

When Function Meets Emotion, Change Can Happen: Societal Value Propositions and Disruptive Potential in Fintechs

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Abstract

Fintechs, as providers of digital service innovations and as highly relevant and novel channels through which to deliver entrepreneurial finance based on the creative use of state-of-the-art technology in the financial domain, have thus far mainly been addressed in research by examining the functional aspects of their value propositions. This paper thus sets out to gain insights into the interplay and overall role of societal value propositions as potential antecedents and change catalysts in the formation of the often promised disruptive potential of fintechs for the financial sector. In an inductive, theory-building approach, the authors first examine how societal value propositions transcend individual functional and emotional ones for entrepreneurs, and conclude with a conceptual model of how the former can build up the disruptive potential of fintechs and deliver apt solutions for entrepreneurs seeking finance.

Keywords

value propositions, entrepreneurial finance, FinTechs, disruption, societal value

Introduction

“Fintechs” is a newly minted term that depicts innovative, digital financial solutions, which are based on advanced technologies rooted in recent developments in data science and artificial intelligence (AI). Because of their highly innovative business models and lean structures, they offer tailored and readily accessible financial solutions for large parts of society. For entrepreneurs seeking finance, fintechs promise better access to funding and efficient payment services through, for example, novel ways of risk assessment, 24-hour online chatbots with advanced data analytics, cryptocurrencies for instant payments and foreign exchange, and AI-based web and mobile applications.

According to a service-dominant logic (Beynon et al., 2018), digital service innovations (DSIs) offer a chance to establish disruptive potential (Snyder et al., 2016). According to Christensen et al. (2015), disruption takes place when “*mainstream customers start adopting a new product or service in volume*”. To achieve this, researchers emphasise a customer-centric view of value creation (Vargo and Lusch, 2004) and see value propositions (VPs) as central drivers of DSIs (Skálén et al., 2014). These VPs should focus on what customers truly value and combine an individual as well as a societal dimension (Anderson et al., 2006).

Christensen’s (1997; 2015) approach is sometimes criticised for restricting drivers of disruption to a merely functional perspective (Danneels, 2004; King and Baarartogtokh, 2015). Such functional perspectives could, for example, be the provision of easier access to loans for entrepreneurs or managed global payment services that allow young ventures to tackle international markets (Vaznyte and Andries, 2019). Theory on disruptive innovations takes up the shortfall and emphasises a more holistic approach (Kilkki et al., 2018; Zhukov et al., 2018; van den Broek and van Veenstra, 2018). Lindič and Marques da Silva (2011), for example, highlight the positive effect of both functional and emotional values in reaching long-term customer satisfaction. An even broader approach is adopted by Schuelke-Leech (2018), who explores how technological disruption can happen on a societal level by examining organisational structures and relationships (Schuelke-Leech, 2018).

In terms of innovation (Kraus et al., 2019), only a few researchers examine more deeply the role of VPs from a contextualised view; literature mainly frames them as a multiple stakeholder service ecosystem (Roundy and Bayer, 2018) or examines them from a platform perspective (Frow et al., 2014; Ballantyne et al., 2011). Insights into how a potentially disruptive composition of VPs can appear in detail, or whether and how a special combination of value propositions can evoke synergies on a societal level, remain a gap (Lindič and Marques da Silva, 2011; Frow et al., 2014), despite groundbreaking work from some scholars.

At the same time, the emergence of fintech companies (FTs) as digital service providers has triggered a flood of articles dedicated to identifying success factors (Nicoletti, 2017) and innovative potential (Puschmann, 2017). Similar to service innovations as a whole, early evidence concerning success factors and innovation mostly

follows a purely functional approach based on technological progress (Nicoletti, 2017; Gozman et al., 2018; Gomber et al., 2018), with little insights into their emotional or societal VPs. While their role as innovative providers for entrepreneurial finance, e.g. through the clever use of blockchain or artificial intelligence technologies (Owen et al., 2019), has already been recognised, the importance of their corresponding societal value propositions for the sustainable success of fintechs has not been overly addressed thus far, apart from an early discussion surrounding crowdfunding as entrepreneurial financing for innovations (Lehner and Harrer, 2017; Lehner et al., 2015).

