validated in this chapter.

Some important changes among these constructs can be noted in this chapter and in the revised conceptual framework posed towards the end of this chapter. In addition to all these revisions, a further qualitative finding was evident; a mediation effect of perceived reputation was found while conducting the qualitative study. Indeed, a very clear effect of mediation was found to exist between the

relationship of transaction-specific satisfaction and transaction-specific brand equity. Some brief quotations to demonstrate such facts arising from the qualitative study are presented below.

*When customers undergo a positive experience, it's no wonder they will be happy and satisfied. ...we try to make sure every single customer undergoes an excellent experience at every touch point so as to create a pool of satisfied customers. Our customers' satisfaction is our prime goal and priority. It is after all our reputation and adds value to our brand. (ME, Commercial Manager, M&S)*

*Customer satisfaction is the main thing for us. Our image, reputation, all depend on their satisfaction level. If they are not satisfied with any of it, they wouldn't come back and our reputation would be affected, so it is one of our key duties to make sure that they are satisfied. (MS, Business Manager, McDonald's)*

*Well, the reputation matters a lot when creating perceptions in the customers' minds. This is just one factor, but maybe it is the most important factor that influences customers' perceived value. As I mentioned, our reputation is the representation of the UK's reputation; although the Underground is London's travel system, it is, however, the capital of UK, isn't it. And so, if we have a lot of unhappy customers, we will have a negative reputation of London Underground that will result in a negative perceived value towards the UK also. (SB, Station Supervisor, TfL)*

*I guess reputation is the most important aspect of any organization. Only for a well-reputed company will customers have the trust, the passion, and the will for entering that store .... I'm sure our loyal customers and also new customers have a great deal of faith in our brand reputation. We have our reputation recognized globally. We are known for our quality, reputation, brand name, and customer service. (ME, Commercial Manager, M&S)*

*I think they are much satisfied.... The more customers are saying good, the better reputation we have. Because by getting there it is just not only from the survey what we get. As a company this is the consecutively last 7 years, this is the best coffee house in UK. (SR, Store Manager, Costa Coffee)*



*If the customer is happy, they're going to be more loyal. Our reputation will also go up. (MS, Business Manager, McDonald's)*

*Positive perceived value especially of a company's reputation is very important for developing brand equity. Like if our customers are very happy with us and have positive perceived value towards M&S they are likely to become brand loyal to M&S and come back again and again. (ME, Commercial Manager, M&S)*

*If it's a worldwide brand, plus `I am happy with them, then the reputation of it is already in my mind and even though there is a problem in my transaction I would still rely on them. (FG-A, R7)*

*Satisfied customers are our assets. (ME, Commercial Manager, M&S)*

*...this sort of things given by the customer is brand reputation. And they feel strong about when they use contactless it would give them more confidence so they would come back more and more, so it helps our brand equity! (JA, Marketing Manager, Coffee Republic)*

The statements above directly or indirectly indicate evidence of the mediation effect of perceived reputation on the relationship between transaction-specific satisfaction and transaction-specific brand equity. These relationships are already validated in Chapters 3 and 5 of this study. The relationship between transaction-specific satisfaction and perceived reputation can be supported by studies conducted by several researchers (Anderson and Sullivan, 1993; Balmer and Chen, 2017; Bontis et al., 2017; Davies et al., 2002; Nguyen and Leblanc, 2001; Walsh et al., 2017; Wang et al., 2003). Their studies indicate a clear positive relationship between the two constructs.

On the other hand, many studies (Almeida and Coelho, 2017; Carmeli and Tishler, 2004; Caruana and Ewing, 2010; Fombrun and Van Riel, 1997; Isberg and Pitta, 2013; Lai et al., 2010; Mariutti and de Moura Engracia, 2019; Melo and Garrido-Morgado, 2012; Rindova et al., 2005; Shahani et al., 2019; So and King, 2010; Weiss et al., 1999; Yoo and Donthu, 2001) also show a positive relationship between perceived reputation and transaction-specific brand equity. Moreover, a direct positive relationship between transaction-specific satisfaction and transaction-specific brand equity was evident in the literature (Anderson, 1993; Anderson and Sullivan, 1993; Biedenbach et al.; 2015;

Bontis et al., 2017; Ha et al., 2010; Lusch and Vargo, 2006; Pappu and Quester, 2006; York et al., 2009).

Chaudhuri (2002) indicated that a brand that is superior due to it giving consumers unique value gains a better perceived reputation over its competitors, resulting in better brand results such as brand equality (transaction-specific brand equity in this case). From the point of view of signage theory, people use their experience and knowledge to perceive a certain retailer's reputation as a signal (Câble and Turban, 2003; Wang 2012), and customer satisfaction is one of those attributes that both customers and their stakeholders focus on and that serves as a signal.

Perceived reputation is one of the main resources to provide enduring competitive advantages for any retail environment, as it is difficult to produce or copy (Branco and Rodrigues, 2006). Reputational assets, such as intangible resources, can lead to the good attitude of consumers towards a company (Galbreath 2005). Therefore, perceived reputation plays a critical mediating function between consumer pleasure and a retailer's brand equity. Hur and Woo (2014), Jones (2008), and Lai et al. (2010) argued that the value of the brand is established the retailer having a reputation for brand equities (transaction-specific brand equity for this study). This can therefore be hypothesized-

*Hypotheses 5, 7 and 8: The relationship between transaction-specific satisfaction and transaction-specific brand equity is mediated by perceived reputation.*

#### 5.3.6.2 The Mediation Effect of Brand Personality on Transaction-specific Associations and Transaction-specific Brand Equity

In addition to the mediation effect discussed in the previous section, a second mediator was also found while conducting the qualitative study. Brand personality was found to play the role of a mediator between the relationship of transaction-specific associations and transaction-specific brand equity. This mediation effect will be discussed in this section.

Brand personality is a crucial component of a consumers' views on a product and so can build brand equity (Kim et al., 2010). Understanding brand personality is vital in order to create and build meaningful interactions of consumer brands, as customers tend to choose companies that are congruent with their own images and personalities (Sung and Tinkham, 2005). A properly established brand personality can boost the value of brand equity (Keller, 1993) by building on a range of unique and favourable brand pictures (Shank and Langmeyer 1994).

In the previous sections, the relationships between transaction-specific associations and brand personality (H6), transaction-specific associations and transaction-specific brand equity (H11), and brand personality and transaction-specific brand equity (H12) have been discussed in the light of the qualitative findings. In the revised framework, some of these constructs were moved to a different position compared to in the initial framework posed in Chapter 3 and hence, new relationships and hypotheses can be seen in the revised model between the above-mentioned constructs. While analysing the new relationships between these constructs, the mediation effect of brand personality was discovered during the qualitative study. Some of the statements that led to this mediation discovery are stated below.

*So, after undergoing an experience paying with contactless, they might generate certain personality factors from whatever is associated in their mind about the brand or the technology if they do at all. However, if asked, anyone could personalise and associate a certain brand or technology in your case. But for that you need to have experienced it, tasted it, and felt it. Only then can you associate it with a person, and when that happens, it's good for our brand value. (ME, Commercial Manager, M&S)*

*Through experience, we create an image of the entire experience including every element and every detail. Some of the associations we develop in our minds lead is to personalise the brand. This is surely a beneficial factor for our company. (SH, Brand Manager, SSP)*

*When you experience something, you develop some perceptions in your mind. Only after you have made a contactless payment can you imagine it as a person and say how the person is. You need to have used it first for that and have that kind of cues in your memory. A pile of such customers having such cues makes us gain loyal customers, which we thrive on. (SB, Station Supervisor, TfL)*

*Whatever it is, having positive associations about our brand and also having positive brand personality, which is also one kind of association according to my sense, it adds value to our brand for sure! (ME, Commercial Manager, M&S)*

*Anything positive will add to brand equity. But for that, they need to have positive service and positive things in their mind. Positive brand personality will definitely have a positive impact on brand equity. (SB, Station Supervisor, TfL)*

*If you go somewhere as a young person, go somewhere where every single thing is psychology-oriented, where you will see the modern touch, where you will see the classy thing, and you will not go somewhere where they will not think of any card payment and depend only on cash, and there is no till system. So those who are confident in those positive things, that helps brand equity! (JA, Marketing Manager, Coffee Republic)*

*As I get these associations from my friends and family, so if they're relying on the brand, then it would have more impact on me. Based on their cues, I will personalise the brand, and if more people have positive cues, it is good for them. (FG-A, Academics)*

*I guess I just said that. So, the way positive personality perceptions would add value to our company, the same way other positive perceptions which you can say as associations can increase the brand value, too. The rule and the reason are the same. (ME, Commercial Manager, M&S)*

In addition to the above statements, the participants associated some human characteristics with a brand, which is evidently going to have a direct impact on brand equity, thus clearly demonstrating the mediating effect of brand personality. During the qualitative study, the participants suggested various such brand personalities, as was evident in the literature, that have an impact on brand equity, such as 'trustworthy' (Alhaddad, 2014; Anselmsson and Tunca, 2017; Delgado and Munuera, 2005; Ebrahim, 2020; Emari and Mogaddam, 2012; Jevons and Gabbott, 2000; Khadim et al., 2018; Loureiro, 2013), and 'loyal' (Foroudi et al., 2018; Lesmana et al., 2020; Shabbir et al., 2017). Other associations like 'quick/fast', 'convenient', 'modern', and 'sophisticated' are related to various other determinants of brand equity, i.e., 'performance' which, in turn, increases brand equity (Anselmsson et al., 2017; Chaudhuri, 2002; Ekinici, 2018; Keller and Brexendorf, 2017; Reid, 2002; Wong and Merrilees, 2007).

Liao et al. (2017) studied the mediating role of brand personality on cognitive and experiential factors (such as brand associations) and brand equity. In Section 5.3.4.2, the relationship between transaction-specific associations and brand equity has been validated by the literature (Aaker, 1996; Ahmad and Thyagaraj, 2015; Kim et al., 2010; Patra and Mahapatra, 2019; Phau and Lau, 2000) and in light of the

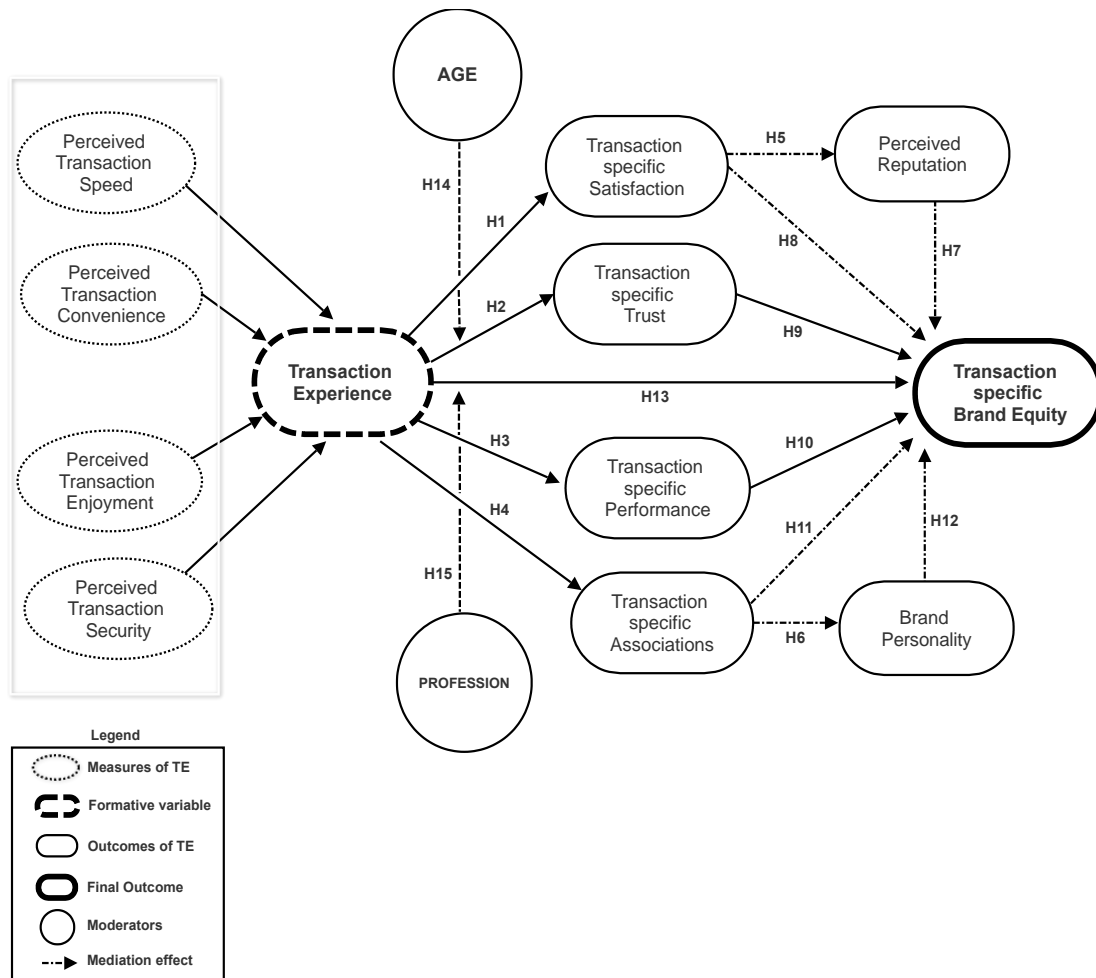
findings of the qualitative study, in Section 5.2.3.5, the relationship between transaction-specific associations and transaction-specific brand equity was discussed (Aaker, 1992; Bridges et al., 2000; Broniarczyk and Gershoff, 2003; Chung et al., 2013, Keller, 2003; Norazah, 2013), and lastly, Section 5.2.3.4 showed the relationship between brand personality and transaction-specific brand equity (Ahmad and Thyagaraj, 2015; Freling and Forbes, 2005a, 2005b; Giroux et al., 2017; Keller, 2016; Keller and Brexendorf, 2017; Luffarelli et al., 2018; Marquardt et al., 2017; Su and Tong, 2015).

After conducting the qualitative study and taking into account the findings from the literature and responses by individuals, it was revealed that the transaction-specific brand associations are responsible for generalising the brand personality, which in turn, leads to increased transaction-specific brand equity. Hence it can be hypothesized as follows.

*Hypotheses 6, 11 and 12: The relationship between transaction-specific associations and transaction-specific brand equity is mediated by brand personality.*

The first section of the investigation offered very crucial, extensive, and useful information about the studied phenomenon. Following the qualitative exploratory investigation, the second study began to take shape. The main finding of this study was that the following research issues were better understood: RQ1 - What is the aftermath of a positive transaction experience? And RQ2 - How does transaction experience affect transaction-specific brand equity? The literature evaluation had led to the formulation of the conceptual framework for research in the quantitative stage and the hypotheses to be considered. The result of the literature evaluation supported by the qualitative investigation is thus the subsequent research framework. However, during the qualitative study, several new constructs were discovered, which led not only to the addition and deletion of certain constructs but also to the revision of several relationships and hypotheses and the inclusion of several moderators and mediators. In discovering these new relationships, the researcher returned to the literature and found strong and positive evidence that supported the qualitative findings. In light of all the discussion above, leading to some new changes and revisions made to the previously designed conceptual framework, a revised conceptual model was constructed. Figure 5.2 depicts the new revised conceptual model after considering the qualitative study.

FIGURE 5.2: THE REVISED CONCEPTUAL FRAMEWORK



Source: Researcher

## 5.4 SUMMARY

The qualitative study was undertaken by analysing and outlining the results of all 9 in-depth interviews and the 4 focus groups. This chapter discussed the qualitative study that sought to address the research aim (to develop a comprehensive understanding of the concept, transaction experience, the transaction-specific outcomes from transaction experience, and their influence on transaction-specific brand equity) and answer the research questions. First, the data analysis and results from the interviews and focus groups were explained. After that, the results were structured around the main themes, which were identified from the related literature. A framework model of the implementation and determinants of transaction experience was developed on the basis of both the literature reviews and the findings of the qualitative study. Finally, some possible revisions to the model were suggested.

After the quantitative study, the initial conceptual model presented in chapter 3 was revised and at the end of this chapter a revised model was presented. In the revised model, there were some additions

and deletions of constructs along with a few of the hypotheses and relationships being revised and with the inclusion of a couple of moderators and mediators added to the model, as presented in Table 5.1. Thus, all these new hypotheses along with the moderators and mediators (see Table 5.1) will be tested during the next study (quantitative study) to find the reliability and validity of the new and final conceptual model.

**Table 5.1: List of Research Hypotheses Post Qualitative Study**

Research Hypothesis	
<b>RQ.1) What is the aftermath of a positive transaction experience?</b>	
H1	In a retail facility, the speedier, more convenient, enjoyable, and secure a transaction experience is, the higher the transaction-specific satisfaction is for the retailer.
H2	In a retail facility, the speedier, more convenient, enjoyable and secure a transaction experience is, the higher the transaction-specific trust is for the retailer.
H3	In a retail facility, the speedier, more convenient, enjoyable and secure a transaction experience is, the higher the transaction-specific performance is for the retailer.
H4	In a retail facility, the speedier, more convenient, enjoyable and secure a transaction experience is, the higher the transaction-specific associations is for the retailer.
H5	In a retail facility, the higher the customer's transaction-specific satisfaction is, the higher the customers' perceived reputation is for the retailer.
H6	In a retail facility, the higher the transaction-specific associations are, the higher the chance of customers perceiving brand personalities is in favour of the retailer.
<b>RQ.2) How does transaction experience affect transaction-specific brand equity?</b>	
H7	In a retail facility, the higher the reputation perceived by customers is, the higher the transaction-specific brand equity is for that retailer.
H8	In a retail facility, the higher the transaction-specific satisfaction of the customers is, the higher the transaction-specific brand equity is for that retailer.
H9	In a retail facility, the higher the transaction-specific trust of the customers is, the higher the transaction-specific brand equity is for that retailer.
H10	In a retail facility, the higher the transaction-specific brand performance offered to customers is, the higher the transaction-specific brand equity is for that retailer.
H11	In a retail facility, the higher the transaction-specific associations perceived by customers is, the higher the transaction-specific brand equity is for that retailer.
H12	In a retail facility, the higher the transaction-specific brand personalities perceived by customers is, the higher the transaction-specific brand equity is for that retailer.
H13	In a retail facility, the speedier, more convenient, enjoyable, and secure a transaction experience is, the higher the transaction-specific brand equity is for that retailer.
H14	In a retail facility, the transaction-specific trust during transaction experience will be higher and much stronger among younger customers compared to elderly ones.
H15	In a retail facility, the impact of transaction experience on transaction-specific brand equity will differ and will highly depend on the profession of the individual customer.

## Chapter 6: QUANTITATIVE ANALYSIS

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### 6.1 INTRODUCTION

This chapter sets out to analyse the results of the quantitative study in light of the research objectives and to the empirical analysis underpinning the study. It represents the research findings from the main study outlined in the previous chapters. It is divided into four sub-sections. Section 6.1 starts with an introduction. Section 6.2 presents the steps of preparing, editing, coding and screening the data. Next, section 6.3 explains the normality, linearity, multi-collinearity, and outliers of the collected data. Then, section 6.4 illustrates non-response bias, section 6.5 explains how the resulting solutions were then re-assessed using confirmatory factor analysis, while section 6.6 discusses structural equation modelling (SEM), which was used to test the hypothesised associations between the research constructs as postulated in the conceptual framework, and to assess the overall goodness-of-fit between the proposed conceptual model and the collected dataset. Finally, a summary of the chapter is presented in section 6.7.

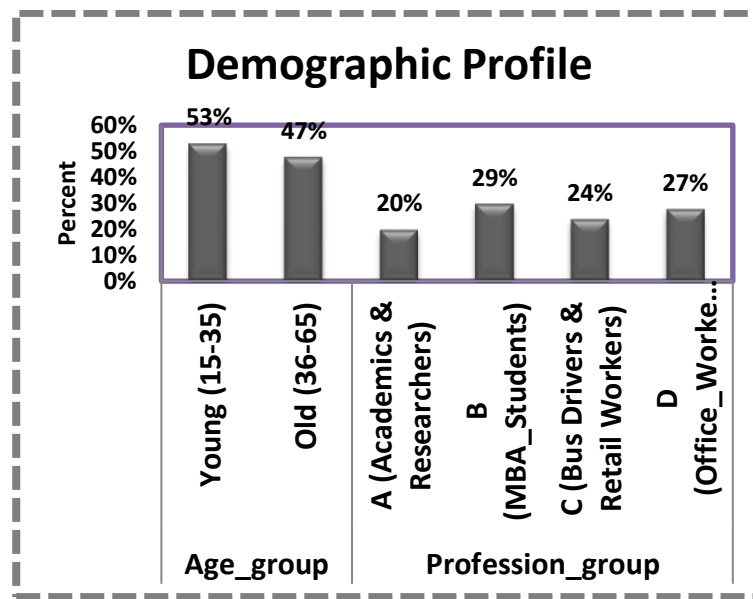
### 6.2 MAIN SURVEY

Most studies in marketing and social science studies are based on survey questionnaires (Kluemper, 2021; Sekaran, 2003). This study also used a survey questionnaire for the purpose of data collection. The main survey was conducted to obtain data for further scale purification and hypothesis testing. The data were collected in London, and the samples are representative of the main population. The population represents all the residents of United Kingdom who are aged over 18 and have the knowledge of contactless technology. The participants with previous experience or knowledge of contactless technology were only chosen to reflect upon the conceptual model. The knowledge of contactless technology was required to answer most of the survey questions, for example perceived speed, perceived convenience, transaction-specific trust etc.

The population for this study was consumers living in London, England, which was chosen as it is the second-largest global financial centre (CityLab, 2015), the second global city (CityLab, 2015), the second most multicultural city (TheCultureTrip, 2016). In total, 400 complete survey questionnaires were finalised as a basis for quantitative data analysis. The questionnaire asked respondents about characteristics such as age, gender, and profession. The profile of the respondents is summarised in Table 6.1. All the respondents had knowledge about contactless technology and had used contactless payment at least several times as a part of their transaction experience.



FIGURE 6.1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS



Source: Survey Questionnaire

Figure 6.1 presents the summary statistics of the two demographic variables (age range and professional group) which were used as moderators in the analysis. From the figure, 53% of respondents are young (aged 15-35) while 47% of the respondents were considered old (36-65 years). As far as the professional group is concerned, MBA students represented 29% of the sample, office workers were the second largest group with 27% of the sample, bus drivers and retail workers represented 24%, while 20% of the sample was made up of academics and researchers.

### 6.2.1 Data Preparation

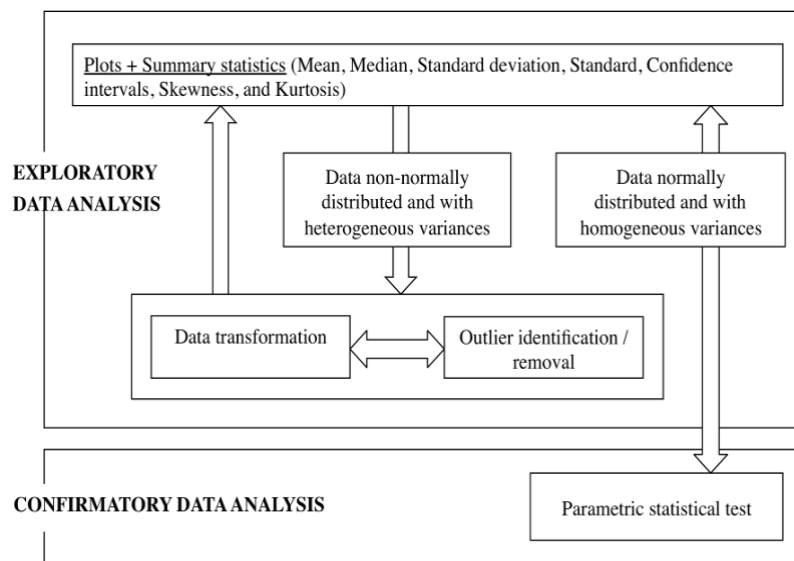
According to some of the previous researchers (Easterby-Smith et al., 2021; Malhotra, 2010; Tabachnick and Fidell, 2007; Shah and Murthi, 2021), it is necessary to code and edit the data that has been gathered before starting any sort of analysis or interpretation. Coding is the process of assigning numerals or other symbols to the categories (Easterby-Smith et al., 2021). In addition, coding acts as a method to label the data, which further helps with the data analysis, data interpretation, and report writing (Shah and Murthi, 2021). In this study, numerical codes were assigned to each of the constructs and their items as was done by previous researchers (Easterby-Smith et al., 2021; Malhotra, 2010; Tabachnick and Fidell, 2007; Shah and Murthi, 2021). A few of these codes were assigned to nominal data, while others were assigned to ordinal and interval data. Once the data coding was done, data editing was undertaken to ensure that there were no omissions. Data editing, in this study, certified that the data coding process was achieved, and any error was modified appropriately.

### 6.2.2 Data Screening

After data coding and editing, a pre-analysis data screening was performed. According to some researchers (Easterby-Smith et al., 2021; Konietschke et al., 2021; Malhotra, 1999; Suriani and Rushami, 2021; Suriani and Rushami, 2021; Tabachnick and Fidell, 2007), data screening is necessary for accurate data analysis and should be performed prior to the multivariate analysis to ensure that the main analysis will be credible and will result in valid outcomes (Suriani and Rushami, 2021; Tabachnick and Fidell, 2007).

Tabachnick and Fidell (2007) suggested four major procedures should be followed before the multivariate analysis is carried out, as shown in Figure 6.2. These four procedures are as follows: (i) the dataset should be searched for missing values and poor-quality responses, (ii) the descriptive statistics for all the variables should be calculated, (iii) the normality of the data distribution of the variables should be studied, and (iv) outliers should be notified at the univariate and multivariate levels (Foroudi, 2013). All these tests were conducted in this study using SPSS 26 and Minitab 19 and with the help of Microsoft Excel 2010. The results from each of the tests are given below.

Figure 6.2: Suggested routine for parametric data analysis



Source: Tabachnick and Fidell (2007) and Foroudi (2013, p. 196)

### 6.2.3 Missing Data Analysis

The data collected from the main survey were first examined for missing data. It is important to identify missing data during the early stages to reduce potential bias (Hair et al., 2006). Hair et al. (2006) explained two ways of evaluating missing data. “The first involves ignorable missing data, i.e., the

missing data process operating at random, which can be part of the research, while the second type of missing data cannot be ignored for many reasons” (Foroudi, 2013, p. 196). Hair et al. (2006) further categorized this type into two classes, namely, ‘known’ and ‘unknown’ processes. Malhotra (2010, pp. 461-462) used the term ‘item non-response bias’.

The ‘known’ missing data process occurs when the measurement equipment fails, subjects do not complete all the questions, or errors occur during data entry that create invalid codes (Foroudi, 2013, p. 196). In these cases, the researcher has less control over the missing data process, but some solutions can be applied if the missing data are random (Foroudi, 2013, p. 196). The ‘unknown’ missing data process is less easily identified. It occurs when respondents refuse to answer, hesitate, or have no opinion on certain questions. These problems can easily be avoided by minimizing them in the research design and data collection stages. However, the missing data issue in this scenario can only be solved when the missing data has occurred in a random pattern.

Cook (2021), Hair et al. (2006), and Tabachnick and Fidell (2007) explained two ways of evaluating missing data. The first, known as Missing Completely at Random (MCAR), involves accessing data that are missing at random or ‘ignorable’. The second, known as Missing Not at Random (MNAR), involves accessing missing data that is known or ‘not ignorable’. The first way to access missing data generates less serious problems and can be imputed more easily than the second way, which can affect the generalizability of the data (Cook, 2021; Tabachnick and Fidell, 2007).

Malhotra (2010) gave two options for the treatment of missing responses, which, according to him, can be used when 10 per cent of responses are missing. His first option is to substitute the missing data with a mean value. His second option is to impute missing data with a suitable response based on the available data. This can be done statistically by determining the relationship of the variable in question to other variables, based on the available data (Malhotra, 2010, pp. 461-462). For example, product usage could be related to household size for respondents who have provided data on both variables (Malhotra, 2010, pp. 461-462). The missing product usage response for a respondent could then be calculated using that respondent’s household size (Malhotra, 2010).

According to Malhotra (2010), both methods have their own disadvantages. For example, the first method can be questionable if the respondent has given high ratings but has been marked by the average rating. On the other hand, the second method can result in serious biasness and might need considerable effort. In this study, the missing values were controlled by making all survey questions

‘mandatory’ in the survey form for submission to be successful. This prevented respondents from submitting incomplete responses. For the hard copy questionnaire, the researcher checked visually to make sure all questions had been answered by the respondents.

Based on the discussion about the seriousness of the missing data, this study applied SPSS missing value analysis method with the expectation-maximisation (EM) technique. The results show that there was no missing data found at any item or construct level. Hence, there was no need to examine the patterns or any remedy to deal with the missing data problem. This would seem to indicate that the questionnaire was generally well understood and was applicable to the subsidiary’s circumstances. The next section presents an assessment of the normality, outliers, linearity, and multi-collinearity.

### **6.3 ASSESSMENT OF NORMALITY, OUTLIERS, LINEARITY AND MULTI-COLLINEARITY**

After coding the data, a normality test was conducted to ensure that the data have not violated the normality assumption. Normality is a primary assumption in multivariate analysis, mainly in structural equation modelling (Crawford and Jean, 2021; Zhang et al., 2021). Multivariate normality of data is required for related significance tests. In this study, normality of variables involved graphical (histogram and normal probability plot) and statistical representations.

The normal probability plot is a graphical technique for assessing whether or not a dataset is approximately normally distributed (Tabachnick and Fidell, 2007; Wulandari et al., 2021). Based on the graphical assessment, several variables showed a moderate to high degree departure from normality, and this was taken into account in the data analysis. Normal probability plots are graphs for which the scales are distributed as a straight line (Cox, 2021). The data can be plotted on the normal probability plots either as grouped data, such as from a histogram plot, or as individual data points (Tabachnick and Fidell, 2007; Wulandari et al., 2021).

Some variables do not cluster around a straight line; the correlation coefficient  $r$  is close to zero, even if the variables have a strong nonlinear association (Cox, 2021; Tabachnick and Fidell, 2007; Wulandari et al., 2021). For this reason, the evaluation of these probability plots meant that there was a deviation from normality for some variables. However, no modification (for instance, the transformation of the data) has been done. According to Hair et al. (1998), visually assessing normal probability plots is more suitable for larger sample sizes. An assessment of normal probability plots

recommends that there are no major deviations from normality for this data. According to several authors (Cox, 2021; Hair et al., 2006; Tabachnick and Fidell, 2007), when the variation from the normal distribution is large, the results in statistical tests are unacceptable.

### **6.3.1 Assessment of Normality**

This is one of the primary criteria in multivariate analysis, especially in covariance-based structural equation modelling (Cox, 2021): “It is used in calculating the sample size and serves as the basis for classical statistical inference” (Malhotra, 2010, pp. 426-427). It is bell-shaped and symmetrical in appearance and measures the central tendency (mean, median, and mode), which are similar, and its associated random variable has an infinite range (Malhotra, 2010, pp. 426-427).

In this study, the normality of variables was considered by graphical and statistical methods (Cox, 2021; Foroudi, 2013, p. 197). The normal probability plot is a graphical technique for assessing whether a dataset is normally distributed (Cook, 2021; Foroudi, 2013, Tabachnick and Fidell, 2007; Yamani et al., 2021). It can be plotted on the normal probability plot either as grouped data, like histogram plot, or as individual data points, like a straight line (Cook, 2021, Cox, 2021; Tabachnick and Fidell, 2007; Yamani et al., 2021). Normality for this study was assessed using normal P=P plots along with the Kolmogorov Smirnov test. The P-P plot is a graphical tool that is used to determine how well a given data set fits a specific probability distribution that is being testing, in this case, the normal distribution. It compares the empirical cumulative distribution functions of a given dataset with those of the assumed real cumulative probability distribution function.

In addition to this, a non-parametric Kolmogorov-Smirnov and Shapiro-Wilk (K-S) test was also employed. K-S is another way of looking at the problem to inspect if the distribution as a whole deviate from a comparable normal distribution (Fied, 2009; Foroudi, 2013; Suriani and Rushami, 2021). It reports whether the two distributions are the same or different (Malhotra, 2010, p. 511). Moreover, it takes into account any differences in the distributions, including median, dispersion, and skewness (Hendri and Defit, 2021; Malhotra, 2010, p. 511).

If the test is significant ( $P < 0.05$ ), then the distribution in question is significantly different from a normal distribution (Foroudi, 2013; Hendri and Defit, 2021; Suriani and Rushami, 2021). The results for normality for this study showed that the study did not achieve normality. All the associated p values were lower than 0.05, which means that the variables did not follow a normal distribution. For this reason, for this particular study, PLS SEM was preferred because it does not make assumptions about

the distribution of the data (Hair Jr et al., 2021). However, before running the SEM analysis, the variables were standardized in order to minimize the deviations and used for the analysis. The probability plots for the lower order constructs, mediating variable, and all other dependent variables are presented in Figures 6.3, 6.4, and 6.5 respectively.

Figure 6.3: Probability Plots for Lower Order Constructs of TE (PTE, PTC, PTX & PTS)

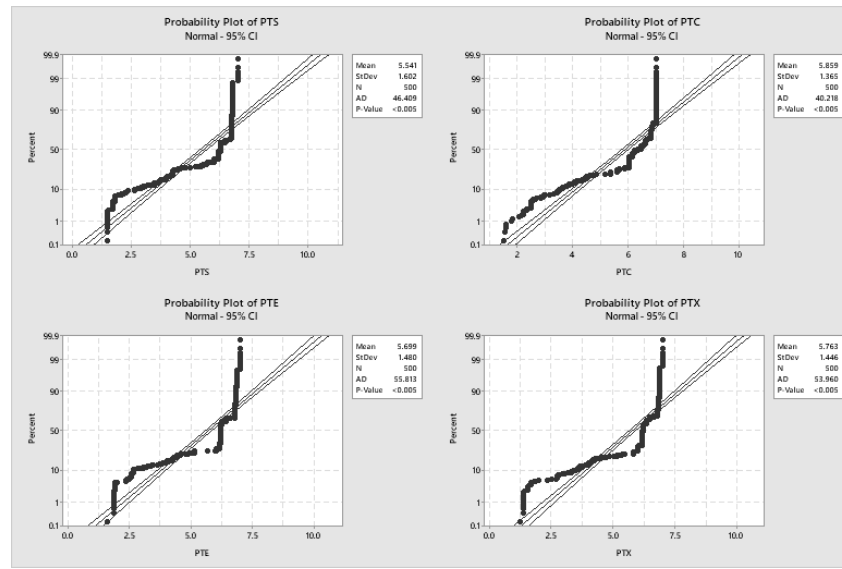


Figure 6.4: Probability Plots for Mediating Variables (TE, TSS, TST and TSP)

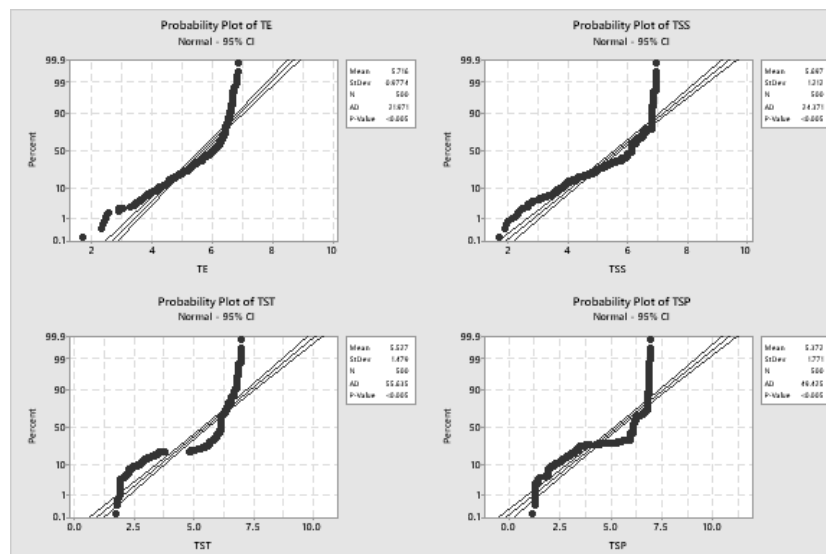
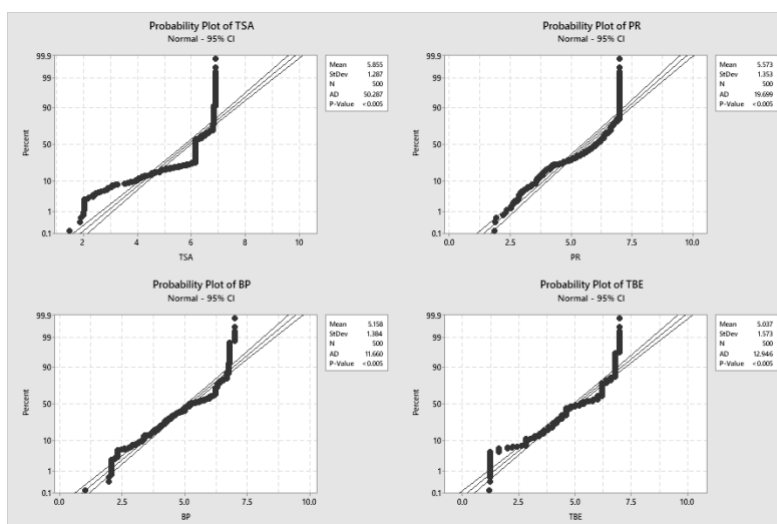


Figure 6.5: Probability Plots for Dependent Variables (TSA, PR, BP and TBE)



The other method used to examine normality is Jarque-Bera, which uses skewness and kurtosis (Siraj-Ud-Doula, 2021). Skewness is the tendency of the deviations from the mean to be larger in one direction than in the other (Khatun, 2021; Malhotra, 2010), that is, the tendency for one tail of the distribution is known to be heavier than the other (Malhotra, 2010). A skewed variable is a variable whose mean is not in the centre of the distribution (Khatun, 2021; Tabachnick and Fidell, 2007). A negative value of less than -1 (i.e., -1.5 or -2), and a positive value of more than 1 (i.e., 1.5 or 2), means that there is skewed data. Anything in between -1 and 1 means the value is acceptable.

Another measure to examine skewness is to multiply the standard error of the skewness by 3 (Siraj-Ud-Doula, 2021). If the value is less than three times the standard error, then it can be said that there is an issue with the skewness and the normality assumptions. Based on the results found from the constructs (as shown in Table 6.1), it could be said that all of the constructs and variables were within the satisfactory criteria for the criteria of skewness while others exhibited negative or positive skewness.

Table 6.1: Skewness and Kurtosis Constructs Value

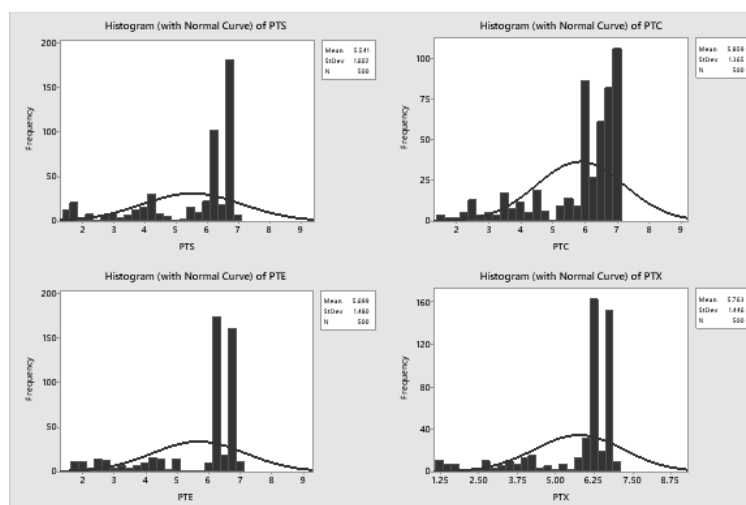
Variable	Skewness	Kurtosis
PTS	-1.27	0.35
PTC	-1.45	1.1
PTE	-1.46	0.8
PTX	-1.73	2.05
TE	-1.3	1.35

TSS	-1.18	0.58
TST	-1.4	0.49
TSP	-1.05	-0.45
TSA	-1.7	1.96
PR	-0.76	-0.62
BP	-0.56	-0.69
TBE	-0.76	-0.16

Source: Survey data analysis

Next, kurtosis was employed. This is a measure of the relative peakiness or flatness of the curve defined by the frequency distribution (Buscemi et al., 2021; Henriques et al., 2021; Malhotra, 2010; Tabachnick and Fidell, 2007). The kurtosis of a normal distribution is zero (Henriques et al., 2021). If the kurtosis is positive, then the distribution is more peaked than a normal distribution, while if the kurtosis is negative, then the distribution is flatter than a normal distribution (Henriques et al., 2021; Malhotra, 2010; Zhang et al., 2020). According to the results of skewness and kurtosis (Figure 6.1), all of constructs and variables lies within the satisfactory range. The values for asymmetry and kurtosis between -2 and +2 are considered acceptable in order to prove normal univariate distribution (George and Mallery, 2010). Hair et al. (2010) and Bryne (2010) argued that data is considered to be normal if skewness is between -2 to +2 and kurtosis is between -7 to +7. The application of kurtosis shows a normal distribution of the dataset. The following figures (Figures 6.6, 6.7, and 6.8) present the distribution of the constructs.

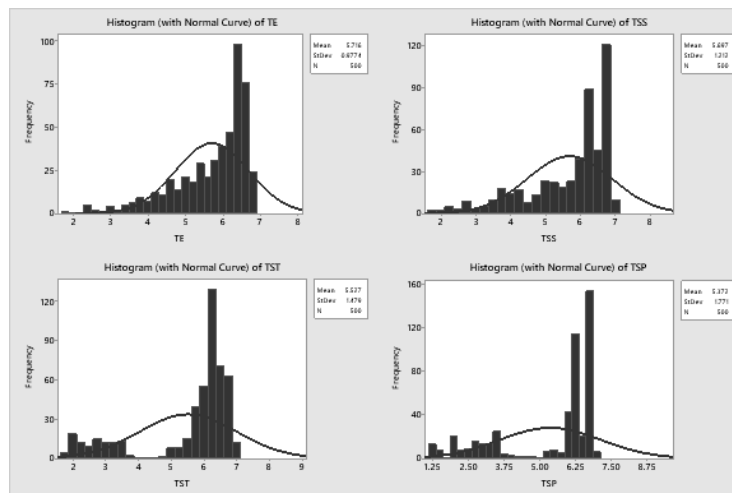
Figure 6.6: Histogram with Normal Curve for Lower Order Constructs Measuring TE



Source: Analysis of survey data

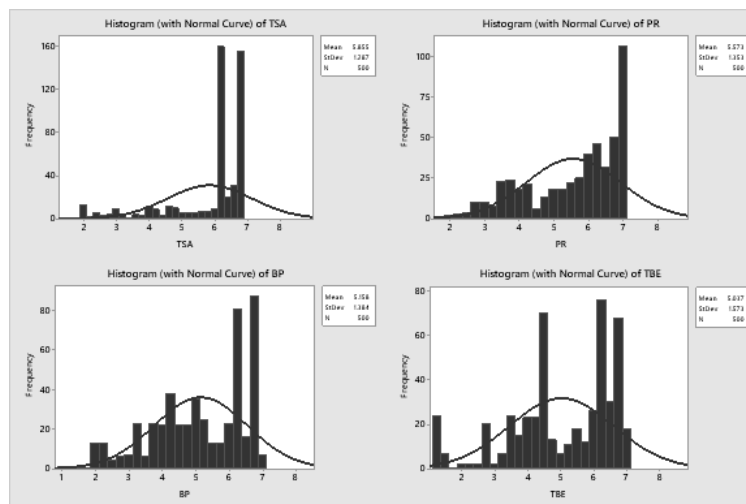


Figure 6.7: Histogram with Normal Curve for TE, TSS, TST, and TSP



Source: Analysis of survey data

Figure 6.8: Histogram with Normal Curve for TSA, PR, BP and TBE



Source: Analysis of survey data

### 6.3.2 Testing for Outliers

An outlier is an observation that deviates from other observations sufficiently and significantly to arouse suspicion, and it can be generated by different mechanisms (Domański, 2020; Hawkins, 1980; Foroudi, 2013; Silva et al., 2021). It recognizes observations that are unnecessary representations of the population and hence, these are deducted from the analysis. According to statisticians (Domański, 2020; Silva et al., 2021; Tabachnick and Fidell, 2007), outliers should be run on a regular basis because they help in providing useful information about the data. In examining the construct, two possible types of outliers, namely, univariate and multivariate, were identified in the dataset (Hair et al., 2006;

John, 2021; Kafantaris et al., 2021; Malhotra, 2010). Univariate outliers are appropriate when there is a single measurement of each element in the sample (Hair et al., 2006).

Alternatively, there are several measurements of each element, but each element is analysed in isolation. On the other hand, multivariate outliers are suitable for analysing data when there are two or more measurements of each element and the variables are analysed simultaneously (Hair et al., 2006; Malhotra, 2010). Such outliers differ from previous outliers in that they shift the focus away from the levels and distributions of the phenomena, concentrating upon the relationships between these phenomena (Hair et al., 2006; John, 2021; Malhotra, 2010).

Table 6.2: Grubbs' Test for Outliners

Variable	N	Mean	StDev	Min	Max	G	P
PTS	500	5.5412	1.6023	1.45	7	2.55	1
PTC	500	5.8595	1.3647	1.49	7	3.2	0.648
PTE	500	5.6995	1.4803	1.58	7	2.78	1
PTX	500	5.7626	1.446	1.2	7	3.16	0.763
TE	500	5.7156	0.9774	1.72	6.9	4.09	0.019
TSS	500	5.6971	1.2123	1.7	7	3.3	0.46
TST	500	5.5266	1.479	1.73	7	2.57	1
TSP	500	5.3722	1.771	1.14	7	2.39	1
TSA	500	5.8549	1.2875	1.48	6.88	3.4	0.317
PR	500	5.5733	1.3526	1.84	7	2.76	1
BP	500	5.1578	1.3842	1	7	3	1
TBE	500	5.0368	1.5731	1.19	7	2.45	1

Source: Analysis of survey data

The Grubbs' test was used to test for outliers. The null hypothesis of the Grubb's test states that All data values come from the same normal population while the alternative hypothesis states that smallest or largest data value is an outlier. According to the test, only TE had a significant outlier. All other latent constructs were free from outliers as their p values were all higher than 0.05. The Grubbs' test, as displayed in Table 6.2, was used to test for outliers. The null hypothesis of the Grubb's test states that all data values come from the same normal population. On the other hand, an alternative hypothesis states that the smallest or largest data value is an outlier. According to the test, only TE had a significant outlier. All other latent constructs were free from outliers as their p values were all higher than 0.05.

To test for univariate outliers, the Mahalanobis d-squared was used. The results of the univariate test for outliers are presented in table below.

Table 6. 3: Mahalanobis d-squared

Observation number	Mahalanobis d-squared	p1	p2
164	119.487	.000	.000
469	119.487	.000	.000
13	99.726	.000	.000
318	99.726	.000	.000
133	95.507	.000	.000
438	95.507	.000	.000
203	91.700	.000	.000
279	89.920	.000	.000
59	88.047	.000	.000
364	88.047	.000	.000
290	84.342	.000	.000
11	79.273	.000	.000
316	79.273	.000	.000
293	78.790	.001	.000
201	76.199	.001	.000
26	75.354	.001	.000
331	75.354	.001	.000
37	74.793	.001	.000
342	74.793	.001	.000
148	74.566	.001	.000
453	74.566	.001	.000
182	74.386	.002	.000
487	74.386	.002	.000
75	73.603	.002	.000
380	73.603	.002	.000
109	73.330	.002	.000
414	73.330	.002	.000
248	73.073	.002	.000
139	72.643	.002	.000
444	72.643	.002	.000
263	69.657	.005	.000
197	68.752	.006	.000
87	65.871	.011	.000
392	65.871	.011	.000

<b>199</b>	65.582	.011	.000
<b>280</b>	65.005	.013	.000
<b>238</b>	64.674	.014	.000
<b>260</b>	64.463	.014	.000
<b>291</b>	63.888	.016	.000
<b>268</b>	63.552	.017	.000
<b>12</b>	63.250	.019	.000
<b>317</b>	63.250	.019	.000
<b>1</b>	62.625	.021	.000
<b>306</b>	62.625	.021	.000
<b>218</b>	62.431	.022	.000
<b>284</b>	62.409	.022	.000
<b>183</b>	62.332	.022	.000
<b>488</b>	62.332	.022	.000
<b>160</b>	62.261	.023	.000
<b>465</b>	62.261	.023	.000
<b>104</b>	62.244	.023	.000
<b>409</b>	62.244	.023	.000
<b>286</b>	61.997	.024	.000
<b>98</b>	61.819	.025	.000
<b>403</b>	61.819	.025	.000
<b>301</b>	61.780	.025	.000
<b>147</b>	61.404	.027	.000
<b>452</b>	61.404	.027	.000
<b>23</b>	61.365	.027	.000
<b>328</b>	61.365	.027	.000
<b>126</b>	61.135	.028	.000
<b>431</b>	61.135	.028	.000
<b>261</b>	60.111	.035	.000
<b>137</b>	59.870	.036	.000
<b>442</b>	59.870	.036	.000
<b>277</b>	59.817	.037	.000
<b>112</b>	59.375	.040	.000
<b>417</b>	59.375	.040	.000
<b>267</b>	59.143	.041	.000
<b>222</b>	58.602	.046	.000
<b>66</b>	58.336	.048	.000
<b>371</b>	58.336	.048	.000
<b>155</b>	57.621	.055	.000

460	57.621	.055	.000
270	57.536	.056	.000
215	56.973	.061	.000
22	56.876	.062	.000
327	56.876	.062	.000
43	56.688	.065	.000
348	56.688	.065	.000
134	56.199	.070	.000
439	56.199	.070	.000
35	56.058	.072	.000
340	56.058	.072	.000
5	55.938	.074	.000
310	55.938	.074	.000
237	55.686	.077	.000
153	54.836	.089	.000
458	54.836	.089	.000
177	54.765	.090	.000
482	54.765	.090	.000
303	54.743	.090	.000
79	54.701	.091	.000
384	54.701	.091	.000
121	54.424	.095	.000
426	54.424	.095	.000
27	54.387	.095	.000
332	54.387	.095	.000
6	54.143	.099	.000
311	54.143	.099	.000

Table 6.3 presents the Mahalanobis d-squared to detect unusual responses. Based on Mahalanobis d-squared results, an observation is unusual when either p1 or p2 is less than 0.05 (Collier, 2020). Reading from Table 6.3, 100 observations were identified as abnormal observations that had to be removed from the dataset. This reduced the sample size from 500 respondents to 400 respondents.

#### Outlier

Variable	Row	Outlier
TE	335	1.72

The outlier plots of the latent constructs are presented in Figures 6.9, 6.10, and 6.11 presented below-

Figure 6.9: Outlier Plots for Lower Order Constructs of TE (PTS, PTC, PTE, and PTX)

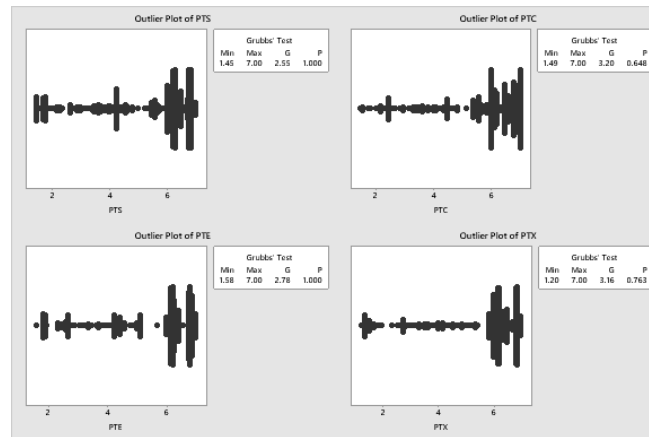


Figure 6.10: Outlier Plots for TSA, TSP, TSS, and TST

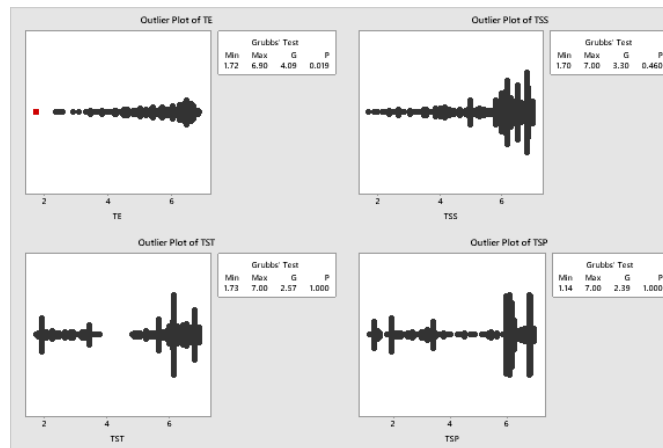
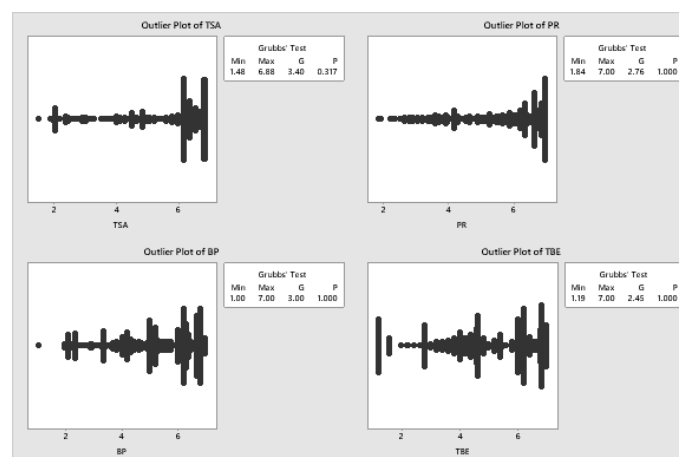


Figure 6.11: Outlier Plots for TSA, PR, BP, and TBE



The outliers were further analysed and assessed in a boxplot form. The assessment of outliers using box plots is presented below.

Figure 6.12: Boxplot for PTS, PTC, PTE, and PTX

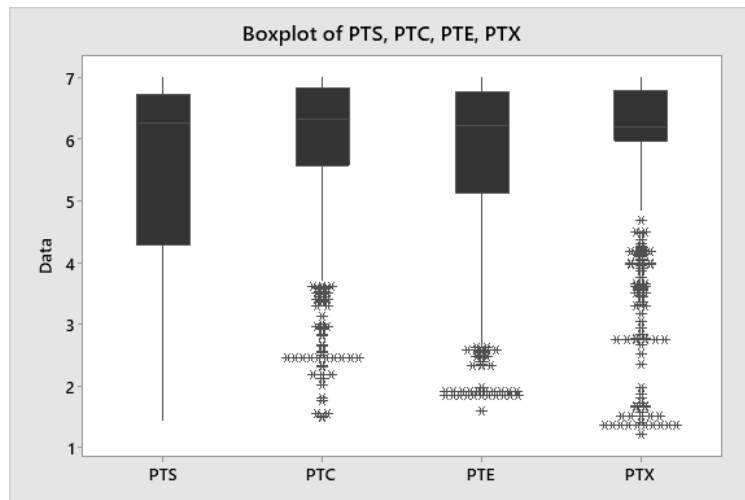


Figure 6.13: Boxplot for TE, TSS, TST, and TSP

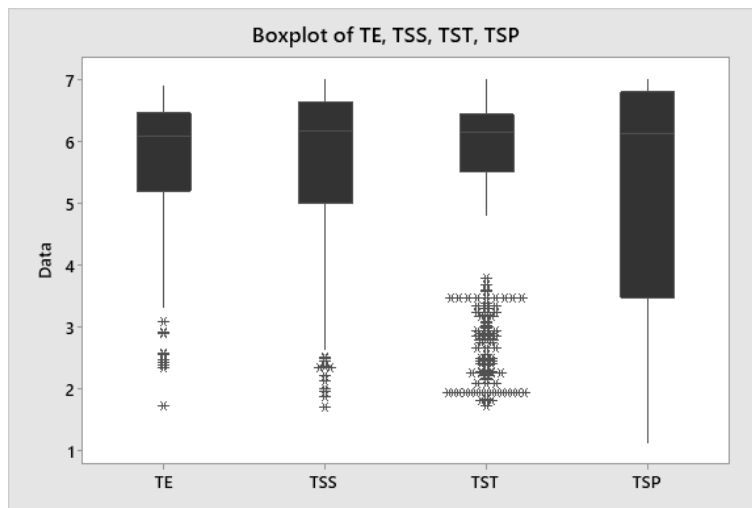
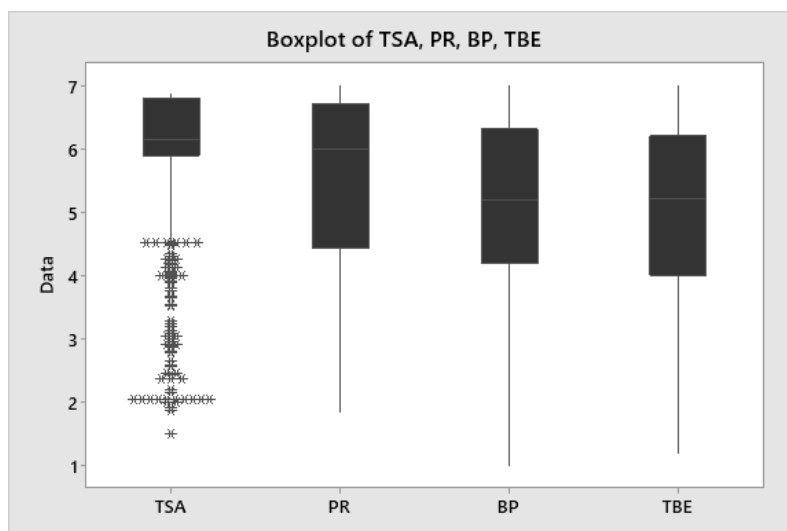


Figure 6.14: Boxplot for TSA, PR, BP, and TBE



### 6.3.3 Linearity and Multi-Collinearity

Linearity is the property of a mathematical relationship or function, which means that it can be graphically represented as a straight line (Alajili et al., 2021; Putra et al., 2021; Foroudi, 2013). It is an index that determines whether a linear or a straight-line relationship exists between two variables. It further indicates the degree to which the variation in one variable is related to the variation in another variable (Malhotra, 2010; Foroudi, 2013). Linearity among latent variables is hard to assess; however, linearity among pairs of measured variables can be easily assessed with the help of scatter plots (Alajili et al., 2021; Tabachnick and Fidell, 2007).

Table 6.4: Correlation Matrix for the Constructs

		Correlations							
		TE	TSS	TST	TSP	TSA	PR	BP	TBE
TE	Pearson Correlation	1							
	Sig. (2-tailed)								
TSS	Pearson Correlation	.269**	1						
	Sig. (2-tailed)	0.000							
TST	Pearson Correlation	.124**	.320**	1					
	Sig. (2-tailed)	0.005	0.000						
TSP	Pearson Correlation	.173**	.249**	.158**	1				
	Sig. (2-tailed)	0	0	0					
TSA	Pearson Correlation	.219**	.211**	.094*	.188**	1.000			



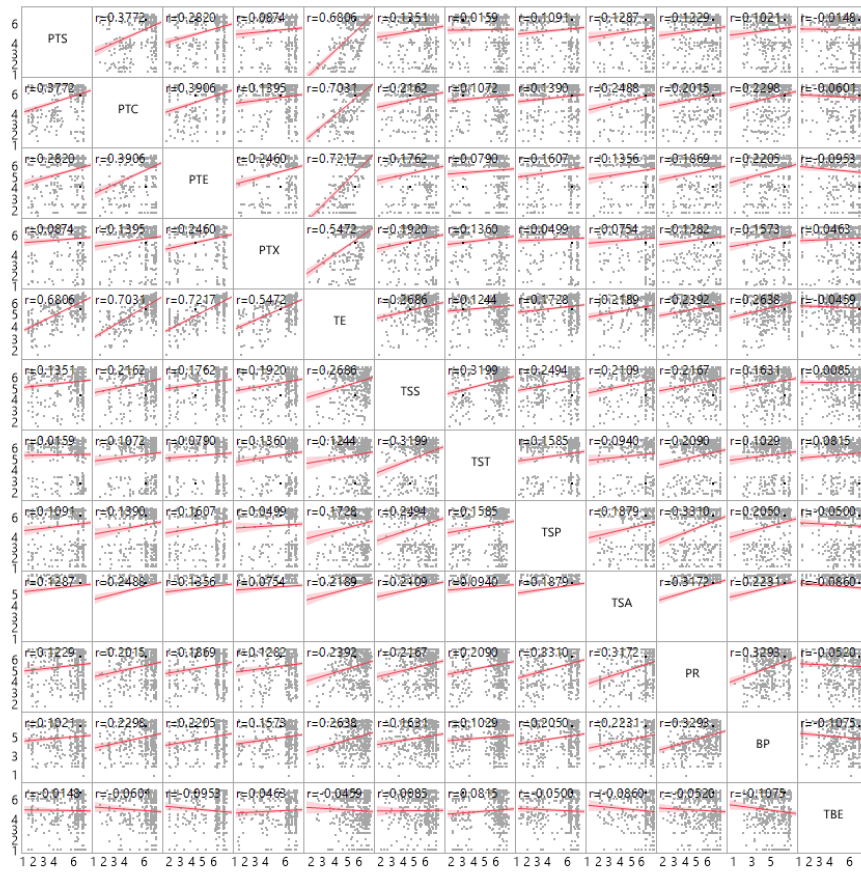
	Sig. (2-tailed)	0	0	0.036	0				
PR	Pearson Correlation	.239**	.217**	.209**	.331**	.317**	1.000		
	Sig. (2-tailed)	0	0	0	0	0			
BP	Pearson Correlation	.264**	.163**	.103*	.205**	.223**	.329**	1.000	
	Sig. (2-tailed)	0	0	0.021	0	0	0		
TBE	Pearson Correlation	-0.046	0.008	0.081	-0.05	-0.09	-0.052	-.108*	1
	Sig. (2-tailed)	0.305	0.850	0.069	0.264	0.055	0.246	0.016	
**. Correlation is significant at the 0.01 level (2-tailed).									
*. Correlation is significant at the 0.05 level (2-tailed).									

Source: Analysis of survey data

As it was originally proposed by Karl Pearson (1905), it is therefore known as Pearson's correlation coefficient or Pearson's *r*. This study applied Pearson's correlation at the 0.01 significance level (i.e., 2-tailed) to determine the linearity and multi-collinearity between the independent and dependent variables. Results showed that all variables were linear with each other (see Figure 6.15).

Next, the results from the bivariate correlation were computed to examine the multi-collinearity between the variables. According to previous researchers (Alajili et al., 2021; Hair et al., 2006; Putra et al., 2021; Foroudi, 2013), if the values between the constructs are 0.90 or above, it means they have a high level of multi-collinearity. Table 6.3 shows that none of the bivariate correlations were highly correlated (0.90 or above) to each other, suggesting that there was no multi-collinearity between the variables.

Figure 6.15: Scatter Plot Matrix FOR Constructs



Source: Analysis of survey data

Further, variance inflation factor (VIF) and tolerance effect (Hair et al., 2006) were also studied. A VIF below 5 (i.e., the tolerance above 0.2), suggests that there is no multi-collinearity present between the variables (Pallant, 2007). The results in this study, as shown in Table 6.4, showed that none of the constructs violated the assumption of multi-collinearity (Foroudi, 2013). All three assumptions were fulfilled. Therefore, there was no need to delete any of the variables at this stage. Hence, all the variables were retained for further examinations of collinearities.

Table 6.5: Assessment of Multicollinearity

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	5.692	0.549	10.369	0		

TE	-0.028	0.078	-0.017	-0.356	0.722	0.852	1.174
TSS	0.027	0.064	0.021	0.415	0.679	0.802	1.247
TST	0.106	0.051	0.1	2.105	0.036	0.875	1.143
TSP	-0.029	0.043	-0.033	-0.684	0.494	0.845	1.184
TSA	-0.081	0.059	-0.066	-1.369	0.171	0.854	1.171
PR	-0.013	0.06	-0.011	-0.218	0.828	0.75	1.333
BP	-0.104	0.055	-0.092	-1.888	0.06	0.84	1.191
a. Dependent Variable: TBE							

Source: Analysis of survey data

### 6.3.4 Homoscedasticity/ Homogeneity

Homoscedasticity is related to the assumption of normality, when the assumption of multivariate normality is met (Zin and Ibrahim, 2020; Foroudi, 2013; Tabachnick and Fidel, 2007). Homoscedasticity means that the variance around the regression line is the same for all values of the predictor variable (Zin and Ibrahim, 2020). In other words, variables are homoscedastic when the variability scores for one continuous variable are the same at all values of other continuous variables. The failure of homoscedasticity is caused by the non-normality of one of the variables or by the fact that one variable is connected to some transformation of the other (Hair et al., 2006).

In this study, Levene's test was used to assess whether the variances of metric variables were equal across the non-metric variables, i.e., age, gender, and profession (Pallant, 2007). Levene's test is a measure of homogeneity of variance and is significant at  $p \leq 0.05$  (Foroudi, 2013). In this study, Levene's test was found to be significant and not significant (based on the values of P being lower and higher), and similarly, variances were found to be different and not different, as shown in Table 6.5. For the variances where the Levene's test was significant, it could be interpreted whereas, the variances which were found to be insignificant, they could not be interpreted.

Table 6.6: Levene's Test for Equality of Variances

Items	F	Sig.
TE	74.479	0
TSS	0.055	0.814
TST	0.018	0.895
TSP	17.387	0
TSA	10.49	0.001

PR	0.014	0.906
BP	0.315	0.575
TBE	1.243	0.265

Source: Analysis of survey data

#### 6.4 NON-RESPONSE BIAS

Non-response bias refers to the situation when a respondent refuses to be involved in the research and shows unwillingness to participate in a survey (Brown et al., 2021). According to researchers (Brown, 2021; Churchill, 1979, Foroudi, 2013; Wan and McDonald, 2020), the problem of non-response bias is common in survey research, which occurs when respondents differ in meaningful ways from non-respondents. Convincing respondents that data will be used with the highest confidentiality and that anonymity will be maintained throughout the research can reduce the non-response rate to a minimum (Wan and McDonald, 2020).

To further examine for any potential non-response bias in in this study, a Mann-Whitney U-test was carried out. This is a statistical test for a variable measured on an ordinal scale, comparing the difference in the location of two populations based on observations from two independent samples (Kamis et al., 2020; Malhotra, 2010). To carry out this test, the first 250 observations were taken as early respondents, and the last 250 were taken as late respondents. As Table 6.6 shows, no significant value was shown in any of these variables, i.e., less than or equal to 0.05, which suggested that there was no major difference in the early and late respondents' replies (Dai et al., 2020; Kamis et al., 2020; Malhotra, 2010).

Table 6.7: Mann-Whitney U-test Observing Non-Response Bias

	PTC	PTE	PTX	PTS	TE	BP	PR	TSA	TBE	TSF	TSS	TST
Mann-Whitney U	29014	26346.5	29716.5	26692.5	24505.5	30395	30113.5	28086.5	30803	29563	24145	27197
Wilcoxon W	60389	57721.5	61091.5	58067.5	55880.5	61770	61488.5	59461.5	62178	60938	55520	58572
Z	-1.391	-3.042	-0.951	-2.829	-4.175	-0.53	-0.706	-1.986	0.277	1.045	4.401	-2.51
Asymp. Sig. (2-tailed)	0.164	<b>0.002</b>	0.342	<b>0.005</b>	<b>0</b>	0.596	0.48	<b>0.047</b>	0.782	0.296	<b>0</b>	0.012
<b>a. Grouping Variable: Response Bias</b>												

According to the analysis as shown in Table 6.6, response bias occurred in PTS, PTE, TE, TSS, and TSA. The next section explains the factor loadings and data analysis. After assessing for the validity and reliability of latent variables, the latent variable scores were computed using Smart PLS 3.3.5. Only items that were reliable were included in the computation of the latent variable scores. The data were coded using a 7-point Likert scale with 1 (strongly disagree) to 7 (strongly agree) making an average of 4. A mean of 4 depicts a neutral point where respondents neither agreed nor disagreed with the construct. Looking at Table 6.7, the smallest value for the mean is 5.036 (TBE), which indicates that, on average, respondents had a positive opinion about the constructs under study. The responses ranged between 1 and 7. Table 6.7 presents the latent variable descriptive statistics.

Table 6.7: Summary Statistics of Latent Variables

	Mean	Median	min	max	SD	kurtosis	Skewness	N
BP	5.158	5.5	1	6.493	0.935	-0.418	-0.647	400
PR	5.525	6	1	7	0.975	0.016	-0.999	400
TBE	5.038	5.5	1	6.729	1.434	-0.33	-0.751	400
TSA	5.841	6.167	1	7	0.831	2.206	-1.655	400
TSP	5.337	6	1	6.89	0.835	-0.132	-1.094	400
TSS	5.695	6	0.92	7	1.13	0.982	-1.241	400
TST	5.517	6	1	6.7	0.889	0.666	-1.318	400
TE	5.706	6	1.177	6.911	0.788	-0.293	0.394	400

Source: Analysis of survey data

The correlations of the latent constructs are presented in Table 6.8. These are calculated following the Pearson's Product Moment Correlations; the table displays the relationships that exist between the different latent constructs in the study. TE is positively and significantly related to BP ( $r=0.282$ ,  $p<0.01$ ), and there also exists a positive and significant relationship between TE and PR ( $r=0.246$ ,  $p<0.01$ ). TE and TSA are positively and significantly related ( $r=0.245$ ,  $p<0.01$ ), and there is no significant relationship between TE and TBE ( $r=-0.054$ ,  $p>0.05$ ). The relationship between TE and TSP is significant at 1% ( $r=0.169$ ,  $p<0.01$ ). Similarly, there exists a strong positive relationship between TE and TSS ( $r=0.275$ ,  $p<0.01$ ). The relationship between TST and TE is significant at 5%. TSP, TSS, TST, and TE are not significantly related to TBE. TSA and TBE are negatively and significantly related to each other ( $r=-0.086$ ,  $p<0.05$ ). At a 99% confidence interval, BP is positively and significantly related to PR ( $r=0.329$ ,  $p<0.01$ ), TSA ( $r=0.223$ ,  $p<0.01$ ), TSP ( $r=0.205$ ,  $p<0.01$ ), TSS ( $r=0.163$ ,  $p<0.01$ ), and TST ( $r=0.103$ ,  $p<0.05$ ).

Table 6.8: Latent Variable Correlations

Correlations									
	TE	TSS	TST	TSP	TSA	PR	BP	TBE	
TE	1								
TSS	.269**	1							
TST	.124**	.320**	1						
TSP	.173**	.249**	.158**	1					
TSA	.219**	.211**	.094*	.188**	1.000				
PR	.239**	.217**	.209**	.331**	.317**	.327**			
BP	.264**	.163**	.103*	.205**	.223**	.329**	1.000		
TBE	-0.046	0.008	0.081	-0.05	-0.086	-0.05	-.108*	1	
**. Correlation is significant at the 0.01 level (2-tailed).									
*. Correlation is significant at the 0.05 level (2-tailed).									

\*\* Correlation is significant at 1%, \* correlation is significant at 5%

## 6.5 DATA ANALYSIS

Factor analysis (FA) as a statistical approach is used to identify underlying the variables, or factors, that describe the pattern of association between a set of observed variables (Foroudi, 2013; Goretzko et al., 2021; Shrestha, 2021). It is often used for data reduction so as to identify a small number of factors that describe most of the variance observed in a much larger number of manifest variables (Lee, 2021; Tabachnick and Fidell, 2007; Shrestha, 2021): “Factor analysis is a general name denoting a class of procedures primarily used for data reduction” (Malhotra, 2010, p. 636).

In marketing and branding research, there might be several variables, most of which are correlated and need reducing to a manageable level (Lee, 2021; Malhotra, 2010). Relationships between variables are observed and represented in terms of a few underlying factors (Foroudi, 2013). In multiple regression, variance, and discriminant analysis, one variable is taken as a dependent variable and the others as independent variables, but no such distinction is made in factor analysis (Foroudi, 2013; Hair et al., 2006; Lee, 2021; Malhotra, 2010).

Factor analysis is an interdependence technique, where an overall set of interdependent relationships is inspected (Hair et al., 2006; Lee, 2021; Malhotra, 2010). Field (2009) and Malhotra (2010, pp. 636-637) suggested three different ways in which factor analysis could be used:

- (i) to identify underlying dimensions or factors that explain the correlation among a set of variables
- (ii) to identify a new, smaller set of uncorrelated variables to replace the original set of correlated variables in subsequent multivariate analysis, and
- (iii) to identify a smaller set of salient variables from a larger set for use in subsequent multivariate analysis.

In this research, two types of factor analysis were considered: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA identifies the underlying dimensions or factors that explain the correlation among a set of variables (Malhotra et al., 2012) and attempts to discover the nature of the constructs influencing a set of responses (Hair et al., 2006). It also explains the underlying structure of the data and can be used in developing theories “It is called an exploratory analysis, because no a priori restrictions are placed on the pattern of the relationships between the observed measures and the latent variables” (Brown, 2006, p. 20).

In contrast to EFA, “CFA is defined as a technique used to estimate the measurement model” (Malhotra, 2010, p. 726). It confirms if the number of factors and the loadings of observed variables on them confirm what is expected from the theory (Malhotra, 2010). In addition, it makes it possible to test the hypothesis, i.e., relationship between observed variables and the underlying latent construct (Malhotra, 2010). In this study, EFA was used to take the data in a group, after which the CFA techniques were applied to confirm the group of measurement variables related to a factor for testing the hypotheses (Field, 2009, Foroudi, 2013; Tabachnick and Fidell, 2007). EFA was carried out by using SPSS 26. EFA is discussed in detail in the next section.