This paper therefore sets out to explore the role and interplay of functional, emotional and societal VPs in the formation of disruptive innovations, based on FTs as subjects, starting with existing findings and combining these with additional insights from 32 in-depth qualitative case studies from the field in order to build theory. Therewith, the authors contribute to theory on disruptive innovation in the context of entrepreneurial finance (Cole et al., 2019; Block et al., 2018; Cumming and Groh, 2018) by providing fine-grained insights into how the formation of such disruptive potential is connected and driven by proposed societal values (Lehner and Harrer, 2017) and how these, in turn, are being built up by functional and emotional VPs for entrepreneurs.

Theoretical background

Lusch and Nambisan (2015) define service innovation as the “*rebundling of diverse resources that create novel resources that are beneficial (i.e., value experiencing) to some actors in a given context*” (p. 161). Customers can be seen to be active actors within the innovation process (Prahalad and Ramaswamy, 2000), perceiving and determining value on the basis of “*value in use*” (Vargo and Lusch, 2004; Nieuwenhuis, 2018). In this context, digital technologies have been recognised as playing a dual role, as enablers and initiators for digital service innovations (hereinafter referred to as DSIs) (Lusch and Nambisan, 2015). For example, digital infrastructure enables the generativity of platforms upon which actors are able to innovate. Additionally, new information and communication technology can directly trigger innovation by becoming a part of new service offerings through digitalisation. Digital infrastructure and platforms combined with other resources established in networks of co-creation (such as skills and knowledge) support value-creating transactions (Baldwin and Woodard, 2008), which link them to the concept of service ecosystems (Eaton et al., 2011).

A disruptive innovation can be seen to be a process in which often smaller companies with fewer resources successfully target low-end customers by delivering more suitable functionality at a lower price compared to incumbent competitors, based on Christensen (1997). However, this definition is partly criticised by other researchers for its narrow framework, limiting disruptive opportunities to a mostly functional perspective (Danneels, 2004; King and Baarartogtokh, 2015). Schuelke-Leech (2018) follows up and introduces two levels of disruptive technologies which can readily be adopted with respect to the issue of DSIs. She distinguishes between first-order disruptions, as a localised change within a market or industry (reflecting Christensen’s (1997) approach),

and second-order disruptions, *affecting society on a macro level by substantially changing societal norms, institutions and structures.*

The promise and creation of value is undisputedly the heart of any (disruptive) innovation. Consistent with a service-dominant mindset (Vargo and Lusch, 2004), it is customers who finally perceive and determine value in their experience; firms can only propose values, which Lindič and Marques da Silva (2011) see as catalysts for customer-focused innovations. Skålén et al. (2014) define VPs as “*value creation promises created either by the firm independently or together with customers and other actors through resource integration based on knowledge and competences*” (p. 139).

Values can be proposed on different levels. Bohnsack and Pinkse (2017), for example, argue that the use of information technology in addressing unmet mainstream customer needs presents points of superiority where new market entrants outperform incumbents. However, emotional value propositions (VPs) (Hirschman and Holbrook, 1982) and hedonic benefits on top of (functional) utilitarian ones are seen to be crucial for the acceptance and prolonged use of technology (Venkatesh et al., 2003) and, thus, an underlying enabler for service innovations. Sandström et al. (2008) argue that VPs based on physical/technical enablers (e.g. underlying technologies) support the creation of functional and emotional VPs. While functional VPs mainly support initial adoption, which is, in turn, highly influenced by the price of a new service, emotional VPs are responsible for creating attitudes towards the service and, thus, represent drivers of user acceptance and continuous usage (Obal, 2017). Fisher et al. (2017) additionally find legitimacy (a form of crowd-matched societal value proposition) to be an essential determinant for overcoming the liability of newness for new ventures, and characterise mechanisms of legitimacy building that can establish an emotional connection with customers in a first attempt to transcend the individual to the societal level. Social values and the “radical innovativeness” of an idea are fundamental drivers of legitimacy (Drury and Stott, 2011) and are built up through complex interplay between individual values and public discourse (Lehner, 2013). To ignite public discourse and reach mainstream customers, VPs need to be communicated accordingly (Ballantyne et al., 2011; Anderson et al., 2006). Following this, the authors use *communication*, besides VPs, as another important perspective in our model so as to achieve mainstream adoption and legitimacy of the innovative services.