### **6.5.1 Exploratory factor analysis (EFA)**

EFA is used to determine the factor structure of measures, examine internal reliability, and discover underlying structures in the relatively large set of variables (Goretzko et al., 2021; Tabachnick and Fidell, 2007). EFA analysis determines the dimensionality of a set of variables to test specifically whether one factor can account for the bulk of the common variance in a set. It is defined as a multivariate method for fitting measurement models, which describes the covariance among a set of observed variables in terms of a set of latent variables (Easterby-Smith et al., 2021; Foroudi, 2013; Goretzko et al., 2021).

Furthermore, EFA was used in this study as it can be used to analyse inter-relationships between large numbers of variables and explain these variables in terms of their common underlying factors (Foroudi, 2013; Goretzko et al., 2021; Hair et al., 2006), and it identifies the underlying dimensions or factors that explain the correlations among a set of variables (Goretzko et al., 2021; Malhotra, 2010). For every factor extracted, each variable has a loading on it, and these loadings are stated in the factor matrix (Alavi et al., 2020; Malhotra, 2010). Hence, it explores the underlying structure of the data and helps in developing a theory that leads to a proposed measurement model that can be tested using CFA (Goretzko et al., 2021; Malhotra, 2010; Malhotra et al., 2012).

Among the numerous procedures which can be chosen for factor extraction and rotation in SPSS 26, principal component analysis (PCA), KMO, scree plot, and finally sorted-by-size, were chosen for this study. PCA is used to generate the initial solutions for EFA (TabachNick and Fidell, 2007). In PCA, the total variance in the data is considered, which is applied for factor extraction. According to Tabachnick and Fidell (2007) and Malhotra (2010), PCA is recommended:

- (i) to identify and reduce the large set of variables into small number of components by transforming interrelated variables into new unrelated linear composite variables, and
- (ii) to help in the extraction of the maximum variance from the dataset so that the first component extracts the highest variance, and the last component extracts the least variance (Alavi et al., 2020; Foroudi, 2013).

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Barlett’s test of sphericity are suggested to achieve suitable factor analysis outcomes (Norusis, 1992) as they examine the appropriateness of the factor analysis (Malhotra, 2010; Malhotra et al., 2012). According to Tabachnick and Fidell (2007), when the values are high (i.e., between 0.50 and 1.0), it suggests that the factor analysis is appropriate, and when the values are low (i.e., below 0.50), it implies that the factor analysis may not be appropriate. In this research, all the values were found to be higher than 0.70, as shown in Table 6.9, suggesting that factor analysis was highly appropriate for the study.

Table 6.8: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.913
Bartlett's Test of Sphericity	Approx. Chi-Square	35324.447
	df	2145
	Sig.	.000



Source: Analysis of survey data

After KMO, researchers recommend (Lang and Jin, 2021; Tabachnick and Fidell, 2007; Schreiber, 2021) analysing communalities and eigenvalues. Communality is the amount of variance a variable share with all the other variables being considered (Malhotra, 2010; Schreiber, 2021). Field (2009) stressed that a variable with a random variance would have a communality equal to one, while a variable that did not share anything with other variables would have a communality equal to zero. It is suggested by various researchers (Hair et al., 2006; Foroudi, 2013; Lang and Jin, 2021; Malhotra et al., 2012; Pallant, 2007) that communality should be above 0.5; otherwise, the study will require a large sample size of 300 cases or more. Based on the results of this analysis, as set out in Table 6.10, only one item was deleted (TBE 1) because its communality was lower than 0.5.

Table 6.9: List of Communalities

Items	Initial	Extraction
PTS_1	1.000	.908
PTS_2	1.000	.796
PTS_3	1.000	.871
PTS_5	1.000	.789
PTC_1	1.000	.852
PTC_2	1.000	.786
PTC_3	1.000	.789
PTC_4	1.000	.856
PTC_5	1.000	.901
PTC_9	1.000	.888
PTE_1	1.000	.871
PTE_2	1.000	.834
PTE_3	1.000	.842
PTE_4	1.000	.827
PTE_9	1.000	.868
PTX_1	1.000	.840
PTX_2	1.000	.895
PTX_3	1.000	.850
PTX_4	1.000	.876
PTX_5	1.000	.903
PTX_6	1.000	.902
TSS_2	1.000	.629
TSS_3	1.000	.726
TSS_4	1.000	.724
TSS_6	1.000	.728
TSS_7	1.000	.723

TSS_8	1.000	.745
TST_1	1.000	.835
TST_2	1.000	.837
TST_3	1.000	.773
TST_5	1.000	.760
TST_6	1.000	.788
TST_7	1.000	.717
TST_9	1.000	.633
TSP_3	1.000	.889
TSP_4	1.000	.910
TSP_5	1.000	.848
TSP_7	1.000	.899
TSP_8	1.000	.878
TSP_9	1.000	.865
TSA_1	1.000	.814
TSA_4	1.000	.775
TSA_5	1.000	.784
TSA_7	1.000	.856
TSA_8	1.000	.851
TSA_10	1.000	.854
PR_1	1.000	.628
PR_2	1.000	.663
PR_3	1.000	.537
PR_4	1.000	.715
PR_6	1.000	.726
PR_7	1.000	.856
PR_8	1.000	.787
PR_10	1.000	.736
PR_11	1.000	.798
PR_12	1.000	.707
BP_2	1.000	.829
BP_5	1.000	.736
BP_7	1.000	.842
BP_8	1.000	.748
TBE_1	1.000	.439
TBE_7	1.000	.825
TBE_9	1.000	.860
TBE_10	1.000	.874
TBE_11	1.000	.896
TBE_12	1.000	.803
Extraction Method: Principal Component Analysis.		

Source: Analysis of survey data

Next, eigenvalues were calculated as a further stage of factor analysis as portrayed in Table 6.11. Eigenvalues show how many factors are extracted in the overall factor analysis. They represent the amount of variance attributed to each factor (Malhotra, 2010). If the component analysis variance of each variable that adds towards the principal factor extraction is one or higher, it is counted as significant, while a factor with an eigenvalue of less than one is counted as insignificant and is disregarded by the research (Hair et al., 2006; Tabachnick and Fidell, 2007).

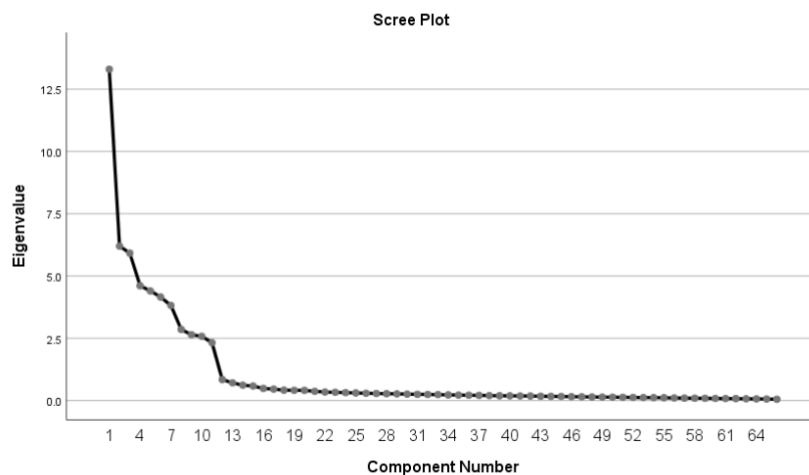
Table 6.10: Explanation of Total Variance

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.299	20.150	20.150	13.299	20.150	20.150	7.284	11.036	11.036
2	6.201	9.395	29.546	6.201	9.395	29.546	5.359	8.120	19.156
3	5.916	8.963	38.509	5.916	8.963	38.509	5.279	7.998	27.154
4	4.607	6.980	45.489	4.607	6.980	45.489	5.244	7.945	35.100
5	4.398	6.663	52.152	4.398	6.663	52.152	5.131	7.774	42.874
6	4.156	6.296	58.449	4.156	6.296	58.449	4.912	7.443	50.317
7	3.817	5.783	64.231	3.817	5.783	64.231	4.699	7.120	57.436
8	2.857	4.329	68.560	2.857	4.329	68.560	4.243	6.429	63.866
9	2.641	4.002	72.562	2.641	4.002	72.562	4.199	6.362	70.228
10	2.580	3.910	76.471	2.580	3.910	76.471	3.356	5.085	75.312
11	2.322	3.519	79.990	2.322	3.519	79.990	3.087	4.678	79.990
Extraction Method: Principal Component Analysis.									

Table 6.11 presents the total variance explained. In total, the extracted factors explain 79.9% of variations in the latent constructs. The scree plot was another criterion used in this study to find the number of factors: “A scree plot is a plot of the eigenvalues against the number of factors in order of extraction” (Malhotra, 2010, p. 643). The shape of the scree plot determines the number of factors. As Malhotra (2010, p. 643) explained, “The plot has a distinct break between the steep slope of factors, with large eigenvalues and a gradual trailing off associated with the rest of the factors”.

The scree plot is always higher for the first factor, moderate for the middle factors, and smaller for the final factor (Tabachnick and Fidell, 2007; Ranti et al., 2021). The gradual trailing off is called ‘scree’. Anecdotal evidence suggests that there can be one or several more factors than that given by the eigenvalue criterion (Malhotra, 2010; Malhotra et al., 2012; Ranti et al., 2021). However, the results as set out in Figure 6.16 indicate that no difference was found between the eigenvalues and the scree plot.

Figure 6.16: The Scree Plot



Source: Analysis of survey data

After the extraction of the factors, a rotated loading matrix was used in this study to determine the number of variables that load on each factor. According to Malhotra, “The rotated loading matrix contains a factor matrix, which contains the coefficients used to express the standardised variables in terms of the factors” (Malhotra, 2010, pp. 644-645). These coefficients represent the correlations between the factors and the variables (Ranti et al., 2021). A factor with a high value shows that the factors and variables are strongly correlated, while a low value shows that they have a very weak correlation (Hair et al., 2006; Malhotra, 2010). Previous researchers (Foroudi, 2013; Hair et al., 2021; Malhotra, 2010; Malhotra et al., 2012; Lang and Jin, 2021; Ranti et al., 2021) have suggested deleting variables with low values.

Table 6.12: Rotated Component Matrix

Rotated Component Matrix <sup>a</sup>											
	Component										
	1	2	3	4	5	6	7	8	9	10	11
PR_7	.906										
PR_11	.871										
PR_8	.860										
PR_6	.830										
PR_12	.812										
PR_10	.809										
PR_4	.809										
PR_2	.781										
PR_1	.746										
PR_3	.692										
TST_1		.898									
TST_2		.886									
TST_5		.862									
TST_6		.860									
TST_3		.858									
TST_7		.827									
TST_9		.769									
PTX_2			.930								
PTX_6			.930								
PTX_5			.929								
PTX_4			.924								
PTX_1			.908								
PTX_3			.900								
TSP_4				.923							
TSP_7				.912							
TSP_8				.912							
TSP_3				.905							
TSP_9				.901							
TSP_5				.889							
PTC_5					.910						
PTC_9					.899						
PTC_4					.875						

PTC_1					.865						
PTC_3					.865						
PTC_2					.839						
TSA_7						.898					
TSA_8						.895					
TSA_10						.892					
TSA_1						.864					
TSA_4						.858					
TSA_5						.855					
TBE_11							.940				
TBE_10							.928				
TBE_9							.924				
TBE_7							.901				
TBE_12							.891				
TBE_1							.651				
TSS_8								.832			
TSS_7								.816			
TSS_4								.815			
TSS_6								.813			
TSS_3								.812			
TSS_2								.722			
PTE_1									.899		
PTE_9									.889		
PTE_3									.879		
PTE_4									.855		
PTE_2									.850		
PTS_1										.916	
PTS_3										.899	
PTS_5										.862	
PTS_2										.856	
BP_7											.874
BP_2											.870
BP_8											.836
BP_5											.798
Extraction Method: Principal Component Analysis.											
Rotation Method: Varimax with Kaiser Normalization.											
a. Rotation converged in 6 iterations.											

Source: Analysis of survey data

Matsunaga (2011) suggested that 0.50 was a sophisticated value, which is frequently used and recommended by several social science researchers. In this study, no variables needed to be deleted owing to its low value, as shown in Table 6.12. The analysis suggested that transaction experience was a higher order construct. A higher order construct is one in which the covariances between the observed variables are explained by two or more levels or layers of latent construct (Malhotra, 2010, p. 738): “The most common higher order construct model is a second-order construct in which there are two levels or layers”. In this study, transaction experience was taken as a higher order construct with four lower order constructs, i.e., PTS, PTC, PTE, and PTX. Further, analysis in CFA was done based on the higher order construct’s requirements (Awang, 2012).

As a further aspect of the rotation matrix, some researchers (Hair et al., 2006; Tabachnick and Fidell, 2007; Foroudi, 2013; Malhotra, 2010) have also suggested deleting variables that are highly correlated with more than one factor. These situations make it difficult to interpret the factors. However, none of the variables in this study were found with high loadings on two factors. Nonetheless, several researchers have defined various methods of rotation that may result in identification of different factors (Hair et al., 2006; Field, 2009; Malhotra, 2010, p. 645).

The two main types of rotation methods are orthogonal and oblique (Gu et al., 2021). The orthogonal rotation method is used when every factor is independent of the other factors, while the oblique rotation method is used when the factors in the population are correlated to each other (Gu et al., 2021; Tabachnick and Fidell, 2007). In this study, the method most commonly used is the orthogonal rotation method, also known as the varimax procedure, which is an orthogonal method of rotation that minimises the number of variables with high loadings on a factor, thereby enhancing the interpretability of the factors (Malhotra, 2010; Tabachnick and Fidell, 2007; Trendafilov and Gallo, 2021). In summary, the researcher deleted only one item from this study based on exploratory factor analysis.

## **6.6 STRUCTURAL MODEL EVALUATION**

In this section, the conceptual model is evaluated by testing and measuring the hypotheses empirically. The section is divided into subsections, whereby it starts with introducing the concept of structural equation modelling (SEM), discussing the approach and then finally evaluating the model. The next section introduces the basic concepts of SEM.

### **6.6.1 Introduction to Structural Equation Modelling (SEM)**

Structural equation modelling (SEM) is a collection of statistical techniques that can help to combine the data and the underlying theory at the same time through the use of statistical software (Tabachnick and Fidell, 2006): “Structural equation modelling is also referred to as causal modelling, causal analysis, simultaneous equation modelling, analysis of covariance structures, path analysis, or confirmatory factor analysis”. The latter two are actually special types of SEM (Tabachnick and Fidell, 2006, p. 676).

There are different types of statistical software for analysing SEM, depending on the nature of the research. These software programs are designed to explain the multiple regression analysis of factors such as linear regression, factor analysis (FA), principal component analysis (PCA), analysis of variance (ANOVA), and multivariate analysis of variance (MANOVA). SEM makes it possible to design the conceptual model with multiple layer relationships which can account for multiple independent and dependent variables simultaneously (Hair et al., 2006). The response variable in one regression equation in a structural equation model may appear as a predictor in another equation.

However, variables in a structural equation model may affect each another either directly or through other variables as intermediaries. The structural equations represent the causal relationships between the variables within the model (Purwanto et al., 2020). A more charitable interpretation of SEMs could be to view them as a kind of informal thinking of the causal relationships which is common in theorising social science and marketing theories. Hence, the model proves to be useful for translating such theories into data analysis (Hair et al., 2006; Purwanto et al., 2020).

SEM usually contains two interrelated models explicitly, namely, the measurement model and the structural model (Hair et al., 2006). According to Tabachnick and Fidell (2007, p. 584), confirmatory factor analysis is a sophisticated technique, and it is used in the advanced stages of the research process (Purwanto et al., 2020). It helps to test a theory in terms of the relationship between a set of measurement items and their respective factors (Foroudi, 2013; Gupta et al., 2011). The part of the model that relates the measured variables to the factors is sometimes called the measurement model (Purwanto et al., 2020). It is also known as confirmatory factor analysis (CFA) to define the constructs (Foroudi, 2013; Purwanto et al., 2020).

As recommended by many authors (Anderson and Gerbing, 1988; Hair et al., 2006; Hair Jr et al., 2021; Purwanto et al., 2020), the two-step approach in structural equation modelling (SEM) examines the



importance of all pattern coefficients and thus presents a useful framework for formal comparisons of the substantive model of interest with the next likely theoretical alternatives (Foroudi, 2013). In this study, testing of the measurement model was carried out using the Partial Least Squares (PLS) to identify the causal associations between the observed items (variables) and the latent (unobserved) construct. At this stage, the validity of the construct was tested by confirmatory factor analysis (Hair et al., 2006). Next, the structural model was tested (through, i.e., the regression path), which explains the causal relations among the observed constructs.

As mentioned before, PLS-SEM has become one of the most prominent statistical analysis techniques used currently, and it has been used in some of the top marketing and strategic brand management journals where complex models have been involved (Hair Jr et al., 2021). PLS-SEM allows the simultaneous modelling of multiple layers and also analysis of the set of interconnected research questions in a single accurate model in a systematic manner (Chin et al., 2010, Hair Jr et al., 2021, Hult et al., 2018; Kline, 2011).

PLS-SEM is the perfect solution for complex models as is the case in this study (Hair JR et al., 2021). The study followed a two-step approach to studying SEM. Previous researchers (Ahmadinejad, 2020; Anderson and Gerbing, 1988; Astrachan et al., 2014; Gupta et al., 2021; Richter et al., 2016) have recommended using a two-step approach in studying SEM because of its advantages over a one-step approach in which the measurement and structural sub-models are estimated simultaneously and can suffer from interpretational confounding: “Interpretational confounding usually occurs as the assignment of empirical meaning to an unobserved variable, which is other than the meaning assigned to it by an individual a priori to estimating unknown parameters” (Anderson and Gerbing, 1988, p. 418).

This empirically defined meaning may change considerably depending on the specification of free and constrained parameters for the structural sub model (Anderson and Gerbing, 1988). Interpretational confounding is reflected by marked changes in the estimates of the pattern coefficients when alternate structural models are estimated: “The problems that occur owing to interpretational confounding can be minimised by separate estimation of the measurement model, because no constraints are placed on the structural parameters that relate the estimated constructs to one another” (Anderson and Gerbing, 1988, p. 418). Further, the pattern coefficients from the measurement model in the one-step approach change insignificantly and render the presence of interpretational confounding undetectable, which

can result in fit being maximised at the expense of the meaningful interpretability of the constructs (Anderson and Gerbing, 1988).

Compared to a one-step approach, the two-step approach is derived from strong theoretical justifications, and measurement items have been firmly established in prior research and have a good model fit (Ahmadinejad, 2020; Anderson and Gerbing, 1988; Gupta et al., 2021). The analysis and results of the two models are explained in the section below. Before undertaking structural equation modelling, it was necessary to define and suggest the type of measurement model used in this study. Usually, there are two types of measurement models: reflective and formative.

In a reflective model, the latent construct exists independent of the measures (Altikriti, 2021; Borsboom et al., 2003; Chi et al., 2021; Coltman et al., 2008). The causality is followed from the latent variable to the indicators. Therefore, a change in the construct is likely to cause a change in the indicators (Chi et al., 2021; Coltman et al., 2008). In reflective models, the indicators are high in intercorrelation, as they share a common theme and are interchangeable. The indicator interchangeability enables researchers to measure the construct by sampling a few relevant indicators underlying the domain of the construct (Coltman et al., 2008; Grimaccia, 2021; Nunnally and Bernstein, 1994). Moreover, since the reflective indicators share similar themes, they all have a similar relationship with the antecedents and consequences of the construct (Chi et al., 2021; Grimaccia, 2021).

In contrast, the latent construct in a formative model is based on measures (Chi et al., 2021; Borsboom et al., 2003; Coltman et al., 2008; Grimaccia, 2021): “The causality flows from the indicators to the construct” (Coltman et al., 2008, p. 1,251). A change in the indicators, i.e., adding or removing indicators, may result in a change to the conceptual domain of the construct (Coltman et al., 2008; Grimaccia, 2021), as indicators in a formative model possess low or no intercorrelation and do not necessarily have a similar relationship with other constructs to the one the latent construct has.

In nearly all business studies, latent factors are measured using reflective indicators (Altikriti and Anderson, 2021; Chi et al., 2021; Diamantopoulos, 1999; Coltman et al., 2008; Foroudi, 2013). However, this study takes into account and includes both the reflective and formative approaches or modelling. The first part of the model, i.e., transaction experience is a formative variable and measured through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security and thus is formative in nature. On the other hand, the rest of the model is reflective, as like as most of the business and marketing studies. This poses a

challenge for analysis and makes the model complex; hence, instead of CB-SEM, PLS-SEM was chosen, since PLS-SEM can account for both reflective and formative variables at the same time (Chi, et al., 2021; Hair Jr et al., 2021). Among the two-step approach to the measurement model, the first step is detailed in the next section.

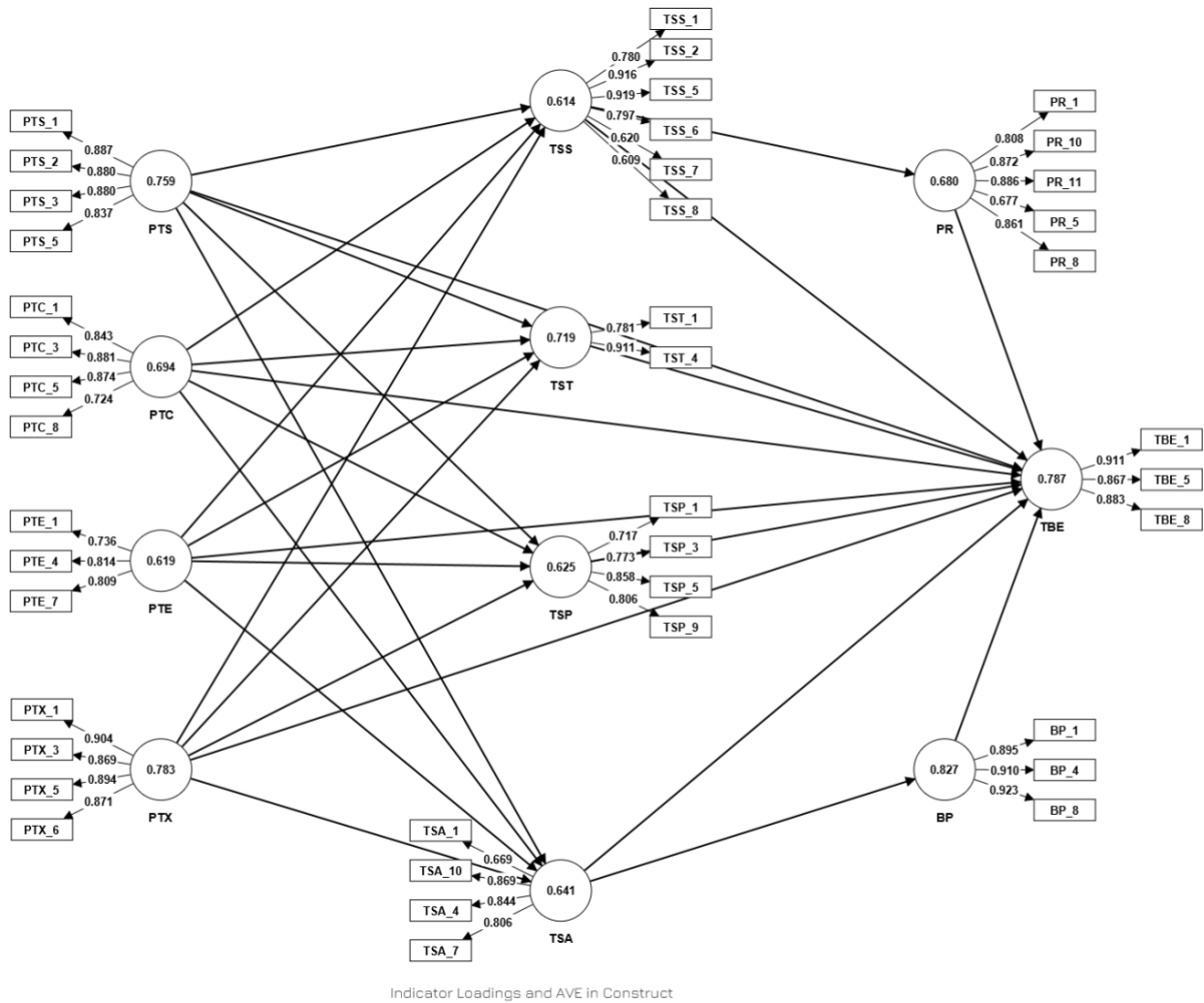
### **6.6.2 Step 1: Measurement Model and Results**

The first part of evaluating the model was the measurement model using the confirmatory factor analysis (CFA) technique. CFA helps to evaluate the reliability and validity and specifies which variables define the construct (Manley et al., 2020). It further confirms if the number of factors and the loadings of variables on them match what is expected based on the theory (Gupta et al., 2021; Malhotra, 2010, p.725). Hence, it allows researchers to test the hypothesis that a relationship between variables and their latent constructs exists and helps remove items that do not cluster with other items (Malhotra, 2010).

The first assessment of the measurement model was the reliability test. Measurement of reliability was used both at the item level and the construct level (Hair et al., 2006). Reliability at the item level assessed the internal consistency of the measuring of observed items in order to represent a latent construct and ignore the additional dimensions that occurred by factor analysis due to the ‘refuse’ items (Churchill, 1979; Hair et al., 2006; Manley et al., 2020): “Internal consistency is defined as an approach assessing the internal consistency of the set of items, when several items are summarised in order to form a total score for the scale” (Malhotra, 2010, p. 319; Malhotra et al., 2012). As Malhotra went on to say, “In a scale of this type, each item measures some aspect of the construct measured by the entire scale, and the items should be consistent in what they indicate about the characteristic” (Malhotra, 2010, p. 319). This measure of reliability is based on the internal consistency of the items shaping a scale.

Cronbach’s alpha, which is a measure of internal consistency reliability, was used to assess the internal consistency of the items. Therefore, it means that it is the average of all possible split-half coefficients resulting from different splitting of the scale items (Malhotra, 2010, p. 319; Malhotra et al., 2012). In this research, a minimum threshold criterion of over 0.6 was used as a standard (DeVellis, 2003; Hair et al., 2006; Hair Jr et al.; 2021; Manley et al., 2020; Tabachnick and Fidell, 2007).

Figure 6. 12: Confirmatory Factor Analysis



Source: Survey data analysed in Smart PLS 3.3.5

Figure 6.17 presents the measurement model of the study. To be able to measure the validity and reliability of the higher order construct (TE), the validity and reliability of the lower order constructs (PTS, PTC, PTE, and PTX) must first be assessed. The outer model shows the indicator loadings, while the inner model shows the path coefficients, which are not considered as this level, and the R<sup>2</sup> values inside the endogenous variables. Table 6.13 further justifies the assessment of the measurement model.

Table 6.13: Assessment of Validity and Reliability of Lower Order Constructs

LOC	Indicator	Indicator Loading	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
PTS	PTS_1	0.887	0.894	0.907	0.926	0.759
	PTS_2	0.88				
	PTS_3	0.88				
	PTS_5	0.837				
PTC	PT1	0.843	0.852	0.874	0.9	0.694
	PT3	0.881				
	PT5	0.874				
	PT8	0.724				
PTE	PT1	0.736	0.699	0.718	0.83	0.619
	PT4	0.814				
	PT7	0.809				
PTX	PTX_1	0.904	0.907	0.911	0.935	0.783
	PTX_3	0.869				
	PTX_5	0.894				
	PTX_6	0.871				
TSS	TSS_1	0.78	0.882	0.847	0.903	0.614
	TSS_2	0.916				
	TSS_5	0.919				
	TSS_6	0.797				
	TSS_7	0.62				
	TSS_8	0.609				
TST	TST_1	0.781	0.623	0.695	0.836	0.719
	TST_4	0.911				
TSP	TSP_1	0.717	0.798	0.809	0.869	0.625
	TSP_3	0.773				
	TSP_5	0.858				
	TSP_9	0.806				
TSA	TS1	0.669	0.817	0.854	0.876	0.641
	TS10	0.869				
	TS4	0.844				
	TS7	0.806				
PR	PR_1	0.808	0.881	0.908	0.913	0.68
	PR_10	0.872				

	PR_11	0.886				
	PR_5	0.677				
	PR_8	0.861				
BP	BP_1	0.895	0.896	0.908	0.935	0.827
	BP_4	0.91				
	BP_8	0.923				
TBE	TB1	0.911	0.865	0.865	0.917	0.787
	TB5	0.867				
	TB8	0.883				

The measurement model was assessed using four criteria, namely, indicator reliability, convergent reliability, composite reliability, and discriminant validity (Hair et al., 2016). Indicator reliability was tested using the indicator loading, the Cronbach's Alpha, and Rho\_A. According to Hair et al. (2016), and Ali et al. (2017b), the minimum acceptable level for indicator reliability and for Rho\_A is 0.7. Meanwhile for Cronbach's alpha, the value should be greater than 0.7 for it to be acceptable (Hair et al., 2014). As far as indicator reliability is concerned, only one item was removed from TBE (TBE\_1). All other latent constructs retained all their items because their indicator loadings were all greater than 0.7. The minimum Cronbach's alpha for all the latent constructs was 0.908 (BP) and that of Rho\_A was 0.916 (TSS). This shows that the items were closely related to each other therefore showing that there were no internal consistency issues in the data and thus that the data were suited to an SEM analysis (Hair Jr et al., 2020).

Alongside Cronbach's alpha, composite reliability was also used to assess the reliability of the construct. This is defined as "the total amount of true score variance in relation to the total score variance" (Malhotra, 2010, p. 319). Composite reliability was tested using Rho\_C (Uijterwaal, 2021). According to Raykov (1997) and Tenenhaus et al. (2005), the coefficient of Rho\_C should be greater than or equal to 0.7. Composite reliability can be thought of as being the total amount of true score variance relative to the total scale score variance (Uijterwaal, 202). As displayed in Table 6.13, all composite reliability scores exceeded the threshold of 0.7, which indicates an excellent score for composite reliability. The minimum composite reliability score was 0.83 for PTE, and the maximum score was 0.935 for PTS. This also indicates that the data were suitable for an SEM analysis (Hair et al., 2016; Uijterwaal, 2021).

Three types of validity tests were also used in this study: convergent validity, discriminant validity, and nomological validity. Convergent validity defines the homogeneity of the constructs (Hair et al.,

2006). It measures the extent to which the scale correlates positively with other measures of the same scale (Hair et al., 2006; Malhotra, 2010, p. 734). Convergent validity was measured using the average variance extracted (AVE). According to Chin (2010), Fornell and Lacker (1981), and Lekwa et al. (2019), the AVE should be  $\geq 0.5$ . The average variance extracted is a measure of the amount of variance that is captured by a construct in relation to the amount of variance due to measurement error. As shown in Table 6.13, the smallest value observed for average variance extracted is 0.614 (TSS). All the values exceeded the threshold of 0.5. This further confirms the reliability of the data for an SEM analysis, as all values are above the conventional threshold prescribed by researchers (Chin, 2010, Fornell and Lacker, 1981; Lekwa et al., 2019).

The next validity method used in this study was that of discriminant validity (Hair et al., 2006). Discriminant validity refers to the extent to which measures do not correlate with other constructs, i.e., each construct is completely different and distinct from other constructs in the study (Hair et al., 2006; Malhotra, 2010; Steenkamp and Van Trijp, 1991). The Fornell Lacker criterion was used to assess the degree of shared variance between the latent variables of a model (Ab Hamid et al., 2017). According to the model, the square of the shared variance should be greater than the variance shared with any other latent variable in the model. As shown in Table 6.14, all the squared variances for each construct are greater than the shared variance with other constructs. This indicates there is discriminant validity according to the Fornell-Lacker criterion (Keni, 2021).

Table 6.14: Discriminant Validity Using the Fornell-Larcker Criterion

	PTS	PTC	PTE	PTX	TSS	TST	TSP	TSA	PR	BP	TBE
PTS	<b>0.871</b>										
PTC	0.321	<b>0.833</b>									
PTE	0.274	0.4	<b>0.787</b>								
PTX	0.21	0.565	0.472	<b>0.885</b>							
TSS	0.085	0.16	0.086	0.063	<b>0.783</b>						
TST	0.356	0.642	0.358	0.486	0.181	<b>0.848</b>					
TSP	0.207	0.566	0.266	0.328	0.139	0.381	<b>0.79</b>				
TSA	0.066	0.267	0.109	0.234	0.041	0.279	0.208	<b>0.801</b>			
PR	0.494	0.52	0.32	0.393	0.148	0.573	0.455	0.228	<b>0.824</b>		
BP	0.515	0.326	0.19	0.175	0.17	0.435	0.165	0.23	0.448	<b>0.909</b>	
TBE	0.26	0.643	0.314	0.495	0.14	0.61	0.513	0.281	0.514	0.355	<b>0.887</b>

Source: Analysis of survey data

One criterion of assessing discriminant validity is the cross-loading criterion (Keni, 2021). When one item loads highly on more than one latent construct, this presents a problem of discriminant validity (Fornell and Lacker, 1981; Hair et al., 2014). Table 6.15 presents the results of discriminant validity according to the cross-loading criterion. From the table, it can be observed that each item loads perfectly only on its latent constructs and loads very low on the other latent constructs. This confirms that there is no issue of discriminant validity in the data. It is therefore considered well suited for a structural equation model, as respondents were able to adequately differentiate between the latent variables in their responses.

Table 6.11: Discriminant Validity using the Cross Loadings Criterion

	PTS	PTC	PTE	PTX	TSS	TST	TSP	TSA	PR	BP	TBE
PTS_1	<b>0.887</b>	0.219	0.17	0.167	0.038	0.313	0.153	0.108	0.381	0.472	0.213
PTS_2	<b>0.88</b>	0.267	0.224	0.137	0.047	0.324	0.115	0.013	0.376	0.452	0.179
PTS_3	<b>0.88</b>	0.354	0.269	0.238	0.075	0.329	0.271	0.072	0.495	0.433	0.281
PTS_5	<b>0.837</b>	0.26	0.286	0.174	0.137	0.269	0.157	0.028	0.451	0.444	0.218
PT1	0.282	<b>0.843</b>	0.32	0.44	0.178	0.539	0.402	0.219	0.413	0.287	0.516
PT3	0.251	<b>0.881</b>	0.337	0.545	0.101	0.605	0.585	0.345	0.496	0.274	0.644
PT5	0.297	<b>0.874</b>	0.37	0.482	0.125	0.53	0.472	0.207	0.407	0.255	0.531
PT8	0.245	<b>0.724</b>	0.309	0.398	0.144	0.448	0.401	0.071	0.408	0.282	0.419
PT1	0.165	0.312	<b>0.736</b>	0.304	-0.032	0.221	0.186	0.044	0.154	0.12	0.214
PT4	0.173	0.287	<b>0.814</b>	0.416	-0.025	0.275	0.196	0.034	0.234	0.148	0.265
PT7	0.285	0.343	<b>0.809</b>	0.386	0.207	0.331	0.238	0.155	0.334	0.172	0.258
PTX_1	0.169	0.512	0.449	<b>0.904</b>	0.046	0.442	0.349	0.26	0.388	0.143	0.443
PTX_3	0.187	0.466	0.423	<b>0.869</b>	0.034	0.426	0.293	0.201	0.347	0.148	0.43
PTX_5	0.187	0.519	0.387	<b>0.894</b>	0.084	0.44	0.268	0.209	0.323	0.16	0.461
PTX_6	0.203	0.502	0.412	<b>0.871</b>	0.06	0.409	0.243	0.15	0.328	0.17	0.415
TSS_1	0.066	0.081	0.042	0.024	<b>0.78</b>	0.091	0.1	-0.035	0.099	0.103	0.107
TSS_2	0.08	0.136	0.048	0.041	<b>0.916</b>	0.191	0.095	0.059	0.121	0.149	0.124
TSS_5	0.044	0.131	0.076	0.059	<b>0.919</b>	0.183	0.14	0.083	0.165	0.125	0.144
TSS_6	0.09	0.149	0.087	0.065	<b>0.797</b>	0.155	0.06	0.038	0.088	0.209	0.076
TSS_7	0.041	-0.032	0.007	-0.059	<b>0.62</b>	-0.027	-0.02	-0.077	-0.034	-0.019	-0.041
TSS_8	0.067	0.113	0.083	0.037	<b>0.609</b>	0.052	0.148	-0.037	0.082	0.063	0.078
TST_1	0.3	0.396	0.257	0.31	0.146	<b>0.781</b>	0.17	0.144	0.439	0.478	0.383
TST_4	0.309	0.654	0.341	0.488	0.162	<b>0.911</b>	0.431	0.304	0.528	0.305	0.618
TSP_1	0.155	0.447	0.141	0.211	0.007	0.236	<b>0.717</b>	0.142	0.36	0.105	0.335
TSP_3	0.2	0.41	0.155	0.228	0.167	0.3	<b>0.773</b>	0.148	0.369	0.165	0.388
TSP_5	0.143	0.519	0.237	0.304	0.11	0.319	<b>0.858</b>	0.214	0.369	0.14	0.45



TSP_9	0.165	0.412	0.291	0.283	0.147	0.342	<b>0.806</b>	0.146	0.346	0.114	0.438
TS1	0.046	0.094	0.078	0.093	0.002	0.136	0.02	<b>0.669</b>	0.078	0.101	0.069
TS10	0.049	0.221	0.046	0.208	-0.008	0.232	0.233	<b>0.869</b>	0.234	0.164	0.242
TS4	-0.003	0.236	0.047	0.198	0.021	0.217	0.156	<b>0.844</b>	0.167	0.191	0.255
TS7	0.11	0.248	0.164	0.208	0.092	0.269	0.186	<b>0.806</b>	0.204	0.237	0.258
PR_1	0.469	0.367	0.295	0.281	0.005	0.45	0.313	0.105	<b>0.808</b>	0.364	0.336
PR_10	0.416	0.485	0.305	0.402	0.198	0.552	0.422	0.213	<b>0.872</b>	0.368	0.523
PR_11	0.426	0.472	0.27	0.336	0.118	0.516	0.425	0.189	<b>0.886</b>	0.373	0.474
PR_5	0.248	0.377	0.165	0.236	0.111	0.389	0.333	0.276	<b>0.677</b>	0.343	0.353
PR_8	0.482	0.407	0.273	0.325	0.129	0.421	0.35	0.142	<b>0.861</b>	0.409	0.375
BP_1	0.437	0.254	0.148	0.148	0.12	0.322	0.12	0.183	0.371	<b>0.895</b>	0.27
BP_4	0.504	0.342	0.186	0.171	0.177	0.48	0.2	0.217	0.423	<b>0.91</b>	0.352
BP_8	0.46	0.286	0.179	0.156	0.16	0.372	0.124	0.222	0.422	<b>0.923</b>	0.337
TB1	0.155	0.588	0.275	0.423	0.06	0.524	0.455	0.261	0.4	0.255	<b>0.911</b>
TB5	0.328	0.539	0.33	0.412	0.199	0.544	0.458	0.23	0.507	0.376	<b>0.867</b>
TB8	0.202	0.584	0.23	0.481	0.109	0.554	0.45	0.257	0.455	0.309	<b>0.883</b>

Source: Analysis of survey data

Next, the HTMT ratio was measured. The HTMT ratio is a measure of similarity between latent variables (Hair et al., 2006; Purwanto, 2021). If the HTMT is clearly smaller than 1, then it can be considered that discriminant validity is established. Ideally, the HTMT ratio should be  $\leq 0.85$  for discriminant validity to be established (Gold et al., 2001; Hair et al., 2006; Kline, 2011). The HTMT ratio is considered the most appropriate measure of discriminant validity (Hair et al., 2014). As seen in Table 6.16, all values of HTMT are significantly lower than 0.85; the largest value of HTMT is between PTC and PTC ( $HTMT = 0.396$ ), which is far lower than the threshold of 0.85.