To sum up, there is a clear gap where the literature theory does not embrace the wider causal chain of functional, emotional and societal value propositions of digital service providers. To explore this, the authors choose FTs as subjects representing timely providers of potentially disruptive innovation in the entrepreneurial financial landscape with the potential to affect various industries and markets (Zetsche et al., 2017) at the same time.

Fintechs as DSI subjects

The term “fintech” comprises the abbreviations (and is an amalgamation) of “financial” and “technology” (Gomber et al., 2017) and is defined by Schueffel (2016) as “*new financial industry that applies technology to improve financial activities*” (p. 45). Various

papers and reports have been dedicated to research on FTs, examining amongst their evolutionary formation (Haddad and Hornuf, 2018; Arner et al., 2015) their functional classification (Nicoletti, 2017) as well as various other functional as well as non-functional dimensions (Gomber et al., 2017; Gimpel et al., 2017). Researchers have already put much effort into identifying related business models (Schmidt et al., 2018; Eickhoff et al., 2017), success factors (Lee and Teo, 2015; Nicoletti, 2017) and innovation potential (Puschmann, 2017; Gozman et al., 2018; Gomber et al., 2018). Nicoletti (2017), for example, expands upon the *LASIC* components presented by Lee and Teo (2015) and defines customer-centricity, low-profit margin, agility, scalability, security management, innovation, and ease of compliance (*CLASSIC*) as the critical success factors in creating a sustainable fintech business model. Gozman et al. (2018) characterise FTs' core services, business infrastructure and underlying component technologies and analyse how FTs synthesise different technologies to restructure flows of financial information through competitive and cooperative mechanisms of disintermediation, extension of access, financialisation, hybridisation, and personalisation. These mechanisms are also especially relevant when it comes to the promise of fintechs in a business-to-business context such as entrepreneurial finance, as it means cheaper and quicker access to finance, more efficient payment services, better insights into financial data, less and partly AI-driven intermediaries and, in general, a more direct access to financial suppliers (Owen et al., 2019; Block et al., 2018; Cumming and Groh, 2018). Gomber et al. (2018) present a fintech innovation-mapping approach that explains changes in service operations, payments, deposits and investments as being driven by technological transformation.

Summing up current literature, and similar to the realm of service innovations as a whole, what is missing thus far is an in-depth analysis of the structural composition of VPs of fintechs and their role in the formation of disruptive potential. Four major research streams on the microfoundations of innovations in fintechs can already be identified in the literature: *data science*, *blockchain*, *co-creation* and *customer experience* (Owen et al., 2019). These will be discussed in more detail in the next few paragraphs together with their inherently proposed values to potential customers.

FTs apply *data science* to analyse customers' preferences and create tailored solutions meeting functional customer needs. Data, which is widely seen to be "the new oil" (Roletta, 2012) in digital ecosystems, in combination with new technologies that enhance its exploitation, is a core matter for business models of FTs (Schmidt et al., 2018). Big data enables the creation of value by improving financial services or creating new offerings (Gai et al., 2018). Scholars are frequently elaborating upon financial robo-advisors as one practical example of data-driven artificial intelligence being applied in financial investment management (Jung et al., 2018; Salo and Haapio, 2017; Tertilt and Scholz, 2017; Jung et al., 2017). While services of incumbent investment intermediaries seem to remain overly complex (Philippon, 2015) and expensive (Edwards, 2018; Judget, 2015), robo-advisory FTs try to respond to a growing consumer demand and are highly attractive for less privileged investors with ambitions to participate in the financial markets. Other examples of data science use cases include new authentication and access control mechanisms (Gai et al., 2018), algorithms for pattern recognition, artificial advice, ESG portfolio building, and alternative risk and insurance evaluations (Mezei et

al., 2018; Leong et al., 2017). Rizk et al. (2017) already combine DSIs with big data analytics in their general review and research agenda presenting insights that fit well with FTs as providers of DSIs.