Table 6.12: Heterotrait-Monotrait Ratio (HTMT)

	PTS	PTC	PTE	PTX	TSS	TST	TSP	TSA	PR	BP
PTC	0.364									
PTE	0.331	0.517								
PTX	0.229	0.637	0.586							
TSS	0.095	0.16	0.146	0.069						
TST	0.477	0.839	0.518	0.622	0.196					
TSP	0.239	0.677	0.343	0.38	0.167	0.498				
TSA	0.096	0.282	0.13	0.253	0.092	0.35	0.229			
PR	0.553	0.59	0.387	0.429	0.136	0.758	0.537	0.247		
BP	0.574	0.373	0.232	0.194	0.155	0.608	0.193	0.25	0.505	

TBE	0.287	0.738	0.399	0.557	0.14	0.798	0.614	0.305	0.572	0.396
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Source: Analysis of survey data

This signifies that respondent were able to appropriately differentiate between the different latent variables in the study in their responses. With these three measures of discriminant validity, all meeting their specified requirements, it can be concluded that discriminant validity was established for this study (Hair et al., 2006).

Table 6.13: Model Fit

	<b>Saturated model</b>	<b>Estimated model</b>
SRMR	0.062	0.15
ULS	3.44	20.353
G	1.239	1.504
Chi-square	3570.314	4013.918
NFI	0.751	0.72

Source: Analysis of survey data

The final type of validity test used on the measurement model was that of nomological validity. Nomological validity is used to assess the relationships between theoretical constructs (Hair et al., 2006): “It seeks to confirm significant correlations between the constructs as predicted by the theory” (Malhotra, 2010, p. 321). The fit measures are usually used as sufficient conditions to assess nomological validity (Steenkamp and Van Trijp, 1991; Foroudi, 2013). They measure the overall goodness-of-fit index or badness-of-fit index for the measurement model (and structural model, which was used later). Goodness-of-fit indices indicate how well the specified model fits the observed or sample data. Therefore, higher values of these measures are desirable; on the other hand, badness-of-fit indices measure error or deviations in some form, and so lower values of these indices are desirable (Malhotra, 2010; Malhotra et al., 2012).

**Chi-square ( $\chi^2$ )** This is a badness-of-fit measure (Hair et al., 2006; Mai et al., 2021). Minimum value of discrepancy is used to test the null hypothesis that the estimated variance-covariance matrix deviates from the sample. It is sample sensitive. The more the implied and sample moments differ, the bigger the chi-square statistic is, and the stronger the evidence against the null hypothesis. It is acceptable when  $p > 0.05$  (at  $\alpha$  equal to 0.05) (Hair et al., 2006).

**Root means square error of approximation residual (SRMR)** This is the population discrepancy function, which implies how well the fitted model approximates per degree of freedom. It is acceptable when value <0.05 is a good fit, and value 0.08-0.05 is an adequate fit (Hair et al., 2006; Montoya et al., 2021).

**Normed fit index (NFI)** This compares the proposed model with the null model, without considering the degrees of freedom (not adjusted for df) (Hair et al., 2006; Sahoo, 2019). The effect of sample size is strong. Value >0.95 is a good fit, and values above 0.8 and close to 0.90 indicate an acceptable fit.

Table 6.14: Higher Order Construct Validity

HOC	LOC	VIF	Outer Weights	Outer Loadings	Decision
Transaction Experience	PTC	1.598	0.81**	0.98**	Validated
	PTE	1.369	0.04	0.49**	
	PTS	1.147	0.11**	0.43**	
	PTX	1.643	0.20**	0.70**	

\*\* significant at 1%, \* significant at 5%

Source: Analysis of survey data

Table 6.18 presents the validity and reliability of the higher order construct (TE). Since TE was measured formatively, the validity and reliability of its lower order constructs were assessed before using their latent variable scores to assess the validity and reliability of the higher order construct. Constructs viewed as being formed by their indicators (Bagozzi and Fornell 1982; Bollen and Lennox 1991) are termed formative, meaning the construct is formed or induced by its measures (Fornell and Bookstein 1982; Gefen et al. 2000). Formative constructs are commonly conceived as composites of specific component variables or dimensions (Edwards and Bagozzi 2000). A study by Roberts and Thatcher, 2019 takes into consideration the concept of formative constructs in the field of IS. Another study by Al-Qeisi et al. (2014) studies technology in retail sector taking into account formative constructs.

The validity and reliability of formative constructs is measured through three metrics: outer weights, outer loadings, and VIF (Hair et al., 2006; Le Duc et al., 2021).

For an item to be considered significant, its outer weight has to be significant, its outer loadings have to be significant, and the VIF has to be lower than 3 (Hair et al., 2006; Le Duc et al., 2021). PTE had

an outer weight greater than 0.05. However, all outer loadings were significant. and all the VIFs were lower than 3. Therefore, these items can be considered significant measurements of the formative construct TE. Hence, step two of the measurement was carried out, as discussed in the next section.

Table 6.15: Latent Variable Descriptive statistics

	Mean	Median	min	max	SD	kurtosis	Skewness	N
BP	5.158	5.5	1	6.493	0.935	-0.418	-0.647	400
PR	5.525	6	1	7	0.975	0.016	-0.999	400
TBE	5.038	5.5	1	6.729	1.434	-0.33	-0.751	400
TSA	5.841	6.167	1	7	0.831	2.206	-1.655	400
TSP	5.337	6	1	6.89	0.835	-0.132	-1.094	400
TSS	5.695	6	0.92	7	1.13	0.982	-1.241	400
TST	5.517	6	1	6.7	0.889	0.666	-1.318	400
TE	5.706	6	1.177	6.911	0.788	-0.293	0.394	400

Table 6.14 shows the latent variable descriptive statistics of the main variables of the study. All variables were measured on a 7-point Likert scale ranging from strongly negative to strongly positive, yielding a population mean of 4. Since all mean scores were greater than 4, which is the neutral point, we can deduce that the average respondent had a positive opinion on each construct. In addition, the variation among all latent constructs is relatively equal. This means that opinion was stable in all latent constructs.

Table 6.16: Latent Variable Correlations

	TE	TSS	TST	TSP	TSA	PR	BP
TE							
TSS	0.16**						
TST	0.67**	0.19**					
TSP	0.56**	0.14**	0.38**				
TSA	0.28**	0.04	0.28**	0.21**			
PR	0.57**	0.15**	0.57**	0.46**	0.23**		
BP	0.37**	0.17**	0.44**	0.17**	0.23**	0.45**	
TBE	0.66**	0.14**	0.61**	0.51**	0.28**	0.51**	0.36**

\*\* correlation is significant at 1%, \* correlation is significant at 5%

Table 6.15 presents the correlation matrix of the latent constructs. We can observe from the table that there is a strong positive and significant relationship between all the variables in the study. All variables have a strong and significant relationship with each other.

### 6.6.3 Step 2: Structural Model and Results - Hypotheses Testing

Step two estimates the assumed causal and covariance linear relationship among the exogenous (independent) and endogenous (dependent) latent variables. The structural model allows evaluation of the inner model or path model. The operational model for transaction experience is illustrated in Figure 6.18. The structural model details the causal associations among theoretical constructs (Anderson and Gerbing, 1982; Chau, 1997, Foroudi, 2013). A partial least squares structural equation model was chosen to test the hypotheses of this study (Hair Jr et al., 2021). This method was chosen because the variables showed no normal distribution. As the values were not normally distributed, non-parametric tests were used for all statistical analyses.

PLS-SEM is now used in top marketing and strategic brand management journals especially where complex models are evident (Hair Jr et al., 2021). PLS-SEM allowed the simultaneous modelling of multiple layers and answered the set of interconnected research questions in a single accurate model in a systematic manner (Chin et al., 2010, Hair et al., 2021, Hult et al., 2018; Kline, 2011). Thus, the study made a methodological contribution to social science research and hopefully makes researchers aware of a tool that will enable them to pursue research opportunities in a different way (Hair et al., 2021).

Furthermore, this study tested a very complex conceptual framework and tried to analyse both formative and reflective variables at the same time. This was simultaneously an immense challenge and a significant contribution. The transaction experience was treated as a formative variable and measured through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security; hence, this part of the model was a formative measure of transaction experience, while the rest of the model was a reflective measure. Transaction experience was treated as a second order variable which was measured through the lower order constructs (PTS, PTC, PTE, and PTX). The result of the PLS analysis is displayed in Table 6.18 and Figure 6.19.

Table 6.17: Structural Model Assessment

	<b>R square</b>	<b>Adj R square</b>	<b>Q<sup>2</sup>predict</b>
TBE	0.53**	0.52**	0.46
PR	0.02	0.02	0.027
BP	0.05*	0.05*	0.042

Inferring from the  $R^2$  of TBE of 53% and the adjusted  $R^2$  (Coefficient of multiple determination) of 52%, we can deduce that approximately 52% of variations in the TBE are accounted for or explained by variations in PTS, PTC, PTE, PTX, TSS, TST, TSP, TSA, PR and BP. Given a bootstrap p value of  $<0.01$  which is lower than the significance level of 0.05, we can conclude that PTS, PTC, PTE, PTX, TSS, TST, TSP, TSA, PR, and BP provide a significant amount of information to explain TBE (Hair et al., 2019a). In addition to the R square, the PLSpredict was also used to test the out-of-sample predictive power of the model. Given a PLS predict value of 0.46 for TBE, we can infer that the model has a high predictive relevance in predicting TBE (Hair et al., 2019a). This means that the variables chosen are good predictors of the dependent variable.

### 6.6.3.1 Assessment of Direct Effects- Verification of Hypotheses

In this section, the direct effects are assessed, and the hypotheses are verified. The testing of the hypotheses was undertaken using the Partial Least Squares (PLS). It was evident that H1, H2, H3, H4, H5, H6, H7, and H9, had a positive and significant effect. In contrast, H8 had a positive but insignificant effect, and the rest of the hypotheses (H10, H11, H12, and H13) had a negative and insignificant effect. Each hypothesis is discussed below-

Table 6.18: Assessment of Direct Effects

	<b>Coeff</b>	<b>Std Err</b>	<b>T Stat</b>	<b>P values</b>	<b>F<sup>2</sup></b>	<b>L95% BCa CI</b>	<b>U95% BCa CI</b>
TE -> TSS	0.157	0.045	3.517	0.000	0.025	-0.082	0.219
TE -> TST	0.452	0.035	12.73	0.000	0.364	0.376	0.517
TE -> TSP	0.559	0.032	17.363	0.000	0.455	0.488	0.617
TE -> TSA	0.276	0.04	6.907	0.000	0.082	0.193	0.348
TE -> TBE	0.317	0.054	5.895	0.000	0.09	0.207	0.418
TSS -> PR	0.151	0.046	3.276	0.001	0.023	0.041	0.219
TSS -> TBE	0	0.033	0.002	0.998	0	-0.066	0.062
TST -> TBE	0.242	0.05	4.853	0.000	0.058	0.145	0.341
TSP -> TBE	0.191	0.042	4.582	0.000	0.05	0.109	0.271
TSA -> BP	0.23	0.046	4.993	0.000	0.056	0.133	0.316
TSA -> TBE	0.059	0.03	1.95	0.051	0.007	-0.002	0.12
PR -> TBE	0.069	0.05	1.379	0.168	0.005	-0.028	0.168
BP -> TBE	0.056	0.036	1.565	0.118	0.005	-0.017	0.123

***H1: In a retail facility, the speedier, more convenient, enjoyable, and secure a transaction experience is, the higher the transaction-specific satisfaction for the retailer is.***

At a confidence interval of 99%, transaction experience (TE) has a positive and significant effect on TSS ( $\beta = 0.157_{[-0.082 - 0.219]}$ ,  $t = 3.517$ ,  $p < 0.01$ ) all other variables are constant. For each unit increase in TE, TSS increases by 15.70%. Inferring from the significance of the t statistic of 3.517 we will be taking a 0.00% risk in assuming that TE has a significant effect on the TSS which is lower than the level of significance of 5%. Furthermore, the effect size for the effect of TE on TSS is 0.025, implying that TE has a small effect on TSS (Hair et al., 2019). Therefore, we conclude that TE has a positive and significant effect on TSS

***H2: In a retail facility, the speedier, more convenient, enjoyable, and secure a transaction experience is, the higher the transaction-specific trust is for the retailer.***

At a 99% confidence interval, TE has a positive and significant effect on TST ( $\beta = 0.452_{[0.376 - 0.517]}$ ,  $t = 12.73$ ,  $p < 0.01$ ) all other variables are constant. For each unit increase in TE, TST increases by 45.20%. Inferring from the significance of the t statistic of 12.73 we will take a 0.00% risk in assuming that TE has a significant effect on the TST which is lower than the level of significance of 5%. Furthermore, the effect size for the effect of TE on TST is 0.364, implying that TE has a large effect on TST (Hair et al., 2019). Therefore, we conclude that TE has a positive and significant effect on TST.

***H3: In a retail facility, the speedier, more convenient, enjoyable, and secure a transaction experience is, the higher the transaction-specific performance is for the retailer.***

At a 99% confidence interval, TE has a positive and significant effect on TSP ( $\beta = 0.559_{[0.488 - 0.617]}$ ,  $t = 17.363$ ,  $p < 0.01$ ) all other variables are constant. For each unit increase in TE, TSP increases by 55.90%. Inferring from the significance of the t statistic of 17.363 we will be taking a 0.00% risk in assuming that TE has a significant effect on the TSP, which is lower than the level of significance of 5%. Furthermore, the effect size for the effect of TE on TSP was 0.455, implying that TE has a large effect on TSP (Hair et al., 2019). We therefore conclude that the TE has a positive and Significant effect on TSP.

***H4: In a retail facility, the speedier, more convenient, enjoyable, and secure a transaction experience is, the higher the transaction-specific associations are for the retailer.***

At a confidence interval of 99%, TE has a positive and significant effect on TSA ( $\beta = 0.276_{[0.193 - 0.348]}$ ,  $t = 6.907$ ,  $p < 0.01$ ) all other variables being constant. For each unit increase in TE, TSA increases by 27.60%. Inferring from the significance of the t statistic of 6.907 we will be taking a 0.00% risk in assuming that the TE has a significant effect on TSA which is lower than the level of significance of 5%. Furthermore, the effect size for the effect of TE on TSA is 0.082, implying that TE has a small effect on TSA (Hair et al., 2019). Therefore, we conclude that TE has a positive and significant effect on TSA.

***H5: In a retail facility, the higher the customer's transaction-specific satisfaction is, the higher the customers' perceived reputation is for the retailer.***

At a 99% confidence interval, TSS has a positive and significant effect on PR ( $\beta = 0.151_{[0.041 - 0.219]}$ ,  $t = 3.276$ ,  $p < 0.01$ ) all other variables are constant. For each unit increase in TSS, PR increases by 15.10%. Inferring from the significance of the t statistic of 3.276 we will take a risk of 0.10% if TSS has a significant effect on PR that is lower than the level of significance of 5%. Furthermore, the effect size for the effect of TSS on PR of 0.023 implies that TSS has a small effect on PR (Hair et al., 2019). Therefore, we conclude that TSS has a positive and significant effect on PR.

***H6: In a retail facility, the higher the transaction-specific associations are, the higher the chance of customers perceiving brand personalities is in favour of the retailer.***

At a 99% confidence interval, transaction-specific associations (TSA) have a positive and significant effect on brand personality (BP), all other variables being constant. For every one standard deviation increase in the TSA, BP increases by 0.223 standard deviations. It can be inferred from the significance of the t statistic of 5.035 that a lower than 0.01% risk will be taken in assuming that the TSA have a significant effect on the BP, which is lower than the level of significance of 5%. Given a corresponding effect size of 0.052, which is greater than the threshold of 0.02, as prescribed by Cohen (1988), it can be concluded that TSA has a small effect on BP. The risk to reject the null hypothesis while it is true is 0.1%. Hence, it could be concluded that TSA brings a significant amount of information in explaining BP.



***H7: In a retail facility, the higher the customers' perceived reputation is, the higher the transaction-specific brand equity is for that retailer.***

PR has a positive but insignificant effect on TBE ( $\beta = 0.069, [-0.028 - 0.168], t = 1.379, p > 0.05$ ) all other variables being constant. For each unit increase in PR, TBE increases by 6.90%. Inferring from the significance of the t statistic of 1.379 we will be taking a 16.80% risk in assuming that the PR has a significant effect on TBE which is greater than the level of significance of 5%. Furthermore, the effect size for the effect of PR on TBE is 0.005, implying that PR has no effect on TBE (Hair et al., 2019). We therefore conclude that PR has a positive but insignificant effect on TBE.

***H8: In a retail facility, the higher the transaction-specific satisfaction of the customers is, the higher the transaction-specific brand equity is for that retailer.***

TSA has a positive but insignificant effect on TBE ( $\beta = 0.059, [-0.002 - 0.12], t = 1.95, p > 0.05$ ) all other variables being constant. For each unit increase in TSA, TBE increases by 5.90%. Inferring from the significance of the t statistic of 1.95 we will take a 5.10% risk in assuming that TSA has a significant effect on TBE which is greater than the level of significance of 5%. Furthermore, the effect size for the effect of TSA on TBE was 0.007, implying that TSA has no effect on TBE (Hair et al., 2019). We therefore conclude that TSA has a positive but insignificant effect on TBE.

***H9: In a retail facility, the higher the transaction-specific trust of the customers is, the higher the transaction-specific brand equity is for that retailer.***

At a 99% confidence interval, TST has a positive and significant effect on TBE ( $\beta = 0.242, [0.145 - 0.341], t = 4.853, p < 0.01$ ) all other variables are constant. For each unit increase in TST, TBE increases by 24.20%. Inferring from the significance of the t statistic of 4.853 we will be taking a 0.00% risk in assuming that TST has a significant effect on TBE which is lower than the level of significance of 5%. Furthermore, the effect size for the effect of TST on TBE is 0.058, which implies that TST has a small effect on TBE (Hair et al., 2019). Therefore, we conclude that TST has a positive and significant effect on TBE.

***H10: In a retail facility, the higher the transaction-specific brand performance offered to customers, the higher the transaction-specific brand equity is for that retailer.***

BP has a positive but insignificant effect on TBE ( $\beta = 0.056, [-0.017 - 0.123], t = 1.565, p > 0.05$ ) all other variables being constant. For each unit increase in BP, TBE increases by 5.60%. Inferring from the significance of the t statistic of 1.565 we will be taking a 11.80% risk in assuming that BP

has a significant effect on TBE which is greater than the level of significance of 5%. Furthermore, the effect size for the effect of BP on TBE is 0.005, which implies that BP does not influence TBE (Hair et al., 2019). Therefore, we conclude that BP has a positive but insignificant effect on TBE.

***H11: In a retail facility, the higher the transaction-specific associations perceived by customers, the higher the transaction-specific brand equity is for that retailer.***

TSA has a positive but insignificant effect on TBE ( $\beta = 0.059_{[-0.002 - 0.12]}$ ,  $t = 1.95$ ,  $p > 0.05$ ) all other variables being constant. For each unit increase in TSA, TBE increases by 5.90%. Inferring from the significance of the t statistic of 1.95 we will take a 5.10% risk in assuming that TSA has a significant effect on TBE which is greater than the level of significance of 5%. Furthermore, the effect size for the effect of TSA on TBE was 0.007, implying that TSA has no effect on TBE (Hair et al., 2019). We therefore conclude that TSA has a positive but insignificant effect on TBE.

***H12: In a retail facility, the higher the transaction-specific brand personalities perceived by the customers, the higher the transaction-specific brand equity is for that retailer.***

BP has a positive but insignificant effect on TBE ( $\beta = 0.056_{[-0.017 - 0.123]}$ ,  $t = 1.565$ ,  $p > 0.05$ ) all other variables being constant. For each unit increase in BP, TBE increases by 5.60%. Inferring from the significance of the t statistic of 1.565 we will be taking a 11.80% risk in assuming that BP has a significant effect on TBE which is greater than the level of significance of 5%. Furthermore, the effect size for the effect of BP on TBE is 0.005, which implies that BP does not influence TBE (Hair et al., 2019). Therefore, we conclude that BP has a positive but insignificant effect on TBE.

***H13: In a retail facility, the speedier, more convenient, enjoyable and secure a transaction experience is, the higher the transaction-specific brand equity is for that retailer.***

At a 99% confidence interval, TE has a positive and significant effect on TBE ( $\beta = 0.317_{[0.207 - 0.418]}$ ,  $t = 5.895$ ,  $p < 0.01$ ) all other variables are constant. For each unit increase in TE, TBE increases by 31.70%. Inferring from the significance of the t statistic of 5.895 we will be taking a 0.00% risk in assuming that TE has a significant effect on the TBE which is lower than the level of significance of 5%. Furthermore, the effect size for the effect of TE on TBE is 0.09, which implies that TE has a small effect on TBE (Hair et al., 2019). Therefore, we conclude that TE has a positive and significant effect on TBE.

### 6.6.3.2 Assessment of Moderating Effect of Age on the Relationship between TE and TST

This section investigates the moderation effect of age on transaction experience (TE) and transaction-specific trust (TST), as shown in Table 6.18.

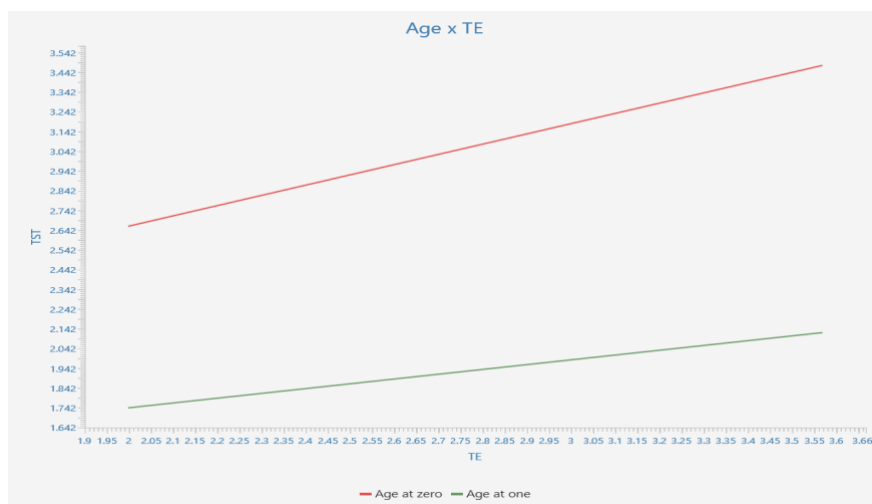
*H14: In a retail facility, the transaction-specific trust during transaction experience will be higher and much stronger among younger customers as compared to the elderly ones.*

Table 6.19: Assessment of Moderation Effect of Age

	Coeff	Std Err	T Stat	P values	F <sup>2</sup>	L95% BCa CI	U95% BCa CI
Age -> TST	-1.278	0.044	29.231	0.00	0.752	-1.363	-1.188
Age x TE -> TST	-0.237	0.054	4.374	0.00	0.027	-0.338	-0.127

Source: Survey data analysis in PLS

The hypothesis sought to ascertain the moderating role of age on the relationship between TE and TST. The results revealed that age moderates the relationship between TE and TST ( $B = -0.237, t = 4.374, p < .001$ ). Given that the moderation term is negative, this implies that the relationship between TE and TST is stronger for younger respondents than it is for older respondents as shown in the Figure 6. 15 below



### 6.6.3.3 Multi-group Analysis of Profession

This section explores the second moderator, profession. This analysis is based on the four professions that were mainly considered for the study: academics, students, retail workers/bus drivers, and office employees. This section shows the effect of this multi-group analysis between transaction experience

and transaction-specific brand equity. Table 6.21 presents the analysis for the effects of TE on TBE for different professional groups.

***H15: In a retail facility, the impact of transaction experience on transaction-specific brand equity will differ and depends highly on the profession of the individual customer.***

Table 6.20: Group Effects of TE to TBE

Professional Group	Std		T value	P value
	Coeff	Err		
Profession A	0.632	0.042	14.954	0
Profession B	0.462	0.078	5.895	0
Profession C	0.42	0.088	4.784	0
Profession D	0.546	0.076	7.236	0

Source: Survey data analysis in PLS

For Group A, which included academics and researchers, TE has a positive and significant effect on TBE, all other variables being equal. For every unit increase in TE, TBE is increased by 0.645 with a  $p < 0.01$ . Given that the p value is lower than the level of significance, it can be concluded that TE significantly affect TBE for profession group A.

For group B, which included young students, TE also has a positive and significant effect on TBE, all other variables being equal. For every unit increase in TE, TBE increases by 0.59,  $p < 0.01$ . Given that the p value is lower than the level of significance, it can be concluded that TE significantly affects TBE for profession group B.

For group C, which consists of retail staff and bus drivers, TE also has a positive and significant effect on TBE, all other variables being equal. For every unit increase in TE, TBE increases by 0.628,  $p < 0.01$ . Given that the p value is lower than the level of significance, it can be concluded that TE significantly affects TBE for profession group C.

Lastly, for group D, which consists of office employees, TE also has a positive and significant effect on TBE, all other variables being equal. For every unit increase in TE, TBE increases by 0.601,  $p < 0.01$ . Given that the p value is lower than the level of significance, it can be concluded that TE significantly affects TBE for profession group D.

Table 6.21: Group differences by Profession for TE to TBE

Group Differences	Coeff Diff	P value
<b>Difference (A - B)</b>	<b>0.17</b>	<b>0.044</b>
<b>Difference (A - C)</b>	<b>0.212</b>	<b>0.022</b>
Difference (A - D)	0.086	0.318
Difference (B - C)	0.042	0.714
Difference (B - D)	-0.084	0.436
Difference (C - D)	-0.127	0.271

Source: Survey data analysis in PLS

Furthermore, the PLS MGA test was used to compare group differences between different professions. It was used to test if there is any significant difference between different profession groups in the effect of TE on TBE (see Table 6.20). As seen in Table 6.20, there were significant differences between in the effect of TE on TBE for group A and B, and for group A and group C. The effect of TE on TBE is stronger for academics and researchers than it is for young students and retail staff and buss drivers. Given that at least two groups significantly differ from each other, we therefore validate our hypothesis which states that in a retail facility, the impact of transaction experience on transaction-specific brand equity will differ and depends highly on the profession of the individual customer.

### 6.6.3.4 Assessment of Mediating Effect

This section analyses the mediation effects. In the conceptual model, there are two mediators, namely, perceived reputation (PR) and brand personality (BP). Table 6.23 summarizes the specific indirect effects of the independent variables on the dependent variables through the mediation. To assess the mediation effect, the specific indirect effects must be known.

Table 6.23: Specific Indirect Effects

<b>Specific Indirect Effects</b>						
	<b>Coeff</b>	<b>Std Err</b>	<b>T Stat</b>	<b>P values</b>	<b>L95% BCa CI</b>	<b>U95% BCa CI</b>
TE -> TSS -> TBE	0	0.006	0.002	0.998	-0.012	0.011
TE -> TSP -> TBE	0.107	0.023	4.62	0	0.062	0.153
TE -> TST -> TBE	0.109	0.023	4.784	0	0.066	0.157
TE -> TSA -> BP -> TBE	0.004	0.003	1.352	0.176	-0.001	0.01
TE -> TSS -> PR	0.024	0.012	2.054	0.04	0.006	0.044
TE -> TSS -> PR -> TBE	0.002	0.002	0.898	0.369	-0.001	0.006
TSS -> PR -> TBE	0.01	0.009	1.127	0.26	-0.005	0.031
TSA -> BP -> TBE	0.013	0.009	1.466	0.143	-0.003	0.032

TE -> TSA -> TBE	0.016	0.009	1.828	0.068	0	0.036
TE -> TSA -> BP	0.063	0.017	3.76	0	0.032	0.097

Source: Survey data analysis in PLS

For mediation to occur, there must be a significant indirect effect and a significant total effect of the independent variable on the dependent variable. From the table, four specific indirect effects are significant: the effect of TE on TBE through TSP ( $\beta = 0.11_{[0.062 - 0.153]}^{**}$ ), the effect of TE on TBE through TST ( $\beta = 0.11_{[0.066 - 0.157]}^{**}$ ), the effect of TE on PR through TSS ( $\beta = 0.02_{[0.006 - 0.044]}^*$ ), and the effect of TE on BP through TSA ( $\beta = 0.06_{[0.032 - 0.097]}^{**}$ ).

Table 6.22: Total Effects of Mediated Paths

Assessment of Total Effects						
	Coeff	Std Err	T Stat	P values	L95% BCa CI	U95% BCa CI
TE -> PR	0.024	0.012	2.054	0.04	0.006	0.044
TE -> BP	0.063	0.017	3.76	0	0.032	0.097
TE -> TBE	0.555	0.04	13.935	0	0.471	0.628
TSS -> PR	0.151	0.046	3.276	0.001	0.041	0.219
TSS -> TBE	0.01	0.033	0.317	0.751	-0.057	0.069
TST -> TBE	0.242	0.05	4.853	0	0.145	0.341
TSP -> TBE	0.191	0.042	4.582	0	0.109	0.271
TSA -> BP	0.23	0.046	4.993	0	0.133	0.316
TSA -> TBE	0.072	0.03	2.425	0.015	0.013	0.131
PR -> TBE	0.069	0.05	1.379	0.168	-0.028	0.168
BP -> TBE	0.056	0.036	1.565	0.118	-0.017	0.123

Source: Survey data analysis in PLS

To finally assess the mediation effect, three types of effects must be compared. When the direct effect is significant, the specific indirect effect is also significant as well as the total effect. Thus, it is said that there is a partial mediation effect. When the direct effect is not significant, and the specific indirect effect and total effects are significant, it is said that a total mediation has occurred. When the specific indirect effect is insignificant, irrespective of the significance of the direct and total effect, then it is said that there is no mediation effect. Table 6.24 presents the assessment of the mediation effect.

Table 6.23: Assessment of Mediation Effect

Assessment of Mediation Effect				
	Direct Effect	Indirect Effect	Total Effect	Mediation Type
TE -> TSS -> TBE	0.32** <sub>[0.207 - 0.418]</sub>	0.00 <sub>[-0.012 - 0.011]</sub>	0.56** <sub>[0.471 - 0.628]</sub>	No Mediation
TE -> TSP -> TBE	0.32** <sub>[0.207 - 0.418]</sub>	0.11** <sub>[0.062 - 0.153]</sub>	0.56** <sub>[0.471 - 0.628]</sub>	Partial mediation
TE -> TST -> TBE	0.32** <sub>[0.207 - 0.418]</sub>	0.11** <sub>[0.066 - 0.157]</sub>	0.56** <sub>[0.471 - 0.628]</sub>	Partial mediation
TE -> TSA -> BP -> TBE	0.32** <sub>[0.207 - 0.418]</sub>	0.00 <sub>[-0.001 - 0.01]</sub>	0.56** <sub>[0.471 - 0.628]</sub>	No Mediation
TE -> TSS -> PR		0.02* <sub>[0.006 - 0.044]</sub>	0.02* <sub>[0.006 - 0.044]</sub>	Full mediation
TE -> TSS -> PR -> TBE	0.32** <sub>[0.207 - 0.418]</sub>	0.00 <sub>[-0.001 - 0.006]</sub>	0.56** <sub>[0.471 - 0.628]</sub>	No Mediation
TSS -> PR -> TBE	0.00 <sub>[-0.066 - 0.062]</sub>	0.01 <sub>[-0.005 - 0.031]</sub>	0.01 <sub>[-0.057 - 0.069]</sub>	No Mediation
TSA -> BP -> TBE	0.06 <sub>[-0.002 - 0.12]</sub>	0.01 <sub>[-0.003 - 0.032]</sub>	0.07* <sub>[0.013 - 0.131]</sub>	No Mediation
TE -> TSA -> TBE	0.32** <sub>[0.207 - 0.418]</sub>	0.02 <sub>[0 - 0.036]</sub>	0.56** <sub>[0.471 - 0.628]</sub>	No Mediation
TE -> TSA -> BP		0.06** <sub>[0.032 - 0.097]</sub>	0.06** <sub>[0.032 - 0.097]</sub>	Full mediation

Source: Survey data analysis in PLS

The direct effect of TSS on TBE is not significant ( $\beta = 0.00_{[-0.066 - 0.062]}$ ). Therefore, when TSS increases, TBE reduces but not in a significant proportion. When the mediating variable (PR) was added to the equation, the indirect effect of TSS on TBE remained insignificant ( $\beta = 0.01_{[-0.005 - 0.031]}$ ). By examining the total effect of TSS on TBE, it could be inferred that the total effect of TSS on TBE through the mediator BP is also not significant ( $\beta = 0.01_{[-0.057 - 0.069]}$ ). Therefore, the study failed to reject the null hypothesis (PR is not a significant mediator to the relationship between TSS and TBE). The risk of rejecting the null hypothesis while it is true is greater than the level of significance of 0.05. Therefore, it can be concluded that-

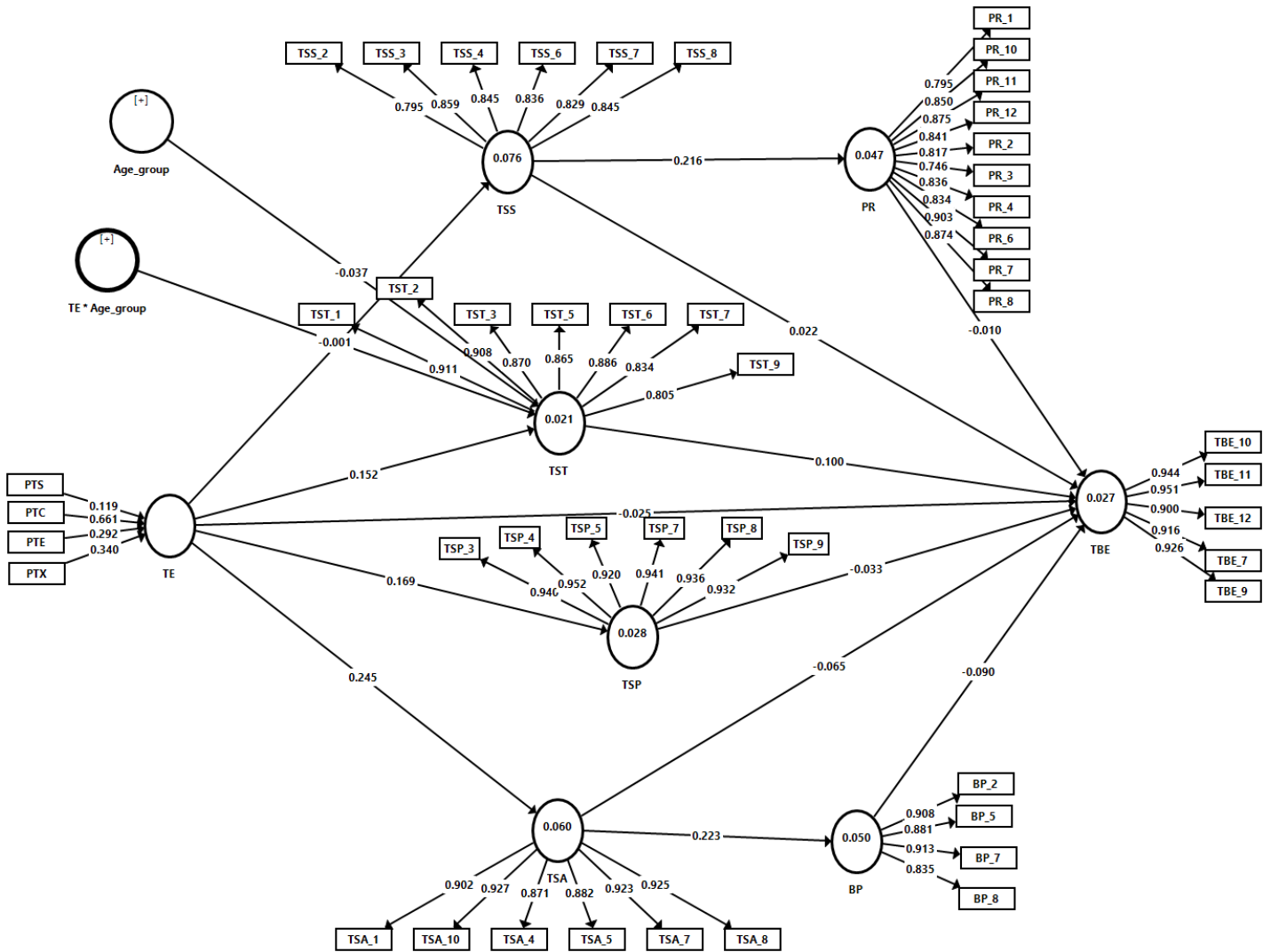
**PR does not significantly mediate the relationship between TSS and TBE.**

The direct effect of TSA on TBE is not significant ( $\beta = 0.06_{[-0.002 - 0.12]}$ ). Therefore, when TSA increases, TBE decreases but not in a significant proportion. When the mediating variable (BP) was added to the equation, the indirect effect of TSA on TBE remained insignificant ( $\beta = 0.01_{[-0.003 - 0.032]}$ ). By examining the total effect of TSA on TBE, it is also inferred that the total effect of TSA on TBE through the mediator BP is significant ( $\beta = 0.07^*_{[0.013 - 0.131]}$ ). Therefore, the study failed to reject the null hypothesis (BP is not a significant mediator to the relationship between TSA and TBE). The risk of rejecting the null hypothesis while it is true is greater than the level of

significance of 0.05. Therefore, it is evident that BP is not a significant mediator to the relationship between TSS and TBE. Hence, it can be concluded that-

**BP does not significantly mediate the relationship between TSA and TBE.**

Figure 6.18: Structural Model Assessment



Source: Survey data analysed in Smart PLS 3.3.5



## 6.7 SUMMARY

This chapter presented the data analysis using various statistical techniques, such as missing data analysis, normality, outliers, linearity, multi-collinearity, homoscedasticity, homogeneity, factor analysis, and structural models. These techniques helped to refine the data, perform reliability and validity tests, and finally, examine the hypotheses using SPSS 21.0 and Smart PLS 3.3.5. For CFA, reliability and validity tests were performed, including composite reliability, convergent validity, discriminant validity, and nomological validity. The analysis determined no difference between the eigenvalues and the scree plot. Based on the EFA and CFA results, only one item was deleted. CFA produced good values for composite reliability, convergent validity, and discriminant validity, while nomological validity also showed an adequate model fit, and there was no issue of discriminant validity in the data.

Owing to the multi-group data, the configural invariance and metric invariance were tested. The final phase was to examine the structural model or hypotheses. The results showed that there was an adequate model fit. The second stage was to assess the hypotheses, including the direct hypotheses, moderators, and mediators. The results showed that most of the direct hypotheses were supported. Hypotheses H1, H2, H3, H4, H5, H6, H9 and H13 showed a positive and significant effect, while H7, H8, H10, H11 and H12 showed a positive but insignificant effect. In addition, the moderators H14 and H15 were fully supported by the empirical studies. Hence, it is evident that 67% of the hypotheses were supported. The next chapter discusses and compares the results of the qualitative and quantitative analysis.

# Chapter 7: DISCUSSION

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## 7.1 INTRODUCTION

This chapter discusses, compares, and justifies the findings of the qualitative and quantitative research and how they reflect the findings in the existing literature. The discussions are presented in the light of both qualitative and quantitative analysis, presented in chapter 5 and chapter 6 respectively. Each of the hypothesis are discussed and analysed firstly, in the light of literature review, followed by the qualitative and then quantitative findings. The hypotheses which are not empirically supported, are explained and justified with the qualitative findings. Therefore, it is beneficial to conduct a mix method study. This chapter is divided into five sections and starts with an introduction in section 7.1. Section 7.2 outlines the overview of the thesis. Section 7.3 presents a discussion on the focal construct (transaction experience), while section 7.4 discusses the outcomes on the overall hypotheses, explaining the hypotheses tests. Section 7.5 concludes the chapter with a summary.

## 7.2. OVERVIEW OF STUDY

The purpose of this thesis is to investigate the concept of transaction experience, define and measure the construct, and explore the transaction-specific outcomes from transaction experience. It also examined the impact of transaction experience on transaction-specific brand equity. In addition, the thesis further analysed the role of consumer demographics (such as age and profession) and their effects. Finally, it explored the effects of other transaction-specific constructs on each other, i.e., the effect of transaction experience on transaction-specific satisfaction, the effect of transaction experience on transaction-specific trust, the effect of transaction experience on transaction-specific performance, the effect of transaction experience on transaction-specific associations, the effect of transaction-specific satisfaction on perceived reputation, the effect of transaction-specific associations on brand personality, and their overall effect on transaction-specific brand equity.

This was a significant study, as it explored and analysed the data, and closed several gaps in the literature. Firstly, the most significant gap in the literature was to design and measure transaction experience as according to several authors (Bagdare and Jain, 2017; Chalil et al., 2020; Gupta and Kim, 2007; Jain et al., 2017, Purnama et al., 2021; Witell et al., 2020), there has been no empirical enquiry on the definition and measurement of the construct. Secondly, the relationship between the transaction experience, its qualities, and its consequences is not well established in the literature as

claimed by many authors (Dennis et al., 2014; Foroudi et al., 2018; Kursan Milaković, 2021; Manhas and Chauhan, 2017; Mandler et al., 2021; Manthiou et al., 2020; Ngo and O'Cass, 2013).

Thirdly, there has been no systematic study in the marketing literature that has looked at the relationship between transactional experience and consumer assessments (Dennis et al., 2014; Hoyer et al., 2020; Manthiou et al., 2020; Witell et al., 2020; Zhang et al., 2010). Fourthly, there is a scarcity of explanatory models and theory-building enquiries in the domain of transaction experience (Bagdare and Jain, 2017; Chalil et al., 2020; Jain et al., 2017; Kolotylo-Kulkarni et al., 2021; Peifer and Tan, 2020; Rivard, 2020; Rifi and Mostafa, 2021). Fifthly, the studies showing the impact of customer experience on brand equity (Biedenbach and Marell, 2010; Bill Xu and Chan, 2010; Ou et al., 2020; Pina and Dias, 2021; Rifi and Mostafa, 2021; Rizwan et al., 2021; Slaton et al., 2020) have not yet been tested and validated in the transaction-specific context. And finally, the influence of demographic factors on transaction experience or transaction-specific outcomes has never been studied before.

These gaps in the literature raised a number of questions, such as What is transaction experience? How should transaction experience be defined and measured? What are the transaction-specific outcomes? How should the transaction-specific constructs be defined and measured? Does transaction experience have a positive relationship with transaction-specific satisfaction, transaction-specific trust, transaction-specific performance, and transaction-specific associations? Do these transaction-specific outcomes have a positive effect on transaction-specific brand equity? Does transaction experience have a positive impact on transaction-specific brand equity? To answer these questions, a mixed-methods research design, i.e., a qualitative research method in conjunction with a predominantly quantitative research method, was implemented (Creswell, 2003; Deshpande, 1983). In order to develop a scale for the constructs, the concepts were first explored in the current literature. Next, to generate additional items, a sequential approach using a qualitative research method as a first stage was used.

The qualitative method was appropriate and inevitable, as there was a lack of understanding on the topic; the concepts of transaction experience and transaction specific outcomes are vague in the literature with no definitions and measures. There was no existing scale available on the constructs being studied. Previous studies on customer experience and its effects and the outcomes' effects on other constructs had received only preliminary inquiry, and hence, these were used to develop scales for transaction-specific constructs and to generate additional measures for the questionnaire (Deshpande, 1983). Nine interviews and four focus groups were conducted with academics, senior

managers, retail employees, and consumers. The next step was to undertake face validity and content validity with a group of academics.

The results of the qualitative study gave a deeper insight into the definitions and measures of transaction experience and transaction-specific outcomes. The scales were revised to take account of the qualitative findings. After the qualitative analysis, the conceptual framework was revised with the addition and deletion of constructs. Apart from the additions to and deletions from the previously designed conceptual model following the pre-qualitative analysis of the data, the names of some constructs were revised and changed to suit the model and represent it even better. Moreover, some changes were made in the relationships of sets of constructs, and thus some of the hypotheses were revised accordingly. Thus, the model was redesigned and it incorporated the moderation and mediation effects that were evident in the qualitative study.

As stated before, transaction experience did not have any valid measures; it was initially measured through other variables (perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment) in a formative manner. However, interestingly, after the qualitative study, evidence of another variable, namely, transaction-specific security, was found when measuring the construct, though this had been missed initially by the researcher while developing the scales. Hence, afterwards, it was added as a measure of transaction experience. Some of the constructs, such as brand personality and perceived reputation, were re-named following the qualitative study. Previously, these were named as transaction-specific brand personality and transaction-specific reputation. In addition to these changes, some of the hypotheses were nullified, and new hypotheses were added. Also, the construct perceived value was deleted from the revised model. All details are discussed in Chapter 5.

In the second phase of the study, a quantitative study was undertaken based on the literature and on the revised model from the qualitative study. The quantitative method was used to examine and analyse the relationships between the different constructs and to improve the validity, reliability, and generalisability of the research (Deshpande, 1983; Zinkhan and Hirschheim, 1992). A self-administered survey was developed and distributed to more than 500 consumers based in London in order to examine transaction experience and its impact on transaction-specific brand equity. For the quantitative analysis, data were gathered through structured questionnaires that used a Likert scale. A total of 550 questionnaires were completed and returned to the researcher from which 500 complete questionnaires were selected for the purpose of quantitative analysis. To ascertain the validity and

reliability of the research instruments, a normality test was carried out. Normality for this study was assessed using normal P-P plots along with the Kolmogorov Smirnov test. Based on the graphical assessment, several variables showed a moderate to high degree of departure from normality, as displayed on the P-P plots.

The results for normality for this study showed that the data were not normally distributed. All the associated p values were lower than 0.05 showing that the variables did not follow a normal distribution. As a result, the PLS-SEM was preferred because it does not make assumptions about the distribution of the data. However, before running the SEM analysis, the variables were standardized in order to minimize the deviations, and they were then used for the SEM analysis. The other method used to examine normality was Jarque-Bera, which uses skewness and kurtosis; the results showed that a number of constructs and variables were within the satisfactory criteria with the norms of skewness, while others exhibited negative or positive skewness. Lastly, kurtosis was employed to test for normality, and the results showed that a number of constructs and variables were satisfactory.

Another pre-test carried out in the study was the testing for outliers. Specifically, the researcher identified univariate outliers by converting all scores for a variable to standard scores, then grouping items together to represent a single construct. Next, the Grubbs' test was employed. According to the test, only transaction experience had a significant outlier. The other latent constructs had no outliers, as their p values were all greater than the level of significance of 0.05. Furthermore, the linearity and multi-collinearity were also used to ensure the suitability of the data for the study. This study applied the 2-tailed Pearson's correlation at the 0.01 significance level to determine the linearity and multi-collinearity between the independent and dependent variables.

Results indicated that all variables were linear with each other. In addition, the results from the bivariate correlation were computed to examine the multi-collinearity between the variables and indicated that there was no multi-collinearity between the variables. The variance inflation factor and tolerance effect were also examined, and all three basic assumptions were met, thereby enabling the variables to be retained for further analysis of their collinearities. Finally, the researcher tested for the homogeneity of variances by employing the Levene's test to assess whether the variances of metric variables were equal across the non-metric variables, i.e., age, gender, and profession. The results indicated that the Levene's test was both significant and insignificant since the p values were lower and higher than the significance level and likewise, variances were found to be different and not different.

The non-response bias was also analysed in the study since it is a common phenomenon in survey research. For this, the researcher reassured the respondents that data collected would be used strictly for academic purposes and would be treated with the utmost confidentiality. In addition to this, the Mann-Whitney U-test was also used. To carry out this test, the first 250 observations were taken as early respondents and the last 250 were taken as late respondents. After analysis, response bias was noticed in PTS, PTE, TE, TSS, and TSA with p values of 0.005, 0.002, 0, 0, and 0.047 respectively. The other variables did not suffer from any significant non-response bias since their p values were greater than the 0.05 level of significance.

After assessing for the validity and reliability of latent variables, the latent variable scores were computed using Smart PLS 3.3.5. Only items that were reliable were included in the computation of the latent variable scores. The data were coded using a 7-point Likert scale with 1 (strongly disagree) to 7 (strongly agree) making an average of 4. A mean of 4 depicts a neutral point where respondents neither agree nor disagree with the construct. As observed in Chapter 6 (Table 6.7), the smallest value for the mean was 5.036 (TBE), which means that on average, respondents had a positive opinion about the constructs under study. The responses ranged between 1 to 7. The correlations of the latent variables were calculated following the Pearson's Product Moment Correlations.

The empirical results from the quantitative study showed that a strong and positive relationship existed between transaction experience and transaction-specific satisfaction at a 1% significance level, while the relationship between transaction experience and transaction-specific trust was significant at 5%. The relationship between transaction experience and transaction-specific performance was significant at 1%, whereas transaction experience and transaction-specific associations were noted to be positive and significant. In addition, a positive and significant relationship between transaction experience and perceived reputation, and transaction experience and brand personality were also evident. However, there was no significant relationship between transaction experience and transaction-specific brand equity as per the empirical study.

On the other hand, it was noted that transaction-specific satisfaction and transaction-specific association were not significantly related to transaction-specific brand equity. However, transaction-specific associations, perceived reputation, and brand personality had a positive and significant relationship with transaction-specific brand equity. Meanwhile, transaction-specific trust had a positive and significant effect on transaction-specific brand equity. To identify underlying variables or factors that describe the pattern of association between a set of observed variables, two types of factor

analysis were considered: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The exploratory factor analysis (EFA) was used to take the data in a group, after which the confirmatory factor analysis (CFA) was applied to confirm the group of measurement variables related to a factor for testing the hypotheses. Exploratory factor analysis was carried out using SPSS version 26.

Among the numerous procedures which can be chosen for factor extraction and rotation in SPSS 26, principal component analysis (PCA), Kaiser-Meyer-Olkin (KMO), scree plot, and finally, sorted-by-size were chosen for this study. The KMO measure of sampling adequacy was a highly recommended factor analysis for this study since all the values were found to be higher than 0.70. As recommended by other researchers, the communalities were also analysed where just a single item was eliminated given that its communality was lower than 0.5. The researcher went further to look at the eigenvalues, where it was found that the extracted factors explain 79.9% of variations in the latent constructs. The scree plot analysis also suggested that there was no significant difference between the eigenvalues and the scree plot.

After extracting the factors, a rotated loading matrix was used in this research to determine the number of variables that load on each factor. From the results, no variables needed to be deleted owing to their low value. The analysis suggested that transaction experience was a higher order construct with four lower order constructs, i.e., PTS, PTC, PTE, and PTX. Further, analysis in CFA was done based on the higher order construct's requirements. As a further aspect of the rotation matrix, some researchers (Hair et al., 2006; Tabachnick and Fidell, 2007; Foroudi, 2013; Malhotra, 2010) have also suggested deleting variables which are highly correlated with more than one factor.

However, none of the variables in this study were found with high loadings on two factors. This study made use of the most common rotation method known as the orthogonal rotation method, also known as the varimax procedure, which is an orthogonal method of rotation that minimises the number of variables with high loadings on a factor, thereby enhancing the interpretability of the factors (Malhotra, 2010; Tabachnick and Fidell, 2007; Trendafilov and Gallo, 2021). Thus, the researcher deleted only one item from this study based on exploratory factor analysis.

The study followed a two-step approach, reflective and formative, to analyse the structural equation model. For the first part of the model, transaction experience is a formative variable and measured through perceived transaction speed, perceived transaction convenience, perceived transaction

enjoyment, and perceived transaction security and thus is formative. On the other hand, the rest of the model is reflective as in most of the business and marketing studies. This was a major challenge during analysis, as the model became complex, and hence, instead of CB-SEM, PLS-SEM was chosen, since PLS-SEM can account for both reflective and formative variables at the same time. Based on the results of the measurement model, it was found that each construct had an acceptable Cronbach's alpha, composite reliability, AVE, and discriminant validity. It was also shown that the measurement model had an adequate model fit.

Finally, the structural model was examined. The first stage was to assess the model fit. The results showed an adequate model fit. The second stage was to assess the hypotheses, for both direct and multi-group hypotheses. According to the results, most of the direct hypotheses were supported, while most of the multi-group hypotheses were rejected. Hypotheses H1, H2, H3, H4, H5, H6, H9 and H13 showed a positive and significant effect, while H7, H8, H10, H11 and H12 showed a positive but insignificant effect. In addition, the moderators H14 and H15 were fully supported by the empirical studies. Hence, it is evident that 67% hypotheses were supported. However, the hypotheses that are not supported in the empirical study, can be supported strongly from strong evidence in the literature and in the qualitative study.

### **7.3. TRANSACTION EXPERIENCE (THE FOCAL CONSTRUCT)**

As mentioned previously, transaction experience has been studied previously by few researchers, and the concept in the existing literature is vague. A number of authors who have studied transaction experience (Bhattacharjee, 2001; Festinger, 1957; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Kahneman et al., 1986) merely shed light on the concept, but they have neither defined nor measured transaction experience. Although few researchers (Bhattacharjee, 2001; Bitner and Hubbert, 1994; Burton et al., 2020; Danaher and Mattsson, 1994; Johnston 1995; Gupta and Kim, 2007; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Ling, et al., 2010; Tom Dieck et al., 2021; Wu and Wang, 2005; Zaner et al., 2012) in the past have studied the concept of transaction experience, valid and reliable measures of transaction experience for this study could not be found in the existing literature.

During and after the pandemic, the concept of transaction experience has become one of the major concerns for retailers, whereas, social distancing and the 'touch' factor became the main concerning issue, especially at the checkout (Allam, 2020; The Financial Times, 2020). Hence, it was essential to study this construct. The literature that existed regarding transaction experience was explored, and the



concept of customer experience with regard to transaction experience is defined in this study as a set of transaction-specific interactions between a customer and the product/service provider (Gentile et al., 2007; Hoch, 2002; Kerin et al., 1992; Meyer and Schwager, 2007; Terblanche and Boshoff, 2002) that provoke a reaction (Gentile et al., 2007) involving cognitive, affective, emotional, social (Bolton et al., 2014; Brakus et al., 2009; Gentile et al., 2007; Meyer and Schwager, 2007; Shilpa and Rajnis, 2013), behavioural, and physical (Bolton et al., 2014; Meyer and Schwager, 2007; Pine and Gilmore, 1998; Shilpa and Rajnis, 2013) responses evoked by transaction-related stimuli such as enjoyment, ease, and speed of transaction (Brakus et al., 2009).

This concept was further probed during the qualitative study. Using the qualitative approach of data collection and analysis to establish the concept of transaction experience, all the participants were asked to give their opinion regarding transaction experience. Almost all of them (99%) came up with two perceptions of transaction experience which were common to all. The first was that transaction experience is a part of the overall customer experience, and the second was that transaction experience is the experience starting from when customers queue up at the checkout until they have paid, finished the transaction, and left the checkout. Some of the responses that helped in defining the focal construct of transaction experience were as follows.

*If you try to differentiate these two, transaction experience would be while they are paying, how they're paying, and the experience they get. (SH, Brand Manager, SSP)*

*Transaction experience is like when a person is going to make a transaction how quickly they make the transaction and how confident they feel making the transaction and how quick is the response. From the time you queue up to the time you say goodbye, this whole experience is transaction. In our company, the transaction experience is 3-4 minutes! (MS, Business Manager, McDonald's)*

*Transaction experience is a part of customer experience. It is when (customers are) waiting in the queue and paying. (FG-D, Office Workers)*

*It's basically the entire experience that comes from the process when the transaction goes through..... The whole customer experience is built up with so many experiences, and transaction experience is just a part of it..... It is linked. Transaction is a part of customer service experience. (FG-A, Academics)*

*It is the whole process of transaction. So, the customer experience is the whole thing. The moment you ask to purchase something, to the purchase, and to the end of it, and to what happens next after. While the transaction experience is when you actually pay for something. Just that moment.* (FG-B, MBA Students)

In the quantitative study, transaction experience was measured as a formative variable and through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security and thus is formative in nature. Therefore, it was necessary to assess the validity and reliability of the lower order constructs before using their latent variable scores to assess the validity and reliability of the higher order construct. The validity and reliability of the formative constructs was measured through three metrics: outer weights, outer loadings and VIF.

From the measurements, two items (PTS and PTE) had outer weight greater than 0.05. However, all outer loadings were significant, and all the VIFs were lower than 3. Therefore, these items can be considered as significant measurements of the formative construct transaction experience. A partial least squares (PLS) structural equation model was chosen to test the hypotheses of this study (Hair Jr et al., 2021). This method was chosen because the variables showed no normal distribution. As the values were not normally distributed, non-parametric tests were used for all statistical analyses. In addition, PLS was also used for analysis because the conceptual model has both formative and reflective variables to be measured at the same time, and PLS is recommended for such complex models (Hair Jr et al., 2021). Details on the measures of transaction experience are given in Section 7.4.1.

## **7.4. DISCUSSION OF THE HYPOTHESES TESTS**

This section presents the discussion of the main findings incorporated into the research questions. The research questions for this study are as follows.

1. What is the aftermath of a positive transaction experience? *What is the definition of transaction experience? How should transaction experience be measured? What is the transaction-specific outcomes? How should the transaction-specific outcomes be defined and measured?*
2. How does transaction experience affect transaction-specific brand equity? *Does transaction experience have a positive impact on transaction-specific brand equity? Does transaction-specific satisfaction have a positive impact on transaction-specific brand equity? Does transaction-specific*

*trust have a positive impact on transaction-specific brand equity? Does transaction-specific performance have a positive impact on transaction-specific brand equity? Do transaction-specific associations have a positive impact on transaction-specific brand equity? Does perceived reputation have a positive impact on transaction-specific brand equity? Does brand personality have a positive impact on transaction-specific brand equity?*

This section answers the above-mentioned questions considering the findings from both the qualitative and quantitative study. In addition, these findings were combined with the previous literature and the results of this study are explained in conjunction with the existing literature. It is divided into five subsections for discussion purposes so that it is convenient for readers. The first part discusses the transaction experience and its measures; the second part discusses the outcomes of transaction experience, the third part discusses the impact of transaction experience on transaction-specific brand equity, and the fourth- and fifth-parts present discussion on the moderators and mediators respectively.

The findings of this study align with previous research on the relationship between transaction experience and transaction-specific brand equity in a retail setting. The study's finding that transaction experience has a positive and significant effect on transaction-specific brand equity supports the findings of previous studies such as by Kim and Laverie (2016) and Paraskevas and Yaprak (2007) which found that a positive store environment leads to positive emotions and higher purchase intentions, and that service quality, satisfaction, and image all had a positive impact on behavioral intentions in the retail banking sector, which would also contribute to higher transaction-specific brand equity.

Furthermore, the study's findings align with the findings of Lee and Kim (2011) that perceived value plays a critical role in the relationship between retail store attributes and behavioral intentions. The study's research findings that transaction experience has a positive and significant effect on transaction-specific brand equity emphasizes the importance of providing a positive transaction experience for customers to build and maintain a strong transaction-specific brand equity.

#### **7.4.1. Appraisal of Transaction Experience Measures**

The few authors who have studied transaction experience (Bhattacharjee, 2001; Festinger, 1957; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Kahneman et al., 1986) have merely shed light on the concept; but they neither define nor measure transaction experience. Hence, no valid and relevant measures of transaction experience for this study could be found in the existing literature.

Therefore, as evident from the conceptual framework (Figure 3.1), transaction experience (the focal construct) has been studied as a second order variable and is designed to be a formative variable. It is thus measured through perceived transaction speed, perceived transaction convenience, and perceived transaction enjoyment, which makes up the entire journey of a customer's transaction experience. However, after the qualitative study, another variable, which was missed during the literature review, was included to measure transaction experience, namely, perceived transaction enjoyment. Therefore, perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security were the basis for measuring transaction experience.

From the existing literature, perceived transaction speed seemed to be a potential measure for transaction experience (Akkucuk and Teuman, 2016; Chen, 2008, Jonker, 2007; Chen and Li, 2017; Chebat and Filiatrault, 1993; Huq and Farin, 2017; Katz et al., 1991; Lee, 2009; Li et al., 2009; Liang and Huang, 1998; Nguyen et al., 2018; Zarm pou et al., 2012). This was further confirmed by the qualitative study. A few observations by the respondents are presented below.

*Speed is important. It helps to move the queue faster and makes our queue management more efficient and productive. More customers could be served per till, and that means we are able to save the number of staff we need in total. (ME, Commercial Manager, M&S)*

*Quick transaction is important. Because of the place where our business is set up, people just come and go. They don't have that much time. They want to come [and] grab their coffee; they don't want to wait a long time to come and give £20 and wait for change, don't have change, go downstairs, and bring the change. (SR, Store Manager, Costa Coffee)*

Perceived transaction convenience was another variable for measuring transaction experience as per the literature. According to many authors (Akkucuk and Teuman, 2016; Chen, 2008; Berry, 2002; Chen and Li, 2017; Gefen et al., 2003; Mahapatra, 2017; Teo et al., 2015; Torkzadeh et al., 2002), convenience is one of the most important factors influencing customers' purchase decisions. Again, this was confirmed by the qualitative study. A couple of observations by the respondents are presented below-

*Contactless is convenient of course. As I was saying, they don't need to worry how much money they have in their Oyster card or even if it is running low. They do not have to waste time in*

*the ticketing machine to top it up; just use contactless and go! It is very convenient ... You can travel faster and hassle free with a peace of mind. No wonder we are promoting contactless travel so much. (SB, Station Supervisor, TfL)*

*You don't have to carry money; you don't have to count money. It's a very easy access for shopping especially with family and children. (FG-A, Academics)*

The third variable that was used to measure transaction experience was perceived transaction enjoyment. Frow and Payne (2007) proposed that rationale, cognitive processing, and emotional effective processing, such as enjoyment, form part of the experience formation, and many authors support the idea of measuring transaction experience through perceived transaction enjoyment (Bagozzi, 1992; Cohen and Areni, 1991; Lazarus, 1991; Moghavvemi et al., 2018; Mehrabian and Russell, 1974; Oliver, 1997; Zhou and Feng, 2017). The qualitative study confirmed further this measure. Several observations by the respondents are presented below.

*I think that for my customers, when they are in hurry, they've got one minute, and they make it within that one minute - that brings them happiness. (SH, Brand Manager, SSP)*

*I think the best part is the time that it takes, which is very much less. And the system we have in our store takes maximum 20 seconds. So that makes everyone happy including us. (ZS, Retail Manager, Boots)*

The next measure for transaction experience was perceived transaction security. As mentioned above, this variable was missed by the researcher while undertaking the literature review. However, during the qualitative study, this variable turned out to be a very important factor to consider while measuring transaction experience, and hence, as mentioned previously, the researcher returned to the literature and found this to be true and found a significant amount of evidence (Arpaci et al., 2015; Cotteleer et al., 2007; Flavián and Guinalú, 2006; Herzberg, 2003; Linck et al., 2006; Peha and Khamitov, 2004, Salisbury et al., 2001; Stroborn et al., 2004, Tsiakis and Sthephanides, 2005) to support this variable as a measure of transaction experience. The qualitative study confirmed this measure of transaction experience very strongly. Some of the observations by the respondents are presented below.

*If I put myself in the customer's shoes, the first thing I need to see is, is it more reliable? if the data will be safe or will it be everywhere? If it is safe, how reliable the company is, how fast*

*the transaction is, and am I getting the receipt for only the card transaction or am I getting the receipt for the whole transaction? When I have the receipt for everything, the whole transaction would take less than what it takes for a normal card payment. (JA, Marketing Manager, Coffee Republic)*

*..if the transaction was secure. Like, if you have stuff stolen from your card, is it secure? Especially if using contactless. I don't know if you ever have been to the US; it is easier in there to get card details stolen with contactless than it is in here. They have advanced stuff with thieves and stuff. So that is one major thing to consider especially when it comes to money and payments; Security is the major thing for me. (FG-B, MBA Students)*

Therefore, after the qualitative study, the four measures for transaction experience were established. Although these measures of transaction were not hypothesised due to the nature of the study/model and the way transaction experience is measured, there were certain implications of these variables through which transaction experience is measured in the quantitative study. During the quantitative analysis, the focal construct, transaction experience, was measured as a higher order construct and in a formative manner through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security, which are the lower order constructs in this model. Thus, transaction experience was treated as a formative variable.

The testing of the measurement model was carried out using the Smart PLS 3.3.5 to identify the causal associations between the observed items (variables) and the latent (unobserved) construct. In order to be able to measure the validity and reliability of the higher order construct (TE), the validity and reliability of the lower order constructs (PTS, PTC, PTE, and PTX) had to be assessed first, and hence, these measures had important implications on the overall model being tested.

During the quantitative study, the first part of evaluating the model was the measurement model using confirmatory factor analysis (CFA). CFA helps to evaluate the reliability and validity and specifies which variables define the construct (Manley et al., 2020). It further confirms if the number of factors and the loadings of variables on them match what is expected based on the literature and the qualitative study (Gupta et al., 2021; Malhotra, 2010, p. 725). Hence, in testing the hypotheses, it helps to assess whether relationship exists between variables and their latent constructs, and it helps in removing items that do not cluster with other items (Malhotra, 2010).

The measurement model was assessed using four criteria, namely, indicator reliability, convergent reliability, composite reliability, and discriminant validity (Hair et al., 2016). Indicator reliability was tested using the indicator loading, Cronbach's alpha, and Rho\_A. The first assessment of the measurement model was the reliability test. Measurement of reliability was used at both the item level and the construct level. Reliability at the item level assessed the internal consistency of the measuring of observed items in order to represent a latent construct and ignored additional dimensions that occurred by factor analysis due to the 'refuse' items. Cronbach's alpha was used to assess the internal consistency of the items, which is a measure of internal consistency reliability. In this study, a minimum threshold criterion of over 0.6 was used as a standard (DeVellis, 2003; Hair et al., 2006; Hair Jr et al.; 2021; Manley et al., 2020; Tabachnick and Fidell, 2007).

Together with Cronbach's alpha, composite reliability was also used to assess the reliability of the construct. Composite reliability was tested using Rho\_C (Uijterwaal, 2021). According to Raykov (1997) and Tenenhaus et al. (2005), the coefficient of Rho\_C should be greater than or equal to 0.7. All composite reliability scores exceeded the standard coefficient of 0.7 which indicated an excellent score on composite reliability.

The validity method used here was that of discriminant validity. The Fornell Lacker criterion was used to assess the degree of communal variance between the latent variables of the model (Ab Hamid et al., 2017). According to the model, the square of the shared variance should be greater than the variance shared with any other latent variable in the model. Results indicated that all the squared variances for each construct were greater than the shared variance with other constructs. This indicates that there was discriminant validity according to the Fornell-Lacker criterion (Keni, 2021); hence, the SEM could be used for analysis.

Transaction experience was measured as a higher order construct with four lower order constructs (PTS, PTC, PTE, and PTX). These four constructs were for the higher order construct TE. The formative variable TE was validated by using the outer loadings, outer weights and VIFs. Perceived transaction speed had an outer loading of 0.48, an outer weight of 0.119, and a VIF score of 1.196; perceived transaction convenience had an outer loading of 0.87, an outer weight of 0.661, and a VIF score of 1.301; perceived transaction enjoyment had an outer outer loading of 0.67, an outer weight of 0.292, and a VIF score of 1.265, and perceived transaction security had an outer loading of 0.51, an outer weight of 0.34, and a VIF score of 1.067. The statistics showed the higher order construct to be

reliable and valid. Hence, the literature and both the qualitative and quantitative study confirmed the validity of the measures of transaction experience.

#### **7.4.2. Outcomes of Transaction Experience**

This section presents the discussion of the outcomes of transaction experience and so aims to answer research question 1: What is the aftermath of a positive transaction experience? The answer to this research question can be incorporated with the outcomes of transaction experience. This study termed the outcomes of transaction experience as ‘transaction-specific’, which is a relatively new concept in the literature; evidence of only transaction-specific satisfaction (Anderson et al., 1994; Andaleeb and Conway, 2006; Bodet, 2008; Boshoff, 1999; Fornell et al., 1994; Homburg et al., 2005; Johnson, 2001; Jones and Suh, 2000; Olsen and Johnson, 2003; Veloutsou et al., 2005) and transaction-specific brand equity (Olsen, and Johnson, 2003) exist in the literature but to a very limited range.

This study termed all the outcomes from the transaction experience as ‘transaction-specific’. So, all the constructs included in the conceptual model were named accordingly, which required the study to define and establish measures for each of the transaction-specific constructs. The definitions of the constructs are presented in Chapter 1, Chapter 3, and Chapter 5, while the measures are outlined in Chapter 4. After the definitions were established for the constructs, they were further investigated and explored during the qualitative studies, firstly to check whether the definitions comply with the qualitative study findings and secondly to gain further insights on the concept of ‘transaction-specific’ constructs. Thus, the authenticity of using the term ‘transaction-specific’ was explored in the qualitative study. A few the relevant responses showing what respondents thought by the term ‘transaction-specific’ are highlighted below.

*Something specific to transaction. That is, you are talking about things that are related to transaction only - nothing else. ‘Transaction-focused’, I would say. (ME, Commercial Manager, M&S)*

*It's like something about a particular transaction.... It's more about the transaction... [transaction-specific brand performance is] the performance of the company that is specific to the performance, not other things like customer service. It's specific for transaction and the activities that are involved. (HS, Bank Manager, HSBC)*



*The thing happens at the moment of transaction...as a result of transaction ... (FG-C, Bus Drivers & Retail Staff)*

The outcomes of transaction experience as reflected in the conceptual model include the transaction-specific outcomes: transaction-specific satisfaction (H1), transaction-specific trust (H2), transaction-specific performance (H3), and transaction-specific associations (H4). In addition, the mediators perceived reputation and brand personality are also indirectly the outcomes of transaction experience whereas perceived reputation is the outcome of transaction-specific satisfaction (H5), and brand personality is the outcomes of transaction-specific associations (H6). These outcomes are hypothesised based on the existing literature discussed in Chapter 3. The hypotheses that reflect the outcomes of transaction experience are H1, H2, H3, H4, H5, and H6.

Since the transaction-specific constructs are not explored in the literature, constructs are explored within the existing information available; for example, customer experience is used as a reference for transaction experience, transaction-specific satisfaction is used as a reference for satisfaction, and so on, in terms of defining and setting up its measures.

Likewise, the literature shows evidence that transaction-specific satisfaction (Bustamante and Rubio, 2017; Poushneh Vasquez-Parraga, 2017; Powers et al., 2017; Roy et al., 2018; Foroudi et al., 2018; Söderlund and Sagfossen, 2017; Zaid and Patwayati, 2021), transaction-specific trust (Ameen et al., 2021; Bawack et al., 2021; Cai et al., 2017; Hallikainen and Laukkanen, 2018; Patil et al., 2018; Laukkanen, 2018; Wang et al., 2017), transaction-specific performance (Cadotte et al., 1987; Geldes et al., 2017; Gill and Kim, 2021; Merrilees, 2016; Nguyen et al., 2021; Labarbera and Mazursky, 1983; Lemon and Verhoef, 2016; Zhang et al., 2017), transaction-specific associations (Aaker, 1991; Emari et al., 2012; Füller and Bilgram, 2017; Keller, 1998; Zha et al., 2020), perceived reputation (Almeida and Coelho, 2017; Choi, 2020; Mariutti and de Moura Engracia, 2019; Weiss et al., 1999), and brand personality (Aaker, 1997; Choi et al., 2017; Emari et al., 2012; Ferrandi et al., 2015; Grewal et al., 2017; Keller and Richey, 2017; Oklevik et al., 2021; Plummer, 2000) are all outcomes of a favourable transaction experience. These relationships are further validated in the qualitative study.