Blockchain (Owen et al., 2019), a distributed ledger technology, offers exciting new opportunities for FTs to create an innovative digital infrastructure. It allows the fully transparent and highly distributed storage of encrypted data (Mills et al., 2016; Pinna and Ruttenberg, 2016) with fast global access. In the payment industry, blockchain is thus said to enable low-cost, straight-through transactions without delaying staging posts (Schlegel et al., 2018). Blockchain technology offers infrastructure characterised by low transaction costs and, thus, reduces the cost of networking (Catalini and Gans, 2017).

In terms of emotional value propositions, FTs adopt a customer-centric approach and a *co-creation* mindset in order to deliver *hedonic customer experiences*. Relevant research has mostly been dedicated to the design of customer interfaces (Salo and Haapio, 2017), the usage of gamification elements (Gozman et al., 2018), and the service offering via mobile applications (Lee, 2017; Kim et al., 2016). Researchers have paid substantial attention to the realm of gamification lately, examining it in the context of service marketing and banking in order to find ways in which to optimise customer experience (Wolf et al., 2018; Baptista and Oliveira, 2017; Huotari and Hamari, 2016; Rodrigues et al., 2016; Conaway and Garay, 2014). Deterding et al. (2011) define gamification as “*the use of game design elements in non-game contexts*” (p. 2). The desire for gamification lies in three physiological and intrinsic customer needs: the need for competence, the need for autonomy and the need for social relatedness (Sailer et al., 2017). Gamification elements, for example, can facilitate financial education of customers as well as their active engagement (Gozman et al., 2018), and social relatedness is strongly related to a co-creation mindset that comprises a trend towards open innovation (Catalini and Gans, 2017) and service platforms (Leong et al., 2017; Havrylchyk and Verdier, 2018).

Methodological considerations

The authors selected a purposeful sample of 32 salient fintech cases with high, media-ascribed, disruptive potential from fintech rankings obtained from Forbes Magazine (Novack, 2018; Sharf et al., 2016), KPMG, and H2 Ventures (Pollari, 2015; Pollari, 2016; Miller, 2017). The final case selection was based upon the criteria of being either exemplary (meaning typically as presented in the media) or exceptional (examples of outstanding performance as presented in the media) (Uy et al., 2010), concerning their disruptive potential and success thus far. This was carried out via a coding and scoring scheme by both authors independently in order to increase intercoder reliability.

The sample covers a large geographical (USA: 12, China: 5, UK: 5, and others: 10) and service category spectrum that seems to be especially relevant also for entrepreneurs:

- Payments: 11
- Lending: 10

- Investment: 4
- Insurance: 3
- Others: 4

All FT cases are listed and briefly presented in Appendix A, which can be downloaded via the following link: <https://tinyurl.com/fintech-value>. The selected FTs offer financial services to start-ups, single entrepreneurs, and small businesses in their business creation and, in addition, provide many value propositions for other individual market participants.