During the qualitative study the outcomes of transaction experience based on the existing literature are further probed and explored, which reflects H1, H2, H3, H4, H5, and H6. Hence, it was an excellent opportunity to validate the definitions and measures for all the transaction-specific outcomes. These findings were further purified and validated by empirically testing each of the hypotheses in the

conceptual model. Some of the findings from the qualitative study for each of the outcomes of transaction experience are presented below.

Hypothesis 1 [Transaction experience — Transaction-specific satisfaction]

*A positive transaction experience means that you touch, and the gate opens, and you go through. Done! It makes you happy and gets you moving. You are satisfied with the experience - simple as that. (SB, Station Supervisor, TfL)*

*When customers undergo a positive experience, no wonder they will be happy and satisfied. Our customers will experience certain good things about our company, and they will be satisfied with their experience. And we try to make sure every single customer undergoes excellent experience at every touch points so as to create a pool of satisfied customers. (ME, Commercial Manager, M&S)*

Hypothesis 2 [Transaction experience — Transaction-specific trust]

*Like from previous experience... if they are not happy with the product, they will come for refunds or exchanges. They then trust the company that they do refunds and exchanges without any problems. So customers like to come in again, and it generates the trust as well. (FG-B, MBA Students)*

*Well, our customers do trust us. We make sure they do. It is because we make sure there are no errors, and even there is, we try to resolve it. So, from using contactless when they see everything working as it should, they generate that trust factor. ...That is because they have experienced that it is safe and secure and works the same way the Oyster card does. (SB, Station Supervisor, TfL)*

Hypothesis 3 [Transaction experience — Transaction-specific performance]

*When customers are happy and they are satisfied with their transaction experience with us, definitely they will have positive perceptions about our performance. So, every time they have had an experience with us, they will develop these positive perceptions in their minds about our performance at the checkout. (ME, Commercial Manager, M&S)*

*So, when they experience that the transaction is occurring, as it should, the money taken is correct, the gates are opened properly, no hassle, no fault in the transaction process, and they*

*get that positive perception. ...the performance is largely affected by the transaction. Fault- and error-free transaction is very important for that reason. (SB, Station Supervisor, TfL)*

Hypothesis 4 [Transaction experience — Transaction-specific associations]

*When a customer has their transaction, they think, 'It's fast enough, reliable enough, the service I am getting is ok'. This sort of ideas they get from us during the transaction. (JA, Marketing Manager, Coffee Republic)*

*After the experience, customers will generally have some positive and some negative perceptions about contactless travel in your case. They will probably find it enjoyable, easy, and hassle free, or they might think it is a confusing, non-secured way of payment and so on. ....with a positive experience, you rarely can have negative associations. (SB, Station Supervisor, TfL)*

Hypothesis 5 [Transaction experience — Transaction-specific perceived reputation]

*Customer satisfaction has direct impact on the company's reputation. But we're just not sure how the reputation is gained when talking about transactions. Transactions will be the least factor to build a company's overall reputation. I mean, I am a bit confused about when you are talking about transaction-specific reputation. I would rather say only 'reputation' which itself says it all. (FG-B, MBA Students)*

*Nowadays, everything is becoming so digitized and everything is in your phone, and the way everything is going, for a customer, seeing that the bank is following the same trend and providing the same facilities is definitely a good experience. And the bank introduced it, having this in their mind that their customer would like it, and for that, I would like to say that the customers' experience and the impact they have on the business is very positive. (HS, Bank Manager, HSBC)*

Hypothesis 6 [Transaction experience — Transaction-specific brand personality]

*Quick and easy. Oh! you mean humanising it. Ok. Young, professional, outgoing – yeah, that is all I can think of. (SB, Station Supervisor, TfL)*

*It would be a very effective person and fast. It would be in its 30s, and it would be a woman. It would be a very responsible and reliable person.... fun, cool, simple, stylish, professional, intelligent and sophisticated. (WV, Customer Service Manager, Vital Ingredients)*

The findings of the qualitative study were further tested by the quantitative study. In the quantitative analysis, the aftermath of transaction experience was measured using transaction-specific satisfaction, transaction-specific trust, transaction-specific performance, and transaction-specific association. Furthermore, brand personality and perceived reputation are also outcomes of transaction experience since they are indirectly influenced by transaction-specific association and transaction-specific satisfaction respectively. The influence of transaction experience on the dependent variables was assessed using H1, H2, H3, H4, H5, and H6.

**H1** confirms whether a favourable (speedier, convenient, enjoyable, and secure) transaction experience (TE) will result in higher transaction-specific satisfaction (TSS) at a retail facility. Results showed a positive and significant effect ( $\beta = 0.157, p < 0.01$ ) between the independent and the dependent variable at a 95% confidence interval with an effect size of 0.025, which is greater than the standard of 0.02. Therefore, the null hypothesis was rejected and the alternative hypothesis was retained. Thus, according to the empirical study, this hypothesis (H1) was supported.

**H2** confirms whether a favourable (speedier, convenient, enjoyable, and secure) transaction experience (TE) will result in higher transaction-specific trust (TST) at a retail facility. Analysis showed an effect size of 0.364, which is greater than the 0.02 threshold. At a 0.05 significance level, it could be deduced that transaction experience has large a positive and significant effect on the transaction-specific trust ( $\beta = 0.452, p < 0.01$ ). Therefore, the null hypothesis was rejected, and the alternative hypothesis was retained. Thus, according to the empirical study, this hypothesis (H2) was supported.

**H3** confirms whether a favourable (speedier, convenient, enjoyable, and secure) transaction experience (TE) will result in a higher transaction-specific performance (TSP) at a retail facility. At a 95% confidence interval, it could be inferred that transaction experience has a positive and significant effect ( $\beta = 0.559, p = 0.001$ ) on transaction-specific performance, when all other variables are held constant. A t value of 17.363 is obtained at an equivalent effect size of 0.455, thus the null hypothesis is rejected, and the alternative hypothesis is retained. Thus, according to the empirical study, this hypothesis (H3) was supported.

**H4** confirms whether a favourable (speedier, convenient, enjoyable, and secure) transaction experience (TE) will result in a higher transaction-specific associations (TSA) at a retail facility. Just like the first three hypotheses, transaction experience had a positive and significant effect ( $\beta = 0.276, p < 0.01$ ) on transaction-specific associations (TSA) at a 95% confidence interval when other variables are held constant. With a p value of 0.001 implying a less than 5% risk in rejecting the null hypothesis; while it is true and an effect size of 0.082 which is greater than the 2% threshold. Therefore, the null hypothesis was rejected, and the alternative hypothesis was retained. Thus, according to the empirical study, this hypothesis (H4) was supported.

**H5** measured the effect of transaction-specific satisfaction (TSS) on perceived reputation (PR). Results showed a positive and significant effect ( $\beta = 0.151, p < 0.01$ ) between transaction-specific satisfaction and perceived reputation, when all other variables are held constant at a 95% confidence interval. The null hypothesis was rejected and the alternative hypothesis retained with an effect size of 0.023 and corresponding p value of 0.0001. Thus, according to the empirical study, this hypothesis (H5) was supported.

**H6** evaluated the effect of transaction-specific associations (TSA) on brand personality (BP). Results from the analysis showed that transaction-specific associations have a positive and significant effect ( $\beta = 0.23, p < 0.01$ ) on brand personality when all the other variables are held constant at a 95% confidence interval. With a t value of 4.993, a p value of 0.0001, and a corresponding effect size of 0.056, the null hypothesis was rejected while the alternative hypothesis was retained. Thus, according to the empirical study, this hypothesis (H6) was supported.

From the above discussion, it was evident that starting from the literature then moving to the qualitative study and finally progressing to the quantitative study, all the hypotheses reflecting the outcomes of transaction experience were supported, and there were no concerns or confusion regarding the relationships as far as transaction experience and its outcomes are concerned. The next set of hypotheses defines the impact of transaction experience on transaction-specific brand equity, as discussed in the following section.

#### **7.4.3. The Impact of Transaction Experience on Transaction-specific Brand Equity-** (Antecedents to Transaction-specific Brand Equity)

This section presents the discussion on the impact of transaction experience on transaction-specific brand equity. This section aims to answer research question 2, which asks, how does transaction experience affect transaction-specific brand equity? The answer to this research question can be incorporated with the antecedents of transaction-specific brand equity. Hence, the ultimate objective of the study is to link transaction experience with transaction-specific brand equity. In doing so, the outcomes of transaction experience are hypothesised to be the antecedents of transaction-specific brand equity.

Every single transaction experience matters to the organization for the ultimate customer satisfaction and overall profitability, that is the transaction-specific brand equity of the organization (Bitner and Hubbert, 1994; Danaher and Mattsson, 1994; Johnston, 1995, 1999). Thus, it is very important to analyse the outcomes of a positive transaction experience for every single customer to gain their long-term commitment, as it has been shown that repeat customers are five times more profitable than new customers (Gupta and Kim, 2007), and so have a huge impact on transaction-specific brand equity.

As mentioned above, the outcomes of transaction experience are the antecedents to transaction-specific brand equity, which implies the impact of transaction experience on transaction-specific brand equity (RQ 2). Thus, the antecedents of transaction-specific brand equity are perceived reputation (H7), transaction-specific satisfaction (H8), transaction-specific trust (H9), transaction-specific performance (H10), transaction-specific associations (H11), brand personality (H12), and the focal construct itself, namely, transaction experience (H13). These antecedents to transaction-specific brand equity are hypothesised based on the existing literature as discussed in Chapter 3, and the hypotheses that reflect the relationships include H7, H8, H9, H10, H11, H12, and H13.

The qualitative study further validates the relationships which are again justified through empirical testing. Some of the findings from the qualitative study for the antecedents to transaction-specific brand equity are presented below.

Hypothesis :7 [Perceived reputation — Transaction-specific brand equity]

*Positive perceived value especially of a company's reputation is very important for developing brand equity. ....Also, there is this word of mouth added advantage. There are many tourists coming to our store, as they have a positive perceived value for M&S maybe heard from friends and family living here. (ME, Commercial Manager, M&S)*

*Positive perception towards a company does increase the brand equity - no doubt. ....we do make sure the perception is positive; otherwise, there will be an impact on our reputation, and as I mentioned before, our country's reputation. However, a positive perception will be able to attract tourists. (SB, Station Supervisor, TfL)*

The results of the hypo thesis suggest that there is a positive relationship between perceived reputation and transaction-specific brand equity for a retail facility, although this relationship is not statistically significant. This finding is in line with previous research which suggests that perceived reputation has a positive impact on brand equity, but the effect may not be strong enough to reach statistical significance in all cases. The results also suggest that for each unit increase in perceived reputation, transaction-specific brand equity increases by 6.90%, which is consistent with the literature that highlights the importance of reputation in building brand equity. However, the t statistic of 1.379 implies that there is a 16.80% risk in assuming that the perceived reputation has a significant effect on TBE, which is higher than the level of significance of 5%. This highlights the need for further research to better understand the relationship between perceived reputation and transaction-specific brand equity in retail facilities.

Hypothesis 8 [Transaction-specific satisfaction — Transaction-specific brand equity]

*Satisfied customers are our assets. We always strive for a long-term relation with our customers. (ME, Commercial Manager, M&S)*

*And we try to make sure every single customer undergoes excellent experience at every touch point so as to create a pool of satisfied customers. Our customers' satisfaction is our prime goal and priority. It is, after all, our reputation and adds value to our brand. (ME, Commercial Manager, M&S)*

Hypothesis 9 [Transaction-specific trust — Transaction-specific brand equity]

*Trust is asset to any organization and for us too. When customers have trust in us, it means life is easier for both the parties. With trust, the customers will be more confident and travel faster with less tension, less things to worry about. ...Queue management is effective. We also require less staff to manage and deal with suspicious queries that involves trust issues. (SB, Station Supervisor, TfL)*

*If the customer trust us they will come back, if they come back and purchase more our profit will increase. (WV, Customer Service Manager, Vital Ingredients)*

Hypothesis 10 [Transaction-specific performance — Transaction-specific brand equity]

*Performance is important, and also, trust is involved in performance. Fault-free and hassle-free accurate transactions can not only make customers happy but gain trust and confidence in our transaction procedure. Better performance leads to higher revenue not only in terms of customer satisfaction only but also the number of customers served is more, which is added revenue for us. (SH, Brand Manager, SSP)*

*Better performance of a company makes it not only more effective and increases the productivity, but also it helps to gain customer trust and loyalty. (ME, Commercial Manager, M&S)*

Hypothesis 11 [Transaction-specific association — Transaction-specific brand equity]

*I guess I just said that. So, the way positive personality perceptions would add value to our company, the same way other positive perceptions, which you can say as associations, can increase the brand value, too. The rule and the reason is the same. (HS, Bank Manager, HSBC)*

*The more positive associations that customers have in their minds, the more the brand value will increase adding up to the brand equity. (SH, Brand Manager, SSP)*

Hypothesis 12 [Brand personality — Transaction-specific brand equity]

*Any type of positive perceptions will add to brand equity. So, if the brand personality perception is positive, it will impact on brand equity. ...So, these perceptions about a positive personality would definitely add to our brand value. (ME, Commercial Manager, M&S)*

*Anything positive will add to brand equity. Positive brand personality will definitely have a positive impact on brand equity. For example, if our customers' think of us as a trustworthy person, then that means they trust us, and in turn, this impacts on brand equity the same way as I was saying about trust and brand equity in the same way. (SB, Station Supervisor, TfL)*



Hypothesis :13 [Transaction experience — Transaction-specific brand equity]

*Safety, security, performance is important for a better transaction experience that can lead to brand equity. (FG-A, Academics, R-3)*

*I think trust and satisfaction are the main thing when it comes to transaction and also safety, and if a retailer can maintain all these, they can ensure a positive transaction experience, which will not only get them profits [and] long-term relationships with the customers, but [will] also affect their brand equity, which is, I guess, what you are studying. (FG-A, Academics, R-1)*

The findings from the qualitative study were further empirically tested by the quantitative study. To quantitatively evaluate the impact of transaction experience on transaction-specific brand equity, the study used the antecedents of transaction-specific brand equity, that is, perceived reputation (PR), transaction-specific satisfaction (TSS), transaction-specific trust (TST), transaction-specific performance (TSP), transaction-specific associations (TSA), brand personality (BP), and the focal construct itself, namely, transaction experience (TE). These are hypothesised as H7, H8, H9, H10, H11, H12, and H13 respectively.

**H7** fails to confirm the impact of perceived reputation (PR) on transaction-specific brand equity (TBE) at a retail facility. Results indicated at a 95% confidence interval that PR has a positive and insignificant effect on transaction-specific brand equity with an effect size of 0.005, which is less than the threshold of 0.02, and a p value of 0.168. Therefore, it failed to reject the null hypothesis. It could be concluded that quantitatively, perceived reputation does not bring a significant amount of information in explaining transaction-specific brand equity. These results differed from those obtained in the qualitative study where respondents claimed that perceived reputation could significantly influence transaction-specific brand equity. From the quantitative analysis, it can be deduced that PR does not have any significant effect on TBE ( $\beta = 0.069, p = 0.168$ ). Therefore, it is seen that PR does not bring a significant amount of information in explaining TBE. Thus, according to the empirical study, this hypothesis (H7) was rejected.

**H8** tends to confirm the impact of transaction-specific satisfaction (TSS) on transaction-specific brand equity (TBE) at a retail facility. The quantitative results show that, at a 95% confidence interval, transaction-specific satisfaction (TSS) has a positive but insignificant effect on transaction-specific

brand equity (TBE) ( $\beta = 0.001, p = 0.998$ ). The effect size accompanying TSS is 0.001, which is considered too small and has no significant effect as described by Cohen (1988). The risk of rejecting the null hypothesis while it is true is 99%, which is greater than 0.05. Hence, it showed that TSS did not bring a significant amount of information in explaining TBE. Thus, according to the empirical study, this hypothesis (H8) was partially supported.

**H9** tends to confirm the impact of transaction-specific trust (TST) on transaction-specific brand equity (TBE) at a retail facility. The quantitative results show that transaction-specific trust (TST) has a positive and significant effect on transaction-specific brand equity (TBE) ( $\beta = 0.242, p = 0.001$ ), with all other variables being constant. From the significance of the t statistic of 4.853, a risk of 0.1% was assumed, considering that TST has a significant influence on TBE, which is below the significance level of 5%. With a corresponding effect size of 0.058, which is greater the threshold value of 0.02, it can be concluded with certainty that TST has a significant effect on TBE. The null hypothesis is therefore rejected in accordance with the results obtained in the qualitative study. Thus, according to the empirical study, and supported by the qualitative study, this hypothesis (H9) was supported.

**H10** tends to confirm the impact of transaction-specific performance (TSP) on transaction-specific brand equity (TBE) at a retail facility. Analysis indicated a positive and significant effect on the relationship ( $\beta = 0.191, p = 0.001$ ) between the two variables. The effect size associated with TSP was 0.05, which exceeds the threshold of 0.02. Therefore, the null hypothesis was rejected, implying that transaction-specific performance provides a significant amount of information that can be used in predicting transaction-specific brand equity.

**H11** tends to confirm the impact of transaction-specific associations (TSA) on transaction-specific brand equity (TBE) at a retail facility. It was found that transaction-specific associations have a positive and insignificant influence ( $\beta = 0.059, p = 0.051$ ) on transaction-specific brand equity at a 95% confidence interval. The effect size of 0.007 is negligible according to the standard value of at least 0.02. Therefore, it could be concluded that transaction-specific associations do not provide enough information that can be used to forecast transaction-specific brand equity. By failing to reject the null hypothesis, the results thus differed from those revealed by the qualitative study. Thus, according to the empirical study, this hypothesis (H11) was rejected.

**H12** tends to confirm the impact of brand personality (BP) on transaction-specific brand equity (TBE) at a 95% confidence interval. A t value of 1.565 indicated that brand personality has a positive and insignificant effect ( $\beta = 0.058, p = 0.118$ ) on transaction-specific brand equity. Furthermore, the corresponding effect size of brand personality was 0.005, which is out of the acceptable effect size range. Therefore, it failed to reject the null hypothesis as opposed to the findings of the qualitative study. Thus, according to the empirical study, this hypothesis (H12) was rejected.

**H13** The final evaluation of the impact of transaction experience was done using H13, which measured the direct impact of the focal construct itself (TE) on transaction-specific brand equity (TBE). Given the p value of 0.001, which is lower than the level of significance of 5%, and the associated effect size of 0.09, which falls within the range of at least 0.02, we therefore reject the null hypothesis and accept the alternative ( $\beta = 0.317, p = 0.001$ ). It could be concluded that transaction experience brings a significant amount of information in predicting transaction-specific brand equity. The risk to reject the null hypothesis while it is true is lower than 0.1%. This confirms the results of the qualitative analysis on the effect of transaction experience on transaction-specific brand equity.

In conclusion, it is evident that some of the hypotheses considered as the antecedent to transaction-specific brand equity are rejected. However, this could be due to the sample size or the quality of the data. In contrast, both the literature and the qualitative study support all these empirically rejected hypotheses very strongly. Therefore, it would be worth supporting all the hypotheses after all. The next section presents a discussion on the moderation effects.

#### **7.4.4. The Moderating Effect of Age and Profession**

The renowned work of Baron and Kenny (1986) emphasizes the role and impact of moderators and mediators in specific research. They claimed a moderator to be a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable. The authors suggested that, specifically, within a correlational analysis framework, a moderator is a third variable that affects the zero-order correlation between two other variables (Baron and Kenny, 1986).

In the initial conceptual model, no moderators were evident, but while conducting the qualitative study, very interestingly, two moderation effects became evident. One of these is the moderation effect of age on the relationship between transaction experience and transaction-specific trust, and the other is the moderation effect of profession on the direct relationship between the focal construct (transaction

experience) and the ultimate outcome (transaction-specific brand equity). Moderator variables specify when certain effects will hold (Baron and Kenny, 1986). These moderators were clearly ignored/unidentified in the previous conceptual model presented in Chapter 3, but during the interviews and the focus groups, the existence of such moderation effects was clearly dominating the relationships between the mentioned constructs. Thus, after careful analysis and probing, these moderation effects were reflected in the revised conceptual model presented in Chapter 5. Thus, two new hypotheses were added, which reflected the moderators: age (H14) and profession (H15). Some of the qualitative findings on how these moderators were discovered are presented below.

Moderating effect of age

Hypothesis :14 [Transaction experience  $\xrightarrow{\downarrow}$  Transaction-specific trust]

*I would say younger generation are happier to use it as they are into technology and know and rely on it so they have that faith compared to older people who are reluctant to use any sort of new technology. (FG-B, MBA Students).*

*If it is an older customer, and they know the company.... they hesitate when we say the transaction didn't go through, but they see on their phone that it did, they get a bit confused and ask for a receipt. But what we tell them is, if they feel they are paying extra money, they should just come back to get a statement, and then we will solve their problem. We don't mind giving free refunds.... [When asked about younger ones] Well, they are ok with it most of the time. They are rushing and want a transaction quickly. Plus, they are used to technological stuff. (WV, Customer Service Manager, Vital Ingredients)*

Hypothesis :15 [Transaction experience  $\xrightarrow{\downarrow}$  Transaction-specific brand equity]

Moderating effect of profession

*Safety, security, performance is important for a better transaction experience that can lead to brand equity. (FG-A, Academics)*

*I think trust and satisfaction are the main thing when it comes to transaction experience, which will not only get them profits [and] long-term relationships with the customers but also affect their brand equity, which is I guess what you are studying. (FG-A, Academics)*

The moderation effect of age was found to be evident in the relationship between transaction experience and transaction-specific trust. According to the qualitative findings, the relationship between transaction experience and transaction-specific trust is moderated by the age factor. It is evident from qualitative findings that transaction-specific trust is stronger for younger customers compared to older customers. Hence, it can be concluded that the moderation effect is stronger for younger customers.

It is evident from marketing studies (Djafarova and Rushworth, 2017, La Ferle and Morimoto, 2009) that as people age and move through different life stages, their decision-making styles change, and these changes determine how they experience things around them. In turn, it affects the preferences of their self-concepts and alters the way they respond to certain factors including technology such as contactless or Apple Pay. It is believed that younger and older adult users may use and respond to any technology innovation very differently (Chung et al., 2010).

Research suggests the significant role age plays in decisions about technology adoption (e.g., Akhter, 2003, Porter and Donthu, 2006), and many scholars have emphasized the danger of an increasing digital divide between the generations (e.g., Paul and Stegbauer, 2005). It has been observed that older adults may hold different perceptions of technology or online features compared to younger adults (Chung et al., 2010). Furthermore, during the qualitative study, this important and interesting fact became evident. While analysing the relationship between transaction experience and transaction-specific trust, it was found that the age factor had a significant impact on the relationship between the two. In line with the literature stated above, it was clear that younger customers experienced more trust towards contactless payment (contactless technology was the basis for data collection) compared to the elderly ones. While interviewing the managers/directors of various retail outlets, this finding came up clearly.

**H14** However, during the quantitative study, the analysis started by measuring the moderating effect of age and profession on the relationship between transaction experience (TE) and transaction-specific trust (TST). The moderating effect of age on the association of transaction experience on transaction-specific trust was significant ( $\beta = -0.237, p = 0.001$ ). Again, since the moderating term was negative, and the p value is lower than 0.05, the study concludes that age is a significant moderator to the relationship between transaction experience and transaction specific trust. Given that the moderating coefficient is negative, this implies that the relationship between transaction experience and transaction specific trust is stronger for younger people than it is for older people. Therefore, we

reject the null the hypothesis. The risk to reject the null hypothesis while it is true is lower than 0.01% which is lower than the level of significance of 0.05. Age can be used to explain the mechanism through which transaction experience and transaction-specific trust relate.

**H15** In addition to age, the study also quantitatively examined the moderation effect of profession between the relationship of transaction experience (TE) and transaction-specific brand equity (TBE). This was based on the four professions that were mainly considered for the study: academics, students, retail workers/bus drivers, and office employees. The respondents were grouped under groups A, B, C, and D respectively to represent the four main professions of the study.

For Group A, which included academics and researchers, transaction experience had a positive and significant effect ( $\beta = 0.632, p = 0.001$ ) on transaction-specific brand equity, with all other variables held constant, with a  $p$  value of 0.001, which is lower than the level of significance.

In group B, which included students, transaction experience had a positive and significant effect ( $\beta = 0.462, p = 0.001$ ) on transaction-specific brand equity, with all other variables being equal. With a  $p$  value of 0.001, which is lower than the level of significance of 5%, it therefore rejects the null hypothesis and thus it was concluded that transaction experience does significantly affect transaction-specific brand equity for students.

In the category of retail staff and bus drivers (Group C), transaction experience had a positive and significant effect ( $\beta = 0.42, p = 0.001$ ) on transaction-specific brand equity, with all other variables being equal, with a  $p$  value of 0.001, which is lower than the level of significance of 0.05. Therefore, it could be concluded that transaction experience significantly affects transaction-specific brand equity for profession group C. Transaction-specific brand equity is significantly increase when transaction experience increases for profession C.

Finally, for group D, which consists of office employees, profession significantly ( $\beta = 0.546, p = 0.001$ ) affected the relationship between transaction experience and transaction-specific brand equity. The  $p$  value of 0.001 was lower than the level of significance, and thus it was concluded that transaction experience does significantly affect transaction-specific brand equity for profession group D.

In addition, the Welch-Satterthwaite Test was used to compare group differences between the different professions. It was used to test if there is any significant difference between different profession groups regarding the effect of transaction experience on transaction-specific brand equity. Analysis showed that no group significantly differed from any other, and it was concluded at a 5% level of significance that the effect of transaction experience on transaction-specific brand equity as the same for each of the professional groups. Any differences observed were due to random chance. Therefore, it failed to reject the null hypothesis, and so this hypothesis (H15) concerning the profession moderator was rejected. These results significantly differ from the findings obtained in the qualitative study.

The moderation effect of age between transaction experience and transaction-specific trust is evident in the literature and fully supported by both qualitative findings and quantitative study. Although, there is only minimal literature regarding the moderation effect of profession between transaction experience and transaction-specific brand equity to support the hypothesis, the moderation effects are strongly supported by the mix method study.

#### **7.4.5. The Mediation Effect of Perceived Reputation and Brand Personality**

The professions occupy a position of immense importance in our society, which is characterized by minute divisions of labour based upon technical specialization and where many important features of social organization are dependent upon professional function. Professional activities play a predominant role in the life patterns of increasing numbers of individuals of both sexes in shaping and determining their behaviour, attitudes, and experience, and they affect other entities, such as a retail brand equity (Greenwood, 1957). Although few studies have been conducted considering occupation as a moderator (Fila et al., 2017; Fryxell et al., 1991; Landrum et al., 2010 etc), no existing literature was found on profession being analysed as a moderator, especially in the marketing literature. Hence, the decision to establish profession as a moderator is based solely on the qualitative study.

After analysing the qualitative data, an interesting finding emerged from the qualitative study and hence, the model was revised accordingly. In the process of revising the model, the study needed to analysis the direct relationship between the focal construct (transaction experience) and the actual output (transaction-specific brand equity) and while taking that relationship into consideration and going back to the qualitative raw data, the data were organised, arranged, and analysed for the second time (only manually this time), and this led to the emergence of some interesting findings. For example, it was found that the direct relationship between transaction experience and transaction-specific brand equity was in some way moderated by the profession of individuals. The missing link between these

two constructs if found, could be very useful to answer RQ2 of this study. Hence, it was essential to add this relationship, and in the process, the moderator ‘profession’ came to play a very important role in the relationship between the two constructs.

More interestingly, while conducting the focus groups, each of the groups were segregated according to their profession to enhance the flow of conversation and facilitate the ease and comfort of the participants. Coincidentally, this characterising of the groups helped significantly in analysing ‘profession’ as a moderator. It was very easy to carry out the rest of the analysis once this link was found. For a better understanding detailed analysis per group are presented in an organised and segregated (according to profession) manner.

There were four focus groups conducted, in total, namely, FG-A, FG-B, FG-C, and FG-D. It was evident that each focus group responded very differently, while the participants in the same group responded more or less similarly. While answering the questions and discussing the issues raised, participants made some valuable statements regarding the relationship between transaction experience and transaction-specific brand equity. FG-A consisted of participants who were either academics or researchers. Some of their statements are presented below.

### Hypotheses 5, 7 and 8

Mediation effect of perceived reputation

[Transaction-specific satisfaction  Transaction-specific brand equity]

*When customers undergo a positive experience, no wonder they will be happy and satisfied. I don't know how to explain it, but this is very natural. Our customers will experience certain good things about our company, and they will be satisfied from their experience. And we try to make sure every single customer undergoes an excellent experience at every touch point so as to create a pool of satisfied customers. (ME, Commercial Manager, M&S)*

*If it's a worldwide brand, plus I am happy with them, then the reputation of it is already in my mind, and even though there is a problem in my transaction, I would still rely on them. (FG-A, R7)*

### Hypotheses 6, 11 and 12

Mediation effect of brand personality

[Transaction-specific associations  Transaction-specific brand equity]



*Through experience, we create an image of the entire experience including every element and every detail. Some of the associations we develop in our minds lead to impersonalise the brand. This is surely beneficial factor for our company. (SH, Brand Manager, SSP)*

*....when you experience something, you develop some perceptions in your mind. Only after you have made a contactless payment can you imagine it as a person and say how the person is. You need to have used it first for that and have that kind of cues in your memory. A pile of such customers having such cues makes us gain loyal customers, which we thrive on. (SB, Station Supervisor, TfL)*

To empirically prove the mediation effect of perceived reputation (PR) and brand personality (BP), the direct and indirect path are analysed for both mediators. The direct effect of TSS on TBE was found to be insignificant ( $\beta = 0.021, p = 0.707$ ). Therefore, when TSS increases, TBE increases but not in a significant proportion. When the mediating variable (PR) was added to the equation, the indirect effect of TSS on TBE remained insignificant ( $\beta = -0.002, p = 0.855$ ). While examining the total effect of TSS on TBE, it was also observed that the total effect of TSS on TBE through the mediator PR is not significant ( $\beta = -0.065, p = 0.149$ ). Therefore, the null hypothesis could not be rejected, and it could therefore reasonably be concluded that PR does not significantly mediate the relationship between TSS and TBE.

On the other hand, the direct effect of TSA on TBE is not significant ( $\beta = -0.084, p = 0.058$ ) This means that when TSA increases, TBE decreases but not in a significant proportion. When the mediating variable (BP) was added to the equation, the indirect effect of TSA on TBE remained insignificant ( $\beta = -0.02, p = 0.085$ ). By examining the total effect of TSA on TBE, it was also observed that the total effect of TSA on TBE through the mediator BP is also not significant ( $\beta = 0.023, p = 0.68$ ). Therefore, it failed to reject the null hypothesis Hence, it could reasonably be concluded that BP does not significantly mediate the relationship between TSA and TBE.

Although not supported empirically, and with little evidence in the literature, the mediation effects can be considered and are supported fully by the strong evidence from the qualitative study.

## **7.5. SUMMARY**

This chapter presented a discussion of the research findings after the analysis of both the qualitative and quantitative studies, and explained the findings in accordance with the existing literature. Insights

from both the qualitative and quantitative studies led to a deeper understanding of the phenomenon. The outcomes revealed that there were a few contradictions between the qualitative and the quantitative studies; however, each complemented the other when giving the rationale and reasons, and hence the need for a mixed-methods study was justified (Creswell, 2003).

Findings of the quantitative study supported the direct effects of transaction experience on transaction-specific satisfaction, transaction-specific trust, transaction-specific performance, and transaction-specific associations. The study also validated perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security as adequate measures of transaction experience. However, the study could not significantly confirm some of the transaction-specific outcomes empirically. Although the moderation effects were supported the mediation effects could not be empirically justified. As a result, the hypotheses which are not supported by the quantitative study can be explained by the literature and the qualitative study, as this type of study involved probing to obtain further insights, and there is a provision for open-ended descriptive responses. Hence, it is important to conduct a mixed method analysis. The next chapter is the final chapter of the thesis, which sets out the study's conclusions, implications, limitations, and gives suggestions for future studies.

## Chapter 8: CONCLUSION

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### 8.1 INTRODUCTION

This is the concluding chapter of the thesis and presents the study's overall conclusions. It also outlines the theoretical, methodological, managerial and social contribution of this study. This chapter also list the limitations of this study. Moreover, it outlines some recommendations for future studies. It is divided into five main sections. Section 8.1 starts with an introduction to the chapter. Section 8.2 discusses the overall implications of the research findings and summarises the overall study step by step along with analysis of the research findings. Next, section 8.3 illustrates the various contributions of this study, i.e., theoretical, methodological, managerial and social contribution. The next section 8.4 outlines the limitations of the research and future studies that can be undertaken in the light if this current study. Finally, section 8.5 provides a final conclusion of the thesis.

### 8.2 IMPLICATIONS OF THE RESEARCH FINDINGS

This study has made some very important contributions to knowledge. Its major contribution is based on the gaps found in the literature, i.e., 'What is the aftermath of a positive transaction experience?' and 'How does transaction experience affect transaction-specific brand equity?' The main aim of this study was to establish transaction experience as a construct and define and measure it. In addition, it aimed to study 'transaction-specific' outcomes and analyse the implications for transaction specific brand equity.

The gaps in the literature are summarised as follows. First, there is a lack of empirical research into the definition and measures of transaction experience (Chalil et al., 2020). Second, there is too little recognition of the transaction experience as a construct as well as its dimensions, antecedents, and consequences (Bagdare and Jain, 2017; Mandler et al., 2021). Third, there has been no systematic study in the marketing literature that has examined the relationship between transactional experience and consumer assessments (Hoyer et al., 2020; Manthiou et al., 2020). Fourth, there is a scarcity of explanatory models and theory-building inquiries in the domain of transaction experience (Kolotylo-Kulkarni et al., 2021; Peifer and Tan, 2020). Fifth, the studies showing the impact of customer experience on brand equity (Ou et al., 2020; Pina and Dias, 2021; Rizwan et al., 2021) have not been tested and validated in the transaction-specific context to date.

This research has defined and measured the construct ‘transaction experience’, which was missing in the literature, and has also examined the outcomes of transaction experience and its ultimate impact on transaction-specific brand equity. The focal construct of this study was transaction experience (specifically regarding contactless technology), and the final outcome was transaction-specific brand equity in the context of the consumers’ perspective. The study aims to fill the gap in the literature mainly by establishing transaction experience as a construct, which includes defining transaction experience and establishing its measures. In this study, transaction experience is a second order variable and is considered a formative in nature. It is measured in a formative manner through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security, which are the lower order constructs in this model.

In addition to this, the transaction-specific outcomes are recognised and established as constructs in the literature. Moreover, the study explains and proves empirically how transaction experience could lead to transaction-specific brand equity. In the conceptual model, the moderation and mediation effect of age and profession are also incorporated, which is another aspect of this study. This research has taken a mixed-methods approach, which involved a quantitative study (questionnaire/survey) and a less dominant qualitative study (interviews and a focus groups), to develop scales of measurement and to examine the research hypotheses.

This study aims to contribute to the existing research by obtaining a deeper grasp of the concept, definition, and measurements of transaction experience in order to enhance them. The findings of this research have ramifications in the domain of retail management. Furthermore, this study contributes to the subject of business administration and management in significant theoretical, methodological, managerial, social, and ethical ways. The empirical findings of this research will contribute to the study of the entire customer experience as well as to other types of experiences in the literature of e-commerce business, branding, marketing, consumer behaviour, and retail management, among other fields, in addition to previous findings in transaction experience-related research. It would be possible to add to current understanding of the transaction experience idea, including its definition, metrics, and intended outcomes, as a result of this research.

After an extensive literature review, the hypotheses were developed and an initial conceptual framework was presented in Chapter 3. Based on the conceptual framework, the qualitative study was designed and undertaken. The findings of the qualitative analysis led to some major revision and redesigning of the entire conceptual model, which is presented in Chapter 5. Some of the relationships

were revised and some hypotheses were nullified. In addition, the qualitative findings pointed towards a couple of moderation (age and profession) and mediation (perceived reputation and brand personality) effects, which were then incorporated into the revised model in Chapter 5. Moreover, the qualitative findings led to some of the construct being renamed (transaction-specific brand personality to brand personality and transaction-specific reputation to perceived reputation); the reasons and justifications for this are discussed in Chapter 5.

The quantitative findings support the significance of the measures of the higher order construct, namely, transaction experience. All the lower order constructs, i.e., perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security are significant measures of transaction experience according to the quantitative analysis. However, the quantitative study did not support and validate some of the hypotheses. For example, it did not support and validate the effect of transaction-specific performance, transaction-specific association, and brand personality on transaction-specific brand equity. Moreover, the moderation effect of profession was not too significant. Although the moderation effect of age was not quite significant according to the quantitative analysis, the moderation effect did have some effect for the younger generation only (moderation effect included two groups, young and elderly generations).

The non-validated relationships from the quantitative analysis can be well explained and justified by the qualitative analysis. Hence, this is the justification for using a mixed-methods design. The qualitative study not only helped to define and measure transaction experience but also explored the concept of transaction-specific outcomes. In addition, it justified the relationships between all the hypotheses and justified the moderation and mediation effects. The current study complements the opinion of scholars (Bagdare and Jain, 2017; Bhattacharjee, 2001; Bilgili and Egesoy, 2021; Constantinides, 2004; Cho, 2004; Festinger, 1957; Gefen, 2009; Gupta and Kim, 2007; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Jain et al., 2017; Jeon and Yoo, 2021; Zaner et al., 2012) that consumers' attributions regarding transaction experience may lead to such attitudinal and judgmental transaction-specific outcomes as consumers' perceptions of the transaction-specific brand equity (Aaker, 1996; Keller, 2001).

By taking a holistic approach, this research is also able to contribute to marketing theory due to its results. This study used a multi-disciplinary approach to the transaction experience idea as a major contribution to the customer experience literature by presenting a holistic view of the topic (e.g., Dennis et al., 2014; Foroudi, et al., 2018; Gentile et al., 2007; Jain 2017).

Although some scholars (Bank, 2021; Bhattacharjee, 2001; Constantinides, 2004; Cho, 2004; Gefen, 2009; Hoyer et al., 2020; Javed and Wu, 2020; Kim et al., 2009; Ling, et al., 2010; Nayak, 2021; Novak et al., 2000; Purnama et al., 2021; Wu and Wang, 2005; Zaner et al., 2012) have studied transaction experience, it is only in the online context and few researchers have looked into the offline concept of transaction experience. This study will contribute to bridging the gap since the notion of transaction experience will be valid from both an online and offline standpoint, with a focus on the offline concept to help fill the gap in the literature. The current study's theoretical contributions to existing knowledge provide new perspectives on transaction experience. This should result in insights which could make a significant contribution to extant knowledge and help to validate and refine the results in the literature in this field. This study has its theoretical, methodological, managerial and social contribution which is discussed the next section below.

### **8.3 RESEARCH CONTRIBUTIONS**

The research contribution is the most significant element of a doctoral dissertation, which is concerned with aligning the significance of the research to the development of the discipline being studied. The contribution of the study, which extends the boundaries of knowledge, is presented in this section, starting with the theoretical inference and proceeding to the methodological contributions. This study has contributed to the existing literature with both theoretical and methodological contributions. At the same time, the study also makes a significant contribution to the literature on retail management. In addition, this study makes a small yet significant contribution to society. Each of the contributions is presented below separately.

#### **8.3.1 Theoretical Contribution**

This study made significant contributions from a theoretical perspective by addressing two main research questions: ‘What is the aftermath of a positive transaction experience?’ and ‘How does transaction experience affect transaction-specific brand equity?’ To address these research questions, four research objectives were developed (presented in Section 1.5). The research questions and objectives have represented a landmark in this field by addressing a number of gaps in the literature.

Several concept of customer experience exists in the literature from different perspectives, which shows the interest of scholars in this concept (Bascur and Rusu, 2020). The customer experience is a broad concept that encompasses both customers and companies and includes the physical and emotional experiences of customers when interacting with products, systems, and services. This occurs during all of the stages experienced by the customer (Bascur and Rusu, 2020). Since it is a broad

concept, to better understand the role of the customer experience all of the stages experienced by the customer need to be considered, in addition to the different types of experiences that accompany the interactions with a service provider at different touchpoints (Bascur and Rusu, 2020).

And hence, transaction experience is one of the touchpoints which is picked up by this study. Current literature does not have any theories relating to this particular type of customer experience, which is the main contribution of this research. The current literature either takes into consideration the customer experience concept as a whole (Chauhan et al., 2022) or focus on broader concepts like brand experience (Chase and Dasu, 2014), product experience (Hoch, 2002), service experience (Helkkula, 2011) and so on. None of these theories take into account the concept of transaction experience, whereas this is one of the most important touch points of the entire customer experience journey (Roggeveen and Rosengren, 2022).

Customer experience is a key marketing concept, yet the growing number of studies focused on this topic has led to considerable fragmentation and theoretical confusion (Becker and Jaakkola, 2018). Existing theories on customer experience such as the concept of service experience by Helkkula (2011) focus only on service marketing and considers a narrow sample of literature and does not seek to integrate the literature (Bascur and Rusu, 2020).

Another theory by Jakkola (2015) conducts a selective literature review on retail marketing and yet fails to analyse the scope customer experience phenomena or metatheoretical assumptions in the literature fields. Lemon and Verhoef (2016) studied the different areas of customer experience but with a very limited literature review and did not consider transaction experience or similar conceptualisations. Similarly other authors who posed theories of customer experience (Bascur and Rusu, 2020; Jain et al., 2017; Kranzbühler et al., 2018; Lipkin, 2016) does not consider transaction experience as a part of customer experience. Hence, this study takes transaction experience into consideration and proves that this concept it an important touch point of the overall customer experience.

A number of authors who studied transaction experience (Bhattacharjee, 2001; Chalil et al., 2020; Festinger, 1957; Herz and Taubinsky, 2018; Holger and Dmitry, 2018; Purnama et al., 2021) merely shed light on the concept; but they neither define nor measure transaction experience. A few researchers (Bhattacharjee, 2001; Constantinides, 2004; Cho, 2004; Gefen, 2009; Kim et al., 2009; Ling, et al., 2010; Novak et al., 2000; Purnama et al., 2021; Wu and Wang, 2005; Zaner et al., 2012)

have studied transaction experience but only in the online context. Thus, there is a huge gap in the literature in terms of the offline context. Moreover, there is too slight a recognition of transaction experience as a construct, its dimensions, antecedents, and consequences (Bagdare and Jain, 2017; Mandler et al., 2021). This study aims to contribute to the existing literature, the theoretical conceptualisation of transaction experience and pose the concept as an important touch factor of the entire customer experience journey. The theoretical contribution includes a definition of transaction experience and measures for the same, establishing it as a construct in the business, marketing and retailing literature. The contribution extends to showing the outcomes of transaction experience and establishes the concept of transaction-specific constructs in the literature with definition and measures.

In addition to this, there is no systematic study in the marketing literature that has looked at the relationship between transactional experience and consumer assessments (Hoyer et al., 2020; Manthiou et al., 2020). Hence, there is a scarcity of explanatory models and theory-building inquiries in the domain of transaction experience (Kolotylo-Kulkarni et al., 2021; Peifer and Tan, 2020). The research showing the effect of customer experience on brand equity (Ou et al., 2020; Pina and Dias, 2021; Rizwan et al., 2021) has not been tested and validated in the transaction-specific context. Transaction experience is one of the most important aspects of the overall customer experience, as customers are 'paying' in this stage of the experience. Hence, this study further contributes to the impact of transaction experience on transaction-specific brand equity.

In the retail industry, according to Barthel et al. (2015), one of the most important factors is the rising need for a seamless experience across all channels, which includes online, mobile, and in-store sales. This study sheds light on mainly the offline context (transaction experience at a retail store) but also can be used in the online context (retailers' website) if necessary. However, the main contribution of this study is to the brand marketing/ brand management literature, portraying transaction experience from a totally different point of view in contrast to what has been studied so far.

It is very important to study transaction experience, as it is based on the customer-retailer relationship (Zhang et al., 2010). This study contributes to the existing literature by recognising transaction experience as a construct in the marketing, branding, and customer experience literature and by defining and measuring it for existing and future analysis. Transaction experience as the focal construct this study contributes towards a multi-disciplinary paradigm for transaction experience, thereby making a major theoretical contribution to the literature. This multi-disciplinary paradigm helped develop the conceptualisation and operationalisation of the focal construct.



Previous researchers (Bolton et al., 2018; Gentile et al., 2017; Godovykh and Tasci, 2020; Klaus and Maklan, 2013; Lemon and Verhoef, 2016; Meyer and Schwager, 2007; Rahimian et al., 2020) used similar multi-disciplinary paradigms while studying various types of customer experience, such as brand experience, product experience, service experience, online experience etc., with paradigms based on studies in psychology (Bhattacharjee et al., 2016; Puccinelli et al., 2009; Sachdeva and Goel, 2015; Seong, 2021; Zhang et al., 2010), sociology (Gerea et al., 2021; Rather, 2020; Turner, 2021), technology (Barari et al., 2020; Hoyer et al., 2020; Izogo and Jayawardhena, 2018; Pham and Ahammad, 2017; Zhang et al., 2018), and business (Becker and Jaakkola, 2020; Bustamante and Rubio, 2017; Godovykh and Tasci, 2020; Mclean et al., 2018; Witell et al., 2020).

Taking into account previous paradigms and based on a combination of theories similar to those used in psychology, business, and technology, the transaction experience construct was established for this study; for which a new multi-disciplinary paradigm was used for the construct. The multi-disciplinary paradigm on the transaction experience construct helped to develop a scale and new items. Although transaction experience was studied before (Bhattacharjee, 2001; Constantinides, 2004; Cho, 2004; Gefen, 2009; Gupta and Kim, 2007; Kim et al., 2009; Novak et al., 2000; Ling et al., 2010; Wu and Wang, 2005; Zaner et al., 2012), the authors did not measure the construct, and hence, transaction experience has neither a measure nor a scale in the literature. Therefore, it was measured on neither the cognitive for the affective dimensions. After the qualitative and quantitative analysis, items and measures were developed for transaction experience based on both the cognitive and affective dimensions, and this was shown to be a reliable and valid scale.

In this study, transaction experience was considered as a formative variable and measured in a formative manner through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment and perceived transaction security. Thus, transaction experience was considered to be second order variable measured through these four constructs. Similarly, the other transaction-specific outcome scales in this study (i.e., transaction-specific satisfaction, transaction-specific trust, transaction-specific performance, transaction-specific associations, transaction-specific brand equity etc) were purified based on previous scales and were also reliable and valid as per the mix method analysis. Furthermore, this research contributes to the existing literature by examining the effects of transaction experience on other transaction-specific constructs, which are the outcomes of transaction experience, and on the final outcome, that is, transaction-specific brand equity. As with transaction experience, there are hardly any 'transaction-specific' constructs in the literature. Previous models in

the literature does not include the concept of transaction-specific constructs hence, this model is a contribution towards some of the transaction-specific constructs.

Although some authors have studied transaction-specific satisfaction (Bitner and Hubert, 1994; Einci et al., 2008; Hunt, 1977; Johnson, 2001; Ji and Prentice, 2021; Jones and Suh, 2000; Lee et al., 2018; Lien et al., 2017; Olson and Johnson, 2003; Sulphery and George, 2017; Shankar et al., 2003; Veloutsou et al., 2005) and transaction-specific brand equity (Huppertz et al., 1978; Oliver and Swan 1989; Olson and Johnson, 2003), little contribution has been made towards those transaction-specific constructs. A model posed by Pappu and Quester (2006) outlines the relationship between customer satisfaction and brand equity in the retail context. In their study they explain clearly that transaction-specific satisfaction is vital but they in their study undertook a more cumulative approach to customer satisfaction and its effect on brand equity. The model shows the sources of brand equity from customer satisfaction but again it is a more macro concept.

Another study by Rios and Riquelme (2009) outlines a model that incorporates the sources of brand equity. Although it is a retail specific model and takes into account transaction, but it is more an online specific conceptual framework which accounts for more financial side of transaction rather than the consumer-based transaction outcome. Regarding other transaction-specific constructs, such as transaction-specific trust, transaction-specific performance, and transaction-specific associations, there is no evidence of such concepts in the existing literature. In this research, all the outcomes from transaction experience are termed as 'transaction-specific' outcomes, and they were purified and established as valid constructs after extensive qualitative and quantitative analysis. Thus, this study contributes to the literature through the concept of transaction-specific outcomes and transaction-specific constructs.

The contribution extends to the knowledge by examining the effects of transaction experience on the transaction-specific outcomes and on transaction-specific brand equity based on consumer demographics. The moderation effect of age and of profession were considered in this research. Since the data collection for this study was designed around contactless technology, the moderation effect on the relationship between transaction experience and transaction-specific trust was analysed in this research.

Although previous researchers (Chung et al., 2010; Djafarova and Rushworth, 2017; Huaman and Merunka, 2019) have shown relationships between customer experience and trust that were moderated

by consumers' age, these were not a transaction-specific concept. On the other hand, although few studies have been conducted considering 'occupation' as a moderator (Fila et al., 2017; Fryxell et al., 1991; Landrum et al., 2010 etc), no existing literature was found on 'profession' being analysed as a moderator, especially in the marketing literature. In this study, the decision to establish 'profession' as a moderator was based solely on the qualitative study. Therefore, this study took a vital step in filling this gap regarding the customer demographic-based moderation effect.

This study examined the mediation effect of perceived reputation and brand personality, which again is a gap that existed in the literature. The mediation effect of perceived reputation between transaction-specific satisfaction and transaction-specific brand equity and the mediation effect of brand personality between transaction-specific associations and transaction-specific brand equity was examined and validated in this study. Although the mediation effect of reputation (Azadi and Javani, 2018; Islam et al., 2021) and brand personality (Liao et al., 2017; Shahzad et al., 2019) has been studied in the past, the exact relationship between transaction-specific satisfaction and transaction-specific brand equity has not been studied before; which again is a significant contribution of this particular study.

In addition to the gaps in research on the effects of transaction experience on the other constructs studied in this work, there was also little evidence regarding the effects of the transaction-specific outcomes on transaction-specific brand equity in the literature. Previous studies had examined the effect of customer experience (Conejo et al., 2017; George and Anandkumar, 2018; Hill and Brierley, 2017; Lio et al., 2017; Merrilees, 2016; Ruefenacht, 2018; Smith et al., 2017; Verma and Sharma, 2018; Woodruff et al., 1983; Zhang et al., 2017) on some of the constructs studied here, but the effects of transaction experience and transaction-specific constructs were relatively new concepts that fill the gap in the existing literature. Customer experience is one of the most important factors in the maintenance of a company's competitive advantage among its peers (Bascur and Rusu, 2020).

Furthermore, this study also contributes to the existing the literature by examining the effects of transaction experience on transaction-specific brand equity (Altaf et al., 2017; Beig and Nika, 2019; Farhat et al., 2020; Ind and Bjerke, 2007; Mascarenhas et al., 2006; Loureiro and Sarmiento, 2018; Sheng and Teo, 2012; Zarantonello and Schmitt, 2013). Like the other relationships in this study, there was little research examining the effects of transaction experience on transaction-specific brand equity. A study by Swoboda et al. (2013) poses a model that studies the importance of brand equity and how brand equity can be obtained. However, this model does not account for the sources of transaction-specific brand equity nor does it identify the consumer specific concepts such as trust, brand

associations, brand performance etc when determining brand equity which is essential for retail brand equity.

Another study later on by Swoboda et al. (2016) takes into account brand associations and other attributes of brand equity in retail but again this does not justify transaction-specific sources of brand equity. This study has taken a major step forward by exploring these effects. The study tried to analyse the relationship between these two constructs by linking the technology acceptance model (TAM) (Davis 1989) with the CBBE model (brand equity model by Keller 2003) which again is a major contribution to the marketing and brand management literature. In addition, the moderating effect of 'profession' was also shown to affect the relationship of these two constructs, which further contributes to the literature.

TAM is used in this research to study transaction experience with contactless technology. The theory explains the factors affecting customer behaviour across various technologies (Davis et al., 1989). This technique can be used to determine the various mental and behavioural drivers of intention, including attitude, subjective norms, perceived behaviour, simplicity of purchase, convenience of use, perceived enjoyment, and facilitators (Dutot, 2016). Many studies have proven the validity of the TAM in many technology-related scenarios, as attested to by Davis (1986). The variables such as perceived transaction speed, perceived transaction convenience and perceived transaction enjoyment are adopted in this study from the TAM theory to study transaction experience with contactless technology. As a result, the definition and measures of transaction experience was determined by this research. In addition, the transaction-specific outcomes of transact experience were also evaluated.

On the other hand, Aaker's (1991, 1996) brand equity theory and Keller's (1996, 2003) CBBE model were used to study transaction-specific brand equity. These two theories cannot be ignored while studying a brand equity concept as they are two of the most popular brand equity theories that exists in the marketing and branding literature (Sankaran and Chakraborty, 2023). Both the theories underline the sources of brand equity and hence, in this research the sources of transaction-specific brand equity are identified with the foundation of these two well established theories of brand equity. One major adaption for this, were the transaction-specific sources that led to transaction-specific brand equity. This is one of the major contributions in the theoretical foundation. No other existing model or theories in the literature identifies transaction-specific sources of brand equity like this particular research. Thus, it is an important contribution to the literature.

Finally, this research contributes to the existing literature by examining the overall conceptual model and hypotheses based on the technology theories TAM by Davis (1986) and extensions of TAM by Chen (2008) and Venkatesh et al. (2003) and brand equity theories by Aaker (1996) and Keller (2003). This research studies transaction experience with TAM as mentioned above, which resulted in the transaction-specific outcomes. And these transaction-specific outcomes are posed as the sources of transaction-specific brand equity with the theoretical foundation of Aaker's (1991, 1996) brand equity theory and Keller's (1996, 2003) customer-based brand equity theory.

Previous researchers had used very few theories when examining the effects of transaction experience (Chalil et al., 2020; Gupta and Kim, 2007; Herz and Taubinsky, 2018). There was very little evidence available in the literature examining these effects using the technology and brand equity theories. This research examined these effects using a theoretical model and offers a threefold theoretical contribution to the literature as a) an extension of the theory, b) in conceptualisation and measurement, and c) in theory testing and generalisation.

### **8.3.2 Methodological Contribution**

In terms of methodology, this research has made a significant methodological contribution. Due to the lack of understanding of the concept of transaction experience, mixed-methods research design was chosen, in which a qualitative method in conjunction with a quantitative method was applied (Desphande, 1983; Zinkhan and Hirschheim, 1992). The qualitative method depicted the social phenomena through human behaviour, deepened the understanding of the concept of the topic, i.e., transaction experience and its effects on the other constructs, and helped to develop or understand each of the constructs from the respondents' point of view (Desphande, 1983; Creswell, 2003; Dzwigol, 2020; Gupta et al., 2008; Foroudi et al., 2014; Scharp, 2021), while the quantitative method was used to increase the reliability, validity, and generalisability of the study (Churchill, 1979; Jiraporncharoen et al., 2021; Palanski et al., 2021; Weston et al., 2021). There was, therefore, a lack of studies on the phenomenon itself and even fewer examining this phenomenon using mixed-methods research. Hence, this contribution could contribute to knowledge and provide a better understanding of the phenomenon.

Another major contribution of this research stems from the use of structural equation modelling (SEM) using a sophisticated data analysis technique called Partial Least Squares (PLS) version 3.3.5 to examine the overall conceptual framework. PLS-SEM has become one of the most prominent statistical analysis techniques today and has been used in some of the top marketing and strategic brand management journals where they complex models were involved (Hair et al., 2021).

PLS-SEM helped in allowing the simultaneous modelling of multiple layers and also answered the set of interconnected research questions in a single accurate model in a systematic manner (Chin et al., 2010, Hair Jr et al., 2021, Hult et al., 2018; Kline, 2011). Thus, the study makes a methodological contribution to the use of PLS-SEM in social sciences research and, hopefully, makes researchers aware of a tool that will enable them to pursue research opportunities in a new and different way (Hair Jr et al., 2021). Furthermore, this study has tested a very complex conceptual framework and has tried to analyse both formative and reflective variables at the same time, which was both a challenge and a significant contribution at the same time. The transaction experience was treated as a formative construct and measured through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security; hence, this part of the model was a formative measure of transaction experience. Transaction experience was treated as a second order variable which was measured through the lower order constructs (PTS, PTC, PTE, and PTX).

On the other hand, in the rest of the model, i.e., the outcomes of transaction experience, the variables are measure in reflective approach. For the formative part of the analysis, a two-step approach was implemented which helped the researcher to firstly examine the measurement model by examining the causal associations between the observed items and the latent construct. Then, the two-way approach tested the structural model by examining the causal relationships between the observed constructs. The two-way method helped in examining this study in a very thorough manner, which can be employed as a guideline for future studies.

This study makes a major methodological contribution by using PLS-SEM, which contributed on the measurement level. Due to the nature of the analysis and the complexity of the model, SmartPLS 3.3.5 was the best statistical package for this particular model analysis (Beyari and Ghouth, 2018; Hasfar et al., 2020; Hair et al., 2021; Purwanto et al., 2019; Wibowo et al., 2021). According to Hair et al. (2017), PLS-SEM aims to test the predictive relationship between constructs by seeing whether there is any relationship or influence between these constructs. PLS-SEM testing can be done without a strong theoretical basis and is very appropriate to be used in research that aims to develop theory (Hair et al., 2017; Purwanto et al., 2019; Wibowo et al., 2021). As discussed earlier, the two-step approach and the data analysis steps like the reliability test (inter-consistency reliability and composite reliability) and validity test (convergent, discriminant and nomological validity) could be used as guidelines for future studies.

### **8.3.3 Managerial Contribution**

Based on the theoretical and methodological contribution discussed in the previous sections, the theoretical and empirical insights derived from the study have several implications as far as branding, marketing, business and retail managers are concerned. This research offers contributions for decision-makers, business developers, advertisers, and retail management who wish to understand the whole concept of transaction experience, which is a very important element of the entire customer experience journey (Gentile et al., 2007; Iman and Borimnejad, 2017; Nasar et al., 2021; Singh et al., 2020; Vuckovac et al., 2017). In addition, they will have an overall understanding of the transaction-specific outcomes and how their overall effect on transaction-specific brand equity.

In addition, they will be able to analyse and understand the relationship between transaction experience, its outcomes, and its measures (i.e., perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security) from the consumer's perspective and its effect on transaction-specific brand equity. The finding of the current research has vital managerial implications by presenting an inclusive picture of the whole situation in which creating a favourable transaction experience could lead to added transaction-specific brand equity for their business. Hence, this study makes a two-fold contribution – the first is the contribution to transaction experience and the second is the contribution to transaction-specific brand equity.

For the retail management, having an in-depth knowledge of transaction experience with new technology such as contactless payment is likely to boost their profits and reduce queuing time, resulting in efficient customer management. Thus, companies and the management should acknowledge the importance of transaction experience, which can not only produce happy customers but can also contribute to an increased transaction-specific brand equity for them. On the other hand, high brand equity levels are known to lead to higher consumer preferences and purchase intentions (Cobb-Walgren et al., 1995; Corkum et al., 2021; Vinh and Phuong, 2020) as well as higher stock returns (Aaker and Jacobson, 1994; Ajour et al, 2021) and increased customer loyalty (Joseph et al., 2020; Jeon and Yoo, 2021); which are important goals for any organisation.

For brand management, it would be easier for management to position and maintain the brand reputation of their business and manage the brand equity evenly (Mahmood and Bashir, 2020; Wang et al., 2020). This study contributes a new concept of brand equity in this field. Brand equity is one of the most important (intangible) assets for any business (Hariharan, et al., 2018; Worku, 2021), and managing and understanding the concept from every angle and in detail is very important in the

competitive market. Brand managers strive to find unique ways to establish and differentiate their brand from their competitors. Hence, whereas everything that needed to be done has been done already, they can now have a new factor to examine and focus on transaction-specific brand equity.

For marketing managers, the new concept of transaction experience is an important contribution towards customer experience management and an excellent starting point to analyse and design the overall customer experience (Chylinski et al., 2020; Hoyer et al., 2020) and to create and design promotional strategies accordingly. For the advertisers, they would then find the clues such as perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security to create unique advertising themes.

Another conclusion can be drawn from this research in regard to the differences in the mindsets between business managers and brand managers (Alaali, 2019; Singh, 2020; Valentinov and Pérez-Valls, 2021). For instance, business managers are more inclined to consider profits while brand managers emphasise building/maintaining a brand. Business managers tend more to think in economic and financial terms while brand managers will try to establish and maintain their brand and focus on the consumer perspective to attain their goal.

The incorporation of both sides of management skills and attitudes holds immense potential for any organisation and especially in retail, where there must be a balance between profit making and brand management while at the same time considering the customer point of view. This study provides managers with insights into the implications of transaction experience. Both the business development managers and brand managers need to communicate in a common language from a similar standpoint (Zimmermann et al., 2018). The findings of this study will, it is hoped, help business and brand managers to collaborate in a mutual understanding of the concept to enrich the market.

This study's findings suggest that, to achieve a competitive advantage, retailers should have a clear understanding of transaction experience (Keiningham et al., 2020; Kusumadewi and Karyono, 2019), which is influenced by four main factors: perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security. The empirical results of this study recognise the relative weighting of the antecedent constructs affecting transaction experience. Hence, retail and brand managers can easily assess how to make a transaction experience more favourable for their customers by taking care or making necessary adjustments in the factors



influencing transaction experience. By making the transaction experience favourable, they could gain ultimate customer satisfaction leading to increased brand equity for their business (Bae et al., 2020).

The concept of brand equity (transaction-specific brand equity in this case) is very important to the organization and its management (Aaker, 1991, 1996; Das, 2020; Pham, 2020), as it offers competitive advantages by reducing the marketing costs (because of high brand awareness and loyalty) to firms that enjoy high brand equity and thus enhances their earnings. This study shows the impact of transaction experience on brand equity (transaction-specific) which has always been an area of interest for organizations and their management, as brand equity (transaction-specific) gains more competitive advantage and enjoys the opportunity for successful extensions, resilience against competitors' promotional pressures, and the creation of barriers to competitive entry (Ling, 2013).

The study of brand equity is increasingly popular, as brands are one of the most valuable assets that a company has (Jeon and Yoo, 2021; Sugiyarti and Mardiyono, 2021). Building a brand-driven culture is a lifelong commitment to a mindset and a way of life that takes time, planning, and perseverance that produces intangible outputs, which include greater customer satisfaction, reduced price sensitivity, reduced customer defections, a greater share of the customer wallet, more referrals, and a higher percentage of repeat business (Knapp, 2000). Brand equity is an intangible asset built up by company over time by building awareness (Lesmana et al., 2020), having a well-known name or a clear identity, consistent communications, marketing to the consumer, acting socially responsibly, and spending on advertising and promoting the brand. However, if not dealt with carefully, there is a chance the brand equity will be destroyed over time (Keller, 2003).

This research is undertaken in the context of the retail industry but can be implemented to similar industries and to some extent to a completely different sector providing transaction experience and brand equity are involved. Although it can be argued that any given organisation cannot fully represent all sectors, according to scholars (Aaker, 1997; Churchill, 1999; Haghani et al., 2021; Van Riel et al., 1998), survey research with high external validity can be generalised to the population and across sectors. The findings of this research may thus be generalised to other industries. Apart from the contributions discussed above, this research makes some minor contribution to society, as discussed in the next section.

### **8.3.4 Social Contribution**

This research makes a small yet significant social contribution. In relation to the managerial contribution mentioned above, the retail management would strive to ensure the transaction experience for each customer is at its best, in order to achieve a greater impact on their transaction-specific brand equity. They might then install and use the latest technology to attain their objective. As a result of this, society is expected to enjoy a positive transaction experience with the latest technology of that time, which is likely to result in a modern and technology-oriented society where people can enjoy a hassle-free, speedy, convenient, and enjoyable lifestyle which is likely to add to their self-esteem and social value (Davis, 1989; Venkatesh, 2003).

Busy cities like London can surely benefit if the retailers can make the customer experience faster, more convenient, and more enjoyable for society (Whillans et al., 2018). On the other hand, using the latest technologies such as contactless pay, Apple Pay etc. are excellent examples of helping to create a greener society, as it involves energy saving, due to extremely low power consumption (Csapodi and Nagy, 2007; Madlmayr et al., 2008; Plakhtiev et al., 2021; Shigeeda, 2021).

## **8.4 RESEARCH LIMITATIONS AND FURTHER STUDIES**

This study represents a preliminary venture into the conceptualisation of transaction experience, addressing its role in building transaction-specific brand equity. However, some important limitations are relevant in interpreting some of the findings of this study for future research in terms of the method of sampling/analysis, the conceptual model, and the measurement, which are detailed below in the next sections. The research limitations and future research are discussed in two sub-sections, 8.4.1 and 8.4.2 respectively.

### **8.4.1 Research Limitations**

This study attempts to develop the understanding of transaction experience as a construct and hence, to define and measure it and to analyse the transaction-specific outcomes and the effect of transaction experience on transaction-specific brand equity. There were many interesting findings of this study, but the findings are not without their limitations. The research limitations for this study are grouped into two sub-sections: the method of sampling/analysis and the measurement level.

#### 8.4.1.1 The Sampling Method and Analysis Technique

This study has various limitations based on its method of sampling/analysis. First, this study was conducted in a single setting, i.e., research was done in the context of the UK only. Conducting the research in different settings, i.e., in other cultural contexts or different countries, could have different results and findings. Although transaction experience has not been studied so widely by researchers previously, customer experience in retail, which is a very similar context to this research, has been studied by researchers (Bagdare and Jain, 2013; Baskaran, 2011; De Keyser et al., 2020; Lin and Bennett, 2014) in various cultural settings, which seems quite promising and useful, and hence, this single setting research is noted as the first limitation for this study.

The second limitation of this study was that the data were collected only around London city and from the 32 London boroughs, because of limited resources and time. London was chosen because it is one of the busiest cities of the world (BBC Studios, 2022; Maxim, 2021) and one of the first cities to cater for technological advancement (London Data Store, 2022; Yang et al., 2021), especially in terms of contactless payment (BBC Reports, 2022; NFC World, 2022). However, it should not be assumed that the findings from the London boroughs can be generalised to other cities in the UK, such as to Manchester, Birmingham, Cardiff etc. due to the different lifestyles (Ball, 2020; Yang et al., 2023) and different technology adoption levels (Morrison et al., 2023; Vogl et al., 2020). Such variations and differences represent a major limitation in generalising the findings of this study to other cities around the UK.

The third limitation of this study was based on its exploratory research design. The study included only a small number of participants in the focus groups, which provided much insight into the beliefs and views of consumers of different ages, genders, and ethnicity. For this study, only four focus groups were conducted with six to seven participants in each group. Such a small group is unlikely to represent the entire population or to confirm the demographics or the overall findings as suggested in the exploratory study. Moreover, the study conducted semi-structured interviews with experts and focus groups of academics to explore the respondents' experiences, feelings, beliefs, and understanding about the concept of the study as well as to generate additional measurement items. Therefore, the qualitative questions were aligned to the study and have probably limited the opportunities to generalise the measurement items; further study here is also recommended.

In addition to the qualitative study limitations, the study also holds some limitations later in the quantitative phase. Within the quantitative phase, a lack of access to a complete sampling framework led this study to use a non-probability sampling technique (i.e., a convenience sample of individuals) where subjects were selected because of their accessibility and proximity to the researcher. Probability sampling methods are generally employed to enable researchers to estimate the amount of sampling error present (Churchill, 1996).

A probability sampling technique is also used to eliminate potential bias in terms of the validity and generalisability of the scales (Churchill, 1999). Owing to the lack of access to a complete sampling framework, the study used the convenience and snowball sampling techniques, i.e., a non-probability sampling technique, where the subjects were selected based on their accessibility and proximity to the researcher. Previous researchers (Churchill, 1979, 1999; Bryman and Bell, 2008; Malhotra, 2010) have suggested the benefits of using probability sampling, one of which is that it eliminates the amount of sampling error and can help in eliminating potential bias in terms of the validity and generalisability of the scales (Churchill, 1979, 1999). This insufficiency due to the use of convenience and snowball techniques is another limitation of this study.

The complexity of the conceptual model and the nature of the moderators and mediators used in the model, indicated a need to analyse the quantitative study in a different way. The statistical software AMOS could not be used to analyse the data; instead, Smart PLS 3.3.5 was used. Purwanto et al. (2020) and Zuhdi et al. (2016) suggested that the estimated coefficient values of the structural and measurement models in CB-SEM are smaller than those of PLS-SEM. In addition, AMOS is widely used by most of the academic journals for the purpose of data analysis, and it is used for large sample sizes as in this study (Chin et al., 2010; Hair et al., 2016; Kline, 2011). However, although the sample size and the data collection technique comply with AMOS analysis requirements, Partial Least Squares (PLS) was applied instead to analyse the quantitative data due to the complex nature of the model whereby both the formative and reflective constructs were to be analysed at the same time.

The next limitation for this study involves the basis of data collection. To measure transaction experience, the study was undertaken in light of contactless technology only. However, other factors, such as checkout staff experience and skills, are not considered, and neither is any other technology involved during transaction experience considered. Hence, it is another limitation of this study. On the other hand, some respondents had less experience and knowledge of contactless technology compared to others, and hence, their responses may lack validity and reliability.

Another possible limitation of this study is the weak representation of consumers' demographics, i.e., age and ethnicity. A sample chosen based on age and ethnicity was not really a true representation of the real population, which had failed to achieve few of the research's objectives and faced problems with the research generalisability (Roy and Shaw, 2016). Previous researchers (de Smith, 2021; McLeod, 2014; Merli et al., 2015; Millikin, 2016; Roy and Shaw, 2016; Stehman and Overton, 2020) have suggested the need to define sampling units and their representative clearly, before the selection of cases, in order to avoid the sampling bias and shallow findings. These sampling units were not the correct representation of the large London population, which further, had developed a limitation in this study. To overcome this limitation, a future study with a correct representation of the population is required.

#### 8.4.1.2 The Measurement Level

Apart from the limitations in the method of analysis/sampling, limitations were also found at the measurement level. Firstly, as a pioneering study in this area, this is the first attempt to explore the concept of transaction experience and investigate the outcomes that are transaction-specific. There was not much evidence to support the research work, and there was only very limited literature available to support this research. There was scarcely any transaction experience in the marketing and branding literature. It has never been studied in the light of marketing and branding, and hence, no definition or measures existed for the construct.

In addition, the transaction-specific outcomes were also another grey area that had very minimal existence in the literature. Hence, transaction experience was treated as a formative variable and measured through first order variables, such as perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security. This is, therefore, a pioneer study and is considered to have a few limitations, as it is not supported by an extensive amount of literature.

Secondly, as already mentioned, this was the first study to analyse transaction experience and examine the transaction-specific outcomes, for which the existing literature was limited. Hence, its addition to the limited literature, the researcher developed new measures and scales for transaction experience and for each of the transaction-specific constructs which were refined using the findings of the qualitative research, and then assessed using the scales for the reliability and validity by undertaking quantitative

research. In addition, due to the limited time and restricted survey size, the empirical study was conducted in a single context, i.e., London, UK. This limited the expansion and refinement of the proposed measurement scales, which could also leave the door open for future studies.

In addition, the research was done in the context of the retail industry only. Including other industries could have increased the generalisability and validity of the study. Hence, to increase the validity of the research measurement scales, future research should be attempted to study transaction experience, its measures and outcomes, and its effects. It could also be suggested that there could be limitations on the generalisability and validity of the research's measurement scales. Therefore, further research efforts are needed to expand and refine the proposed measurement scales. Moreover, the study should be replicated and extended and its scales applied to other samples to enhance its validity. Furthermore, replication in the context of other countries is also recommended.

Another limitation that must be mentioned was the Covid-19 pandemic, a limitation that was beyond the control of researcher. The pandemic had various personal, professional and methodical implications that adversely effected the study. It ranged from personal mental breakdown to data collection problems. It was very unfortunate for the researcher that the pandemic was at its peak, during the data collection phase (main survey). First the data collection had to postpone due to lockdown and social distancing issues.

During that period people were not only locked at home but also had severe mental breakdown fearing their lives and responding to a survey would have been their least possible choice of action. Even after the end of lockdown, social distancing was always a big issue for communicating with potential respondents. Therefore, there has been a big gap between the qualitative data collection phase and the main survey data collection. Therefore, there could be some implications on the design of the questionnaire which was done based on the qualitative study and using them for conducting surveys after several months.

In summary, this research investigated the relationship between transaction experience, its measures, the transactions-specific outcomes, and the consequences as perceived by consumers. A future study could possibly yield different findings from the same research scales and constructs. Although this study employed mixed methods, a wider study would increase the knowledge of the realm of the customer experience as a whole. Due to the resources available, however, this information was deemed to be beyond the scope of the current research. However, these limitations do not lessen the importance

of the present findings. The next section considers avenues for future research which would identify and aid further improvements in this area.

#### **8.4.2 Future Research Avenues**

This research studying transaction experience and its measures and the transaction-specific outcomes and their effects opens numerous possible routes for future research mainly because this study is pioneer research on transaction experience and transaction-specific outcomes. Hence, additional research is essential to add to the existing literature and further validate the results. This section provides some suggestions to extend the current body of knowledge in the literature.

In terms of measurement and study validation, the current study used a mixed-methods approach and accordingly defined transaction experience and proposed comprehensive measurement scales for the construct. In addition, the measures of transaction-specific outcomes also need further validation. The term ‘transaction-specific’ can be explored further, and transaction-specific outcomes that are not studied in this research can also be a potential area for future studies. In addition, future studies could address further the application of transaction experience and transaction-specific outcomes and validate each of the constructs, as the conceptual model was constructed based on the very limited literature that was available.

As noted from the conceptual model, transaction experience is measured through perceived transaction speed, perceived transaction convenience, perceived transaction enjoyment, and perceived transaction security. For future studies, a new way of measuring transaction experience could be explored with it being treated not as a formative variable as was done in this research. In addition, the current research considered contactless technology during data collection. Hence, for future research, a general approach could be taken, or any other technology or service technique during checkout could be investigated.

This study employed multiple constructs and measurements and is based within a retail setting in the UK. Researchers who study retail settings in the UK could explore these validated and reliable measurements further. This research represents the first attempt to conceptualise transaction experience and transaction-specific outcomes and consequences in a retail setting; hence, a future study could further develop the concept in a retail setting considering the various stakeholders (e.g., advertisers, employees, shareholders and employers).

In terms of the generalisability and validity of the measurement, studies in other regions or other cultural contexts could be considered, i.e., studies in other cities in the UK and in other countries. As was noticed earlier, the findings from London and the UK could not be generalised to other contexts; therefore, future studies should examine this topic based on other regions including other UK cities and countries. A future study could also use more consumer-based focus groups to examine the behaviour and attitudes of consumers from different backgrounds and to explore how they react to the topic of transaction experience and its effects on other transaction-specific constructs and on transaction-specific brand equity.

Another aspect of the future study could examine the topic of transaction experience and its effects using a larger sample size. It would also be preferable to use probability sampling rather than convenience and snowball techniques, which were used in this study owing to limitations of budget and time. A future study could overcome this limitation by conducting a study purely using probability sampling, to reduce sampling error and potential bias in terms of the validity and generalisability of the scales (Churchill, 1979, 1999).

Furthermore, a future study could also use a more representative sample. The sample used in this study for age and profession was not a true representative of the population, which thus caused a limitation regarding the research findings and the generalisability of the data. Moreover, future research could also examine the model based on data from marketing, branding, and retail managers, as they are the responsible and key decision makers involved in transaction experience. The current study collected data from consumers and examined the topic from their perspectives. Examining this topic from the marketing, branding, and retail management perspectives would provide more insights into creating a favourable transaction experience and adding value to their business by increasing brand equity, which could help practitioners.

Furthermore, a future study could examine the effects of transaction experience (and other constructs) by involving different retailers, different industries, and different types of consumers, and could explore the effects of transaction experience (and other constructs) on retailers of different sizes, both large and small. This could help practitioners in understanding the impact and effect of the concepts in different scenarios.

The limitations also suggest that the topic could also be examined on the basis of other consumer demographics, such as income and education. These demographic factors, like age, gender, and



ethnicity, have an equal importance in the effects of transaction experience on other transaction-specific constructs and brand equity (Al-Dmour et al., 2020). The results from future studies could also help retailers, advertisers, and marketers in examining these effects.

Finally, a future study could examine the effects of transaction experience on basic attitudinal and behavioural constructs, such as attitude towards transaction and customer experience, attitude towards advertising, attitude towards brand equity, and attitude towards retail and purchase intention. Most of the early research on a similar construct to transaction experience, i.e., customer experience, examined the effects on attitudinal and behavioural constructs (Anh, 2021; Lao et al., 2021; Roy et al., 2020).

In short, since it is a unique and pioneer study on transaction experience, there are ample opportunities and areas that could be considered for future studies, starting from a different way of defining and measuring transaction experience to measuring transaction-specific outcomes differently to show the effect of the transaction-specific outcomes other than transaction-specific brand equity. This could be considering brand equity in general or very different concepts of marketing, such as brand image, brand loyalty, customer engagement, and so on. The possible future studies could also include research using a different sample size, different research settings, and different countries. Moreover, there remain opportunities to explore an ample number of moderators and mediators within the given conceptual framework resulting in limitless future avenues with this current study as a starting point.

## **8.5 SUMMARY**

This research contributes to the existing literature by exploring the concept of transaction experience by mainly defining the construct and establishing measures for it. It further examines the transaction-specific outcomes and their effect on transaction-specific brand equity, which is the outcome of the conceptual model. This chapter has set out the study's recommendations, contributions, and limitations, as well as areas for future research. The recommendations and contributions in this chapter demonstrate its importance in the theoretical, methodological, and managerial spheres. The study has set out the uniqueness of the topic, the methods used, and the theoretical and managerial contributions made. The limitations are also detailed, including the lack of generalisability; those views were collected only from consumers; the limitations of sampling, measurements, and qualitative data; and other limitations based on the conceptual model. These limitations have helped the researcher to recommend ideas for future studies.

A future study could conduct research in a different setting given the limitations in the measurements and context of the current study. A future study could also use more focus groups to examine the behaviour of consumers from different ethnic backgrounds and could use a larger sample size and include probability sampling. In addition, a future study could include research in settings other than retail, or could consider other technologies for transaction experience apart from contactless payment or could consider factors other than technology during transaction experience, such as employee skills, layout of checkout area etc.

Additionally, it could examine the conceptual model using transaction-specific constructs other than those examined in this study. Future research could also involve other consumers from additional demographic groups, different professions, and a wide range of social status. Finally, it could examine the effects of transaction experience on other factors like brand image, brand reputation, brand/customer loyalty, service marketing, and many more. Since it is a pioneer study on transaction experience and transaction-specific outcomes with a very limited literature available, there are many unexplored areas to consider for future research. Hence, this study could be an excellent starting point for such future research.

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# APPENDICES

## Appendix 4.1. Interview Protocol

**Introduction:** My name is Kaniz Batul and I am a Doctoral student at Middlesex University. Currently I am undertaking research in Marketing and Brand Management and seek your help for the purpose. I have completed my Master's from London Metropolitan University with full merit scholarship where my concentration was Marketing.

**Aim of the research:** This study aims to explore the concept of Transaction Experience in the light of contactless technology and how it impacts on an organisation's Transaction-specific Brand Equity.

Your opinion on these issues is very important for me to understand the concept of transaction experience and transaction-specific brand equity. I can assure you that everything we talk about today will be used only for research purpose and kept completely confidential. It would be extremely helpful if you would allow me to record our discussion. Whenever you do not feel comfortable about recording something, I am happy to pause/stop the recorder. If there are issues that you may not feel comfortable talking about, we can move on to other issues or topics. Lastly, I do appreciate your involvement in this research and thank you for your precious contribution.

### About the interviewee

**Title:** .....

**Interviewee:** .....

**Position:** .....

**Personal responsibilities:** .....

**How long have you been with the company?** .....

**Date:** .....

**Are you responsible for enhancing the customer experience in your organisation? Yes/No**

**Have you been involved with the development of brand equity in your organisation? Yes/No**

### Exploring Transaction Experience

Transaction experience is set of transaction-specific interactions between a customer and the product/service provider (Terblanche and Boshoff, 2002; Gentile et al., 2007; Hoch, 2002; Kerin et. al., 1992; Meyer and Schwager, 2007), which provokes reaction (Gentile et. al., 2007) involving cognitive, affective, emotional, social (Bolton et al., 2014; Brakus et. al., 2009; Gentile, et. al., 2007; Meyer and Schwager, 2007; Shilpa and Rajnis, 2013), behavioural and physical (Bolton et al., 2014; Meyer and Schwager, 2007; Pine and Gilmore, 1998; Shilpa and Rajnis, 2013) responses evoked by transaction-related stimuli such as enjoyment, ease and speed of transaction (Brakus et. al., 2009).

<b>Research Objectives</b>	<p>a. <b>Concept of Transaction Experience</b></p> <p>b. <b>Defining Transaction Experience</b></p> <p>c. <b>Impact of transaction experience on transaction-specific brand equity</b></p> <p>d. <b>Create awareness and promote the contactless technology</b></p>	<ol style="list-style-type: none"> <li>1. Does your organisation accept contactless payments?</li> <li>2. What is transaction experience, according to you?</li> <li>3. How does having contactless payment in your organisation impact on your customers' transaction experience?</li> <li>4. Could you name some elements that are involved in a transaction experience of your customers?</li> <li>5. Could you explain how the speed of transaction (such as contactless pay) can affect the transaction experience of your customers?</li> <li>6. Could you explain how convenience (ease of payment) during a transaction (such as contactless pay) can affect the transaction experience of your customers?</li> <li>7. Could you explain how contactless pay could result in an enjoyable transaction experience for your customers?</li> </ol>
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*Hypotheses*

*Major References*

*Qualitative Questions*

**RQ1) What is the aftermath of a positive Transaction Experience?**

<p><b><i>Hypothesis 1:</i></b> A positive Transaction Experience is directly co-related with Transaction-specific Satisfaction</p>	<p>Boulding et al., 1993 Burns and Neisner, 2006 Grewal et al., 2009 Kim, 2005 Meyer and Schwager, 2007 Oliver, 1980, 1993 Sivadas and Prewitt, 2000 Verhoef et al., 2009 Woodruff et al., 1983</p>	<ol style="list-style-type: none"> <li>8. Could you explain how a positive transaction experience of your customers could make them more satisfied?</li> <li>9. How do you ensure that your customers are satisfied during their transaction experience?</li> </ol>
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<p><b>Hypothesis 2:</b> Transaction-specific Satisfaction is positively co-related with Transaction-specific Reputation</p>	<p>Davies et al., 2002 Nguyen and Leblanc, 2001 Walsh et al., 2006 Wang et al., 2003</p>	<p>10. How satisfied are your customers, with the overall perception of their transaction experience with your company for having contactless payment in place?</p> <p>11. Could you explain how the satisfaction of your customers could impact on your company's reputation?</p>
<p><b>Hypothesis 3:</b> Transaction-specific Reputation is positively co-related with Transaction-specific Perceived Value</p>	<p>Brown and Dacin, 1997 Keller, 2003 Sabate and Puente, 2003 Shapiro, 1983 Yoon et al., 1993</p>	<p>12. Could you explain how your company's reputation could influence your customers' perceived value (the perceptions of the customers)?</p> <p>13. How would you relate your company's reputation to what is perceived by your customers?</p>
<p><b>Hypothesis 4:</b> A positive Transaction Experience is directly co-related with Transaction-specific Trust</p>	<p>Dwyer et al., 1987 Ganesan, 1994 Garbarino and Johnson, 1999 Keller, 1993 Krishnan, 1996 Selnes, 1998</p>	<p>14. According to your opinion, how could a positive transaction experience, within your organisation, generate trust among your customers?</p> <p>15. Could you refer to a particular customer's experience who gained trust in contactless technology after using contactless pay for the first time at your company?</p>
<p><b>Hypothesis 5:</b> A positive Transaction Experience is directly co-related with Transaction-specific Brand Performance</p>	<p>Agarwal et al., 2003 Cadotte et al., 1987 Day 1977 Eysenck and Keane, 1990 Hui and Tse, 1996 Noble et al., 2002 Oliver 1997 Woodruff et al. 1983</p>	<p>16. According to your opinion, how could a positive experience, within your organisation, generate positive perceptions about your performance among your customers?</p>
<p><b>Hypothesis 6:</b> A positive Transaction Experience is directly co-related with Transaction-specific Brand Personality</p>	<p>Aaker, 1997 Keller, 1993 Plummer, 2000 Ranfagni et al., 2016 Shank and Langmeyer, 1994</p>	<p>17. What are the human characteristics that can be associated with contactless pay?</p> <p>18. Could you explain how a brand's personality could be created and developed through any direct or indirect contact that the consumer experiences at your organisation?</p>
<p><b>Hypothesis 7:</b> A positive Transaction Experience is directly co-related with Transaction-specific Associations</p>	<p>Aaker, 1991 Berry, 2000 Keller, 2003 Long and Swaminathan, 2006</p>	<p>19. Could you explain how a positive experience of customers, at your checkout, could become the foundation for creating positive associations about your company in the minds of your customers?</p> <p>20.</p>
<p><b>RQ2) How does Transaction Experience impact on (Transaction-specific) Brand Equity?</b></p>		



<b>Research Objective (e. Identify the antecedents to transaction-specific brand equity)</b>		
<b>Hypothesis 8:</b> Transaction-specific Perceived Value is a dimension of Transaction-specific Brand Equity	Aaker, 1996 Baldauf et al., 2003 Farquhar, 1989 He and Li, 2011 Jahanzeb et. al., 2013 Keller, 1993. Kim and Kim 2004 Malik, 2012 Martin and Brown, 1990	21. Could you explain how developing positive perceived value towards your company is important to strengthen the customer-based brand equity of your organisation?
<b>Hypothesis 9:</b> Transaction-specific Trust is a dimension of Transaction-specific Brand Equity	Aaker, 1996 Ambler, 1997 Ballester and Aleman, 2005 Blackston, 1995 Hiscock, 2001 Lasser et al., 1995 Liao and Wu, 2009 Mohamed and Daud, 2012	22. Could you explain the role of your customers' trust towards your organisation, in the development of brand equity of your organisation?
<b>Hypothesis 10:</b> Transaction-specific Brand Performance is a dimension of Transaction-specific Brand Equity	Chaudhuri, 2002 Franzen and Bouwman, 2001 Keller, 1998 Kotler, 2006 Lassar et al., 1995 Reid, 2002 Wong and Merrilees, 2007	23. Could you explain how the performance (effectiveness and a fault free transaction) of your organisation in terms of your overall payment procedure could impact on your organisation's brand equity?
<b>Hypothesis 11:</b> Transaction-specific Brand Personality is a dimension of Transaction-specific Brand Equity	Baldinger, 1996 Dyson et al, 1996 Freling and Forbes, 2005 Holehonnur et al., 2009 Keller, 1993; 2008 Lemon et al., 2001	24. Could you explain how a positive brand personality could enhance your organisation's brand equity?
<b>Hypothesis 12:</b> Transaction-specific Associations is a dimension of Transaction-specific Brand Equity	Bridges et al., 2000 Broniarczyk and Gershoff, 2003 Chen, 2001 Keller, 2003 Pouromid and Iranzadeh, 2012 Yoo et al., 2000	25. Could you explain how positive associations in your customers' minds could enhance your organisation's brand equity?  26. Could you mention some of the (transaction-specific) associations that you promote within your organisation to enhance your organisation's brand equity?

**Thank You very much for your time and cooperation. Wish you all the best in future**

<p><b>Optional Question</b></p> <p>Name 3 competitors who provide a better transaction experience than yours? How? Suggest 3 ways to ensure a unique and excellent transaction experience for your customers.</p>
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## Appendix 4.2 Focus group Protocol

### Focus Group Protocol

**Group No:** .....

**Description of participants:**

1. ....
2. ....
3. ....
4. ....
5. ....
6. ....

**Place:** .....

**Date:** .....

**Length of session:** .....

**Moderator:** .....

#### Questions

##### Ice-breaking questions

1. Will you please introduce yourself to us? (Ask all members)
2. Can you name a retailer business that has contactless payment option in place and ensures an excellent transaction experience for their customers?
3. What is transaction experience, according to you?

##### Transition questions

4. How do you think having a contactless payment option could effect on the retailer's transaction experience?
5. Could you please suggest the elements that are involved in a transaction experience.
6. Could you explain how the speed of transaction (such as contactless pay) can affect a customer's transaction experience?
7. Could you explain how convenience (ease of payment) during a transaction (such as contactless pay) can affect a customer's transaction experience?
8. Could explain how contactless pay could result in an enjoyable transaction experience for the customers?

##### Key questions

9. Could you explain how a positive transaction experience makes a customer more satisfied?
10. Could you explain how customer satisfaction would impact on a retailer's reputation?
11. Could you explain how a retailer's reputation would influence their customers' perceived value (the perceptions of the customers)?
- 12 What do you understand by the term 'transaction-specific'?
13. According to your opinion, how could a positive transaction experience with a particular retailer generate transaction-specific trust among customers?

14. What do you mean by transaction-specific trust?
15. According to your opinion, how could a positive transaction experience with a particular retailer, generate positive perceptions about its transaction-specific performance?
16. What do you mean by transaction-specific performance?
17. Could you explain how transaction-specific brand's personality/ies can be created and developed through customers' transaction experience?
18. What are the human characteristics that can be associated with contactless pay (Fun, Exciting, Cool, Laidback, Simple, Thoughtful, Status-conscious, Stylish, Sophisticated, Professionalism, Mature, Intelligent Reliable, Showy, Up-to-date)?
19. What is transaction-specific associations according to you?
20. Could you explain how a positive transaction experience of customers, at the checkout of a particular retailer, could become the foundation for creating positive associations about a the retailer in the minds of the customers?

#### **Final questions**

21. What do you understand by the term 'transaction-specific' brand equity?
22. Could you explain how a positive perceived value towards a retailer is important to strengthen the customer-based brand equity of your organisation?
23. Could you explain the role of trust towards a retailer, in the development of its transaction-specific brand equity?
24. Could you explain how the performance (effectiveness and a fault free transaction) of a retailer in terms of its overall payment procedure could impact on its transaction-specific brand equity?
25. Could you explain how a positive brand personality would enhance a retailer's transaction-specific brand equity?
26. Could you explain how positive associations in the customers' minds could enhance a retailer's transaction-specific brand equity?
27. Let's summarise the key points of our discussion (the moderator and assistant moderator give a brief summary of the responses to questions) Does this summary sound complete? Do you have any changes or additions?
28. The goal of this discussion is to understand the concept of transaction experience and its impact on transaction-specific brand equity. If you think we have missed out some points, will you please mention them?

#### **Optional Question**

29. According to your opinion, why is the study of transaction experience important?
30. According to your opinion, how important is the study of transaction-specific brand equity?

*Thank You very much for your time and cooperation.*

## Appendix 4.3 Research Questionnaire

### Aim of the research

This research is conducted by Miss Kaniz Batul, who is currently a PhD candidate and a researcher at the Business School, Middlesex University, London, UK. This study aims to examine the impact of consumers' transaction experience on the retailers' transaction-specific brand equity– an analysis into consumers' transaction experience with contactless technology, in the context of UK.

In this study you will be asked to participate in a survey concerning your thoughts and feelings about your experience (transaction) at the retailers while paying contactless. We would like to thank you for your precious time spent completing this questionnaire as part of this research project.

Your kind co-operation is essential to the completion of this project. The success of this investigation depends entirely on the data contributed by consumers such as you.

Answering the enclosed questionnaire is voluntary. Your participation and any data collected will be anonymous and the responses will only be presented in an aggregated form and no single name will be disclosed. The questionnaire will only take 10-15 minutes of your time to fill out.

Many thanks in advance for your contribution!

*Yours sincerely,*

Miss Kaniz Batul

Business School  
Middlesex University  
The Burroughs, London NW4 4BT  
United Kingdom  
020 8411 5000  
<http://www.mdx.ac.uk>

1, Have you ever paid using contactless technology?

- Yes                       No (Finalise the questionnaire)

2. Below are statements about **perceived transaction speed**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I believe that using contactless pay will improve the speed of my transaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that using contactless payment will save me time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compared to traditional payment methods, I believe that transactions will be faster if I pay contactless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am able to complete a transaction with contactless technology without spending too much time in the queue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contactless payment lets me complete a transaction quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using the contactless option will make my transaction productive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe speed is one of the most important element during my transaction experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It makes me happier if I can just 'touch and go' at the checkout.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that transactions will be slower if I pay with contactless option.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Below are statements about **perceived transaction convenience**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I believe that paying contactless is convenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is more convenient to pay with my contactless card for my travel at London underground and buses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that using contactless payment option will be hassle-free.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compared to traditional payment methods, I believe that contactless payment method is much more convenient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I find it easy and simple to use contactless payment for my transaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It takes little effort to pay with my contactless card during my transaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contactless pay makes my transaction experience smoother and more effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't have to worry about receiving the wrong change when I am paying contactless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't have to dig into my wallet for change when I am paying contactless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contactless pay is a life saver when I sometimes can't recall my pin.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Below are statements about **perceived transaction enjoyment**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Somewhat disagree</b>	<b>Neutral</b>	<b>Somewhat agree</b>	<b>Agree</b>	<b>Strongly agree</b>
I enjoy making transactions using contactless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The actual process of using contactless payment is pleasant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have fun while paying with contactless payment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think contactless methods of payments are an interesting way of making payments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that paying contactless is playful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I experienced pleasure, while paying contactless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
According to me, waiting in the queue for shorter time is joyous.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It makes me happy to be able to pay contactless when I am in a rush.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It makes me happy if someone in front of the queue pays contactless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Below are statements about **perceived transaction security**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I consider that using contactless payment is secure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't think that the information transferred by using contactless technology may be intercepted by other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think contactless technology has mechanisms to ensure the safe transmission of its users' transaction information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think contactless technology providers shows great concern for the security of any transactions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think contactless technology has enough security measures to protect my personal and financial information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have confidence in the security of my transaction using contactless technology at certain retails.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transaction security is a very important element during my transaction experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't have to worry about anyone trying to overlook my pin number while paying contactless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would only be confident with those retailers who would ensure that my transaction is safe and secure, each time during my transaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would only be confident with those retailers who would ensure that my transaction is fault free each time during my transaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Below are statements about **transaction-specific satisfaction**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
I am satisfied with my transaction experience the last time I made a contactless payment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am happy with the way contactless payment works.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am pleased to shop in retails where they accept contactless payments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would recommend my friends and colleagues to visit those	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

retailers who facilitate contactless purchase.							
I would choose a retailer with contactless payment option.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Making transactions using contactless pay is exactly what I need when I am in a hurry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer to pay contactless where possible during my future transactions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It makes me very happy to pay contactless, especially when I am rushing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paying contactless is an enjoyable experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It makes me very happy to pay contactless, when I forget my pin sometimes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am not happy with the way contactless payment works.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Below are statements about **transaction-specific trust**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Somewhat disagree</b>	<b>Neutral</b>	<b>Somewhat agree</b>	<b>Agree</b>	<b>Strongly agree</b>
Based on my experience in the past, I know the contactless payment process is trustworthy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that it is safe to use contactless cards for making transactions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that my transaction with contactless pay is likely to be safe with only some of the retailers whom I trust.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can count on certain retailers for using contactless pay when I am in a hurry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think contactless payment process is fast and reliable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that the banks issuing contactless cards have high integrity policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I will keep an ongoing habit of paying contactless at retailers whom I trust.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Only certain trustworthy retailers will promptly inform me if any problems occur during my transaction with contactless pay.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



I know the retailers who will give me full refund if there was error during my transaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My level of trust of using a contactless transaction in a retail facility is based on my previous transaction experiences with that retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
According to my opinion, younger customers are more confident to pay contactless during their transaction than the older ones.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
According to my opinion, the younger generation have more trust on any new technology such as contactless pay than the older generation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Below are statements about **transaction-specific performance**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Somewhat disagree</b>	<b>Neutral</b>	<b>Somewhat agree</b>	<b>Agree</b>	<b>Strongly agree</b>
I can expect superior performance with contactless pay from certain retailers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My transaction experience with certain retailers, using contactless payment options are trouble free.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contactless pay fits my lifestyle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel comfortable making contactless transactions with certain retailers with whom I have experience with.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adapting contactless technology is likely to increase a retailer's overall performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If my bank didn't issue me a contactless card, I would rather switch my bank.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At some of the retail shops, where I often use contactless pay, has earned my confidence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer those retailers with whom I never experienced any faulty transaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer those retailers who ensure that everything is working properly and accurately.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The staff at the checkout must be competent and careful to ensure that my transaction is safe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The staff at the checkout must be competent and careful to ensure that my transaction is accurate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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9. Below are statements about **transaction-specific associations**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Somewhat disagree</b>	<b>Neutral</b>	<b>Somewhat agree</b>	<b>Agree</b>	<b>Strongly agree</b>
I can easily recognize which cards/tags issued by the banks can be used to pay contactless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can easily recognize which card readers/terminals installed by the retailers would accept contactless payment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am aware of those retailers who facilitate contactless technology for their customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Some characteristics of contactless payment method come to my mind quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can quickly recall the symbol or logo of contactless payment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like the retailers who accept contactless payment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that the retailers who adapted contactless technology are very competitive and innovative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that the retailer that has contactless technology in place would be technically advanced.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have in my mind which retailers always try to keep up with technological advancement such as contactless pay, Apple pay etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All the associations that I have in my mind are based on my past experience with them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Below are statements about **perceived reputation**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Somewhat disagree</b>	<b>Neutral</b>	<b>Somewhat agree</b>	<b>Agree</b>	<b>Strongly agree</b>
My perception towards a retail facility is positive if it has contactless payment option in place.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I admire the retail that has contactless payment method.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I admire the banks that provide contactless cards to their customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that the queue management at the checkout can be well managed with contactless pay.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe London Underground and Buses are well managed after they started accepting contactless payment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that some retailers like M&S, Tesco, Superdrug and Royal mail have a good reputation in the market as they offer contactless pay option.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have grown to like those retailers who have adapted contactless technology more than that of any others who did not.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I intend to continue making purchases from those retailers who have contactless payment as an option over the next few years.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I am in a hurry I like to purchase using my contactless card.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that the retailers who adapted contactless technology are innovative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that the retailers who adapted contactless technology have a good long-term future ahead.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I have a positive perception about a retailer's reputation, I would recommend it to my friends and family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Below are statements about **brand personality**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Somewhat disagree</b>	<b>Neutral</b>	<b>Somewhat agree</b>	<b>Agree</b>	<b>Strongly agree</b>
I can imagine contactless technology to have a personality like a human being.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a clear image of the type of person who would use contactless pay.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think paying with contactless card is interesting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I perceive contactless technology to be reliable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I perceive contactless technology to be professional.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I perceive contactless technology to be sophisticated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I perceive contactless technology to be stylish.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If contactless technology was a human being, I would impersonalise it as a modern person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If contactless technology was a human being, I would impersonalise it as an efficient person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Below are statements about **transaction-specific brand equity**. Please indicate your general impressions while paying contactless at a retail facility.

*Tick the number that best describes your opinion.*

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Somewhat disagree</b>	<b>Neutral</b>	<b>Somewhat agree</b>	<b>Agree</b>	<b>Strongly agree</b>
I would prefer to shop at a retail that accepts contactless payment, than those who do not have it, even if they are of same type.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer to bank with the one that provides me with a contactless card, rather than a bank that doesn't.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It seems smarter to make a transaction with a contactless card.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was treated fairly, the last time I was in touch with the bank that issued me the contactless card.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contactless payment option is definitely my first choice while making quick and small payments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that contactless technology is well established in London.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I trust a retailer, I would prefer to make transactions from there more often.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would be a loyal customer to those retailers who has a better performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would admire a brand with a positive personally as like as I would admire a person who has good personality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that positive transaction related associations are likely to add value to a retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I fall in love with a brand or a technology like contactless, I would get attached to it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If I fall in love with a brand or a technology like contactless, I would recommend it to my friends and family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would make transactions at a retail even if I don't have trust on it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. How would you describe transaction experience?

.....  
 .....  
 .....

14. How important is transaction experience according to your opinion? Why?

.....  
 .....  
 .....

15. What can a retail do make their customers' transaction experience unique?

.....  
 .....  
 .....

**A FEW THINGS ABOUT YOURSELF**

**In order to get fully understanding about your opinion about transaction experience, please answer the following questions.**

1. Your gender      Female                      Male

2. Your age (years):    15-20                      20-25                      25-30                      30-35                      35-40  
    40-45                      45-50                      50-55                      55-60                      60-65

4. Please specify the most appropriate option below that indicates your profession: (tick only one).

I am currently employed

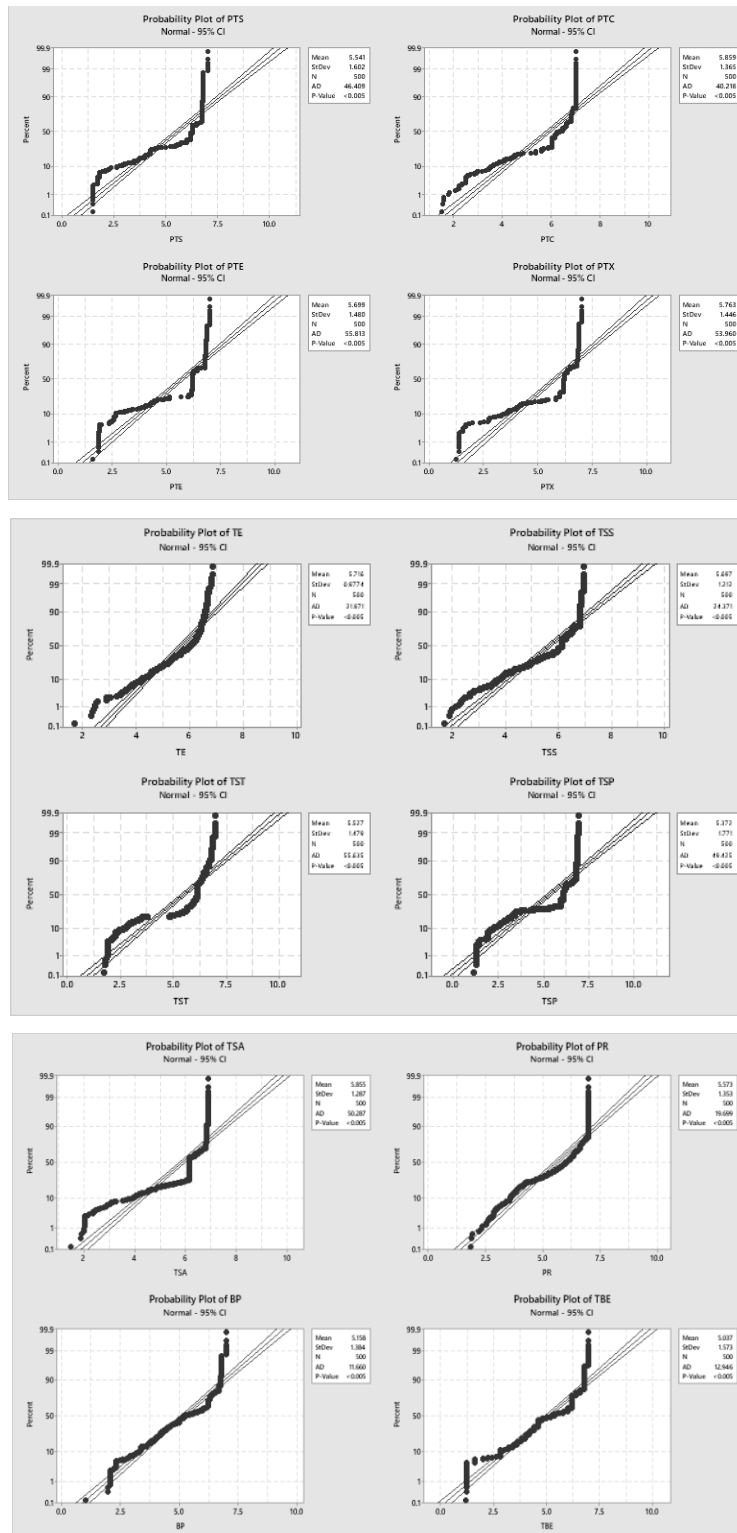
- Top executive/Manager
- Owner of a company
- Lawyer, dentist or architect etc.
- Banker
  
- Retail Worker
- Office/clerical staffs
- Bus driver/London Underground staff
- Other

I am not employed

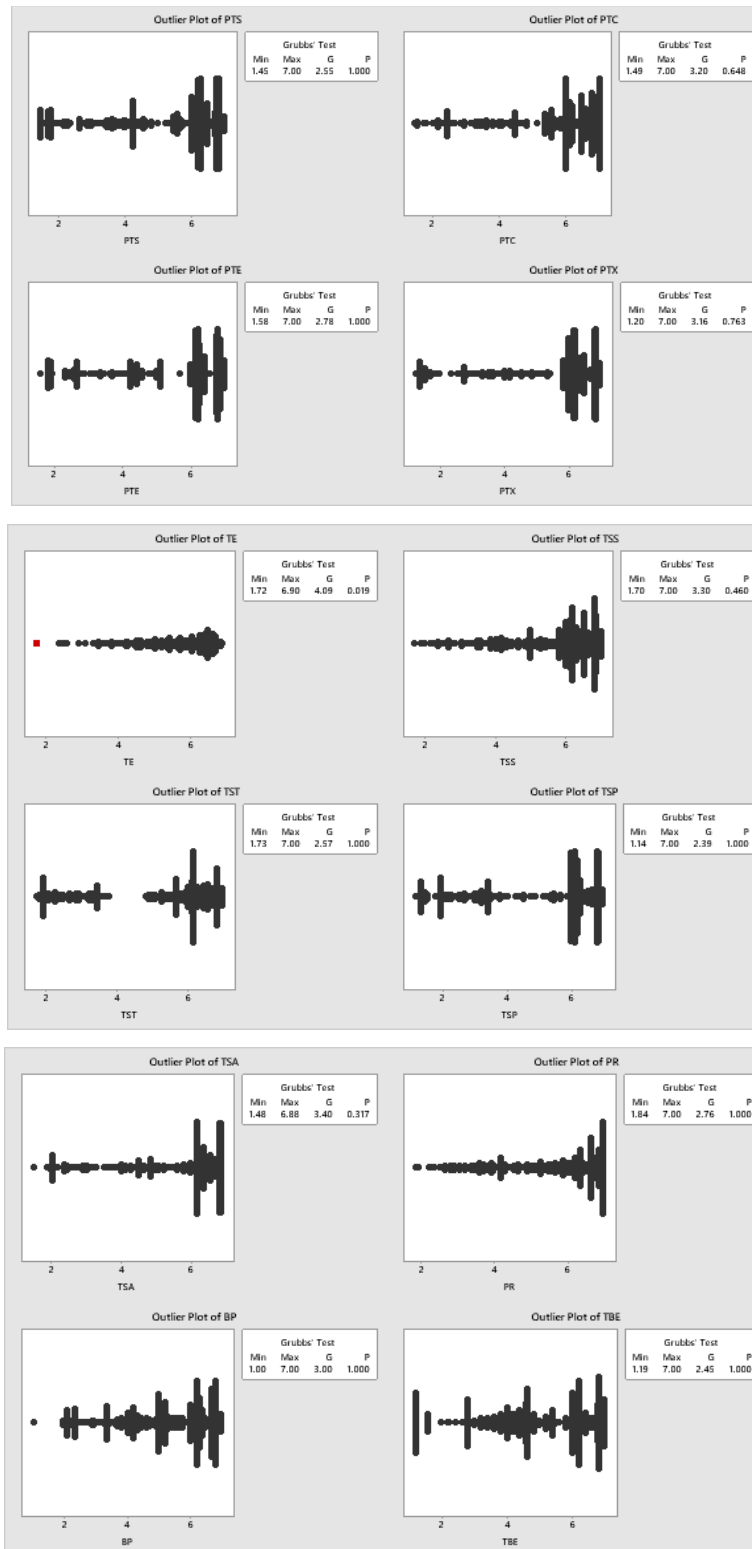
- Student
- House wife
- Retired
- Other

I would like to **thank you** again for your kind cooperation and your valuable time.  
 The sequence of the questions was based on recommendations by Krueger (1994)

## Appendix 6.1. Normal plots



## Appendix 6.2 Univariate Variables



### Appendix 6.3 Grubbs' Test for Outliners

Variable	N	Mean	Std Dev	Min	Max	G	P
PTS	500	5.5412	1.6023	1.45	7	2.55	1
PTC	500	5.8595	1.3647	1.49	7	3.2	0.648
PTE	500	5.6995	1.4803	1.58	7	2.78	1
PTX	500	5.7626	1.446	1.2	7	3.16	0.763
TE	500	5.7156	0.9774	1.72	6.9	4.09	0.019
TSS	500	5.6971	1.2123	1.7	7	3.3	0.46
TST	500	5.5266	1.479	1.73	7	2.57	1
TSP	500	5.3722	1.771	1.14	7	2.39	1
TSA	500	5.8549	1.2875	1.48	6.88	3.4	0.317
PR	500	5.5733	1.3526	1.84	7	2.76	1
BP	500	5.1578	1.3842	1	7	3	1
TBE	500	5.0368	1.5731	1.19	7	2.45	1



### Appendix 6.8: Rotated Component Matrix

Rotated Component Matrix <sup>a</sup>											
	Component										
	1	2	3	4	5	6	7	8	9	10	11
PR_7	.906										
PR_11	.871										
PR_8	.860										
PR_6	.830										
PR_12	.812										
PR_10	.809										
PR_4	.809										
PR_2	.781										
PR_1	.746										
PR_3	.692										
TST_1		.898									
TST_2		.886									
TST_5		.862									
TST_6		.860									
TST_3		.858									
TST_7		.827									
TST_9		.769									
PTX_2			.930								
PTX_6			.930								
PTX_5			.929								
PTX_4			.924								
PTX_1			.908								
PTX_3			.900								
TSP_4				.923							
TSP_7				.912							
TSP_8				.912							
TSP_3				.905							
TSP_9				.901							
TSP_5				.889							
PTC_5					.910						
PTC_9					.899						
PTC_4					.875						
PTC_1					.865						
PTC_3					.865						

PTC_2					.839						
TSA_7						.898					
TSA_8						.895					
TSA_10						.892					
TSA_1						.864					
TSA_4						.858					
TSA_5						.855					
TBE_11							.940				
TBE_10							.928				
TBE_9							.924				
TBE_7							.901				
TBE_12							.891				
TBE_1							.651				
TSS_8								.832			
TSS_7								.816			
TSS_4								.815			
TSS_6								.813			
TSS_3								.812			
TSS_2								.722			
PTE_1									.899		
PTE_9									.889		
PTE_3									.879		
PTE_4									.855		
PTE_2									.850		
PTS_1										.916	
PTS_3										.899	
PTS_5										.862	
PTS_2										.856	
BP_7											.874
BP_2											.870
BP_8											.836
BP_5											.798
Extraction Method: Principal Component Analysis.											
Rotation Method: Varimax with Kaiser Normalization.											
a. Rotation converged in 6 iterations.											