The sources for the data collection included videos providing product and business information and interviews with fintech founders and employees, a media analysis of highly relevant news providers in the fintech sector, reports of the Big Four advisory firms, individual document retrieval, and an analysis of blogs and press releases. Overall, from the screening of our initial selection of more than 200 resulting documents, 160 were finally selected for further analysis. A full list of the documents can be downloaded by using the link above. The data was then coded following proven techniques (Denzin and Lincoln, 2003) in an iterative and recursive approach. Therein, the authors followed Saldana's (2009) recommendation of provisional coding and starting with an a priori set of codes based on the examined literature, as well as Almquist's (2016) elements of the "value pyramid". These a priori codes (mainly functional VPs) were first anchored in the empirical data, so as to demonstrate the validity of our case selection, and then expanded inductively with postulated a posteriori VPs on an emotional and societal level. Furthermore, the authors inductively established the themes "interplay" and "communication" as well as "disruptive potential". In order to reduce researcher bias and enhance validity, the two authors continuously and critically discussed and reflected upon the coding scheme applying intercoder reliability schemes. However, as is the case in qualitative research, it is acknowledged that the selection and interpretation of text fragments ultimately is hermeneutic and inherently contextualised.

Finally, the authors followed Cornelissen's (2017) suggestions and built five individual propositions from the findings in order to "*formalize contingencies around a subject into basic cause-effect relationships that act as broad signposts and implications for further research*" (p. 3), before conceptualising these into a holistic model of VPs and the formation of disruptive potential for FTs.

Empirical findings

Functional value propositions

As expected from the literature, fintechs (FTs) exposed the following functional VPs: simplify and accelerate; support and inform; automatise and save; integrate; and connect individuals. To demonstrate the ecological validity of our cases, these a priori themes are anchored in our data in the following sections:

Simplify and quicken. Providing descriptive videos, guidance, simple interfaces, and application forms, FTs not only facilitate but also accelerate customer processes. Kabbage, for example, guarantees automatic loan approval (also for small entrepreneurs) within 10 minutes for up to \$150,000, so that customers can start using funds immediately. FTs such as Xapo or Coinbase provide blockchain-based cryptocurrency wallets offering quick and straight-through (global) transactions. This is especially relevant for young ventures that try to start globally. Most fintechs deliver their services via mobile apps, representing a fast-access channel to services. FTs seem to fulfil customers' requirements in respect of frictionless services that fit their busy schedule.

Support and inform. FTs provide detailed and straightforward service information and financial education. As an example, the investment FT Robinhood promotes commission-free transactions and anticipates questions by informing customers in detail about how they themselves make money on their website. Information and support for customers are often available 24/7 through fintech applications and often powered by artificial agents and chatbots. By providing open and comprehensible information, FTs try to deliver feelings of reliability and authenticity, for which customers and young ventures are searching in the jungle of financial service providers.

Automatise and save. Process automatization through technological progress is applied by FTs to provide highly valued services at a fundamentally lower price. Robo-advisors, for example, offer automated, algorithm-driven financial planning in order to manage even smaller portfolios at an affordable cost. Other FTs have established innovative business and revenue models to reduce fees in trading and payment, whereby attracting mainstream customers. Transferwise, for example, acts as an intermediary by connecting individuals with opposite currency exchange demands so as to avoid costly global money transfers. This, for example, allows young ventures to hold multiple currencies with ease and through the additional services offered, entrepreneurs can mimic the services of the vastly more expensive and knowledge-intensive treasury departments of larger firms by making clever use of such applications and technology.

Integrating data and services. FTs are blending services and data sources that were previously separated. Customers profit from convenient one-stop shops that offer solutions for any financial need. As an example, Alibaba's subsidiary Ant Financial comprises several firms that cover services in payments (Alipay), lending (Sesame Credit), banking (MYBank) and investment (Ant Fortune, Yu'e Bao). Revolut extended its offer and combined payment, cryptocurrency, currency-exchange and insurance services into one application. FTs gather and combine information from various sources, helping them to improve their data models and better align their offers with customers' needs. The innovative use of mobile phone cameras, video chatting and scanning abilities in the identification of a customer may be another example. For entrepreneurs this allows them to easily set up a credit-monitoring system for their clients without the hassle and paperwork of large accounting departments.

Connecting individuals in the financial systems. FTs often act as intermediaries or platforms with which to connect individuals. Blockchain technology is used to provide decentralised money transfers, and peer-to-peer interactions enable individuals to better

match offers and demand. The most prominent examples of connecting intermediaries are crowdfunding platforms such as the FT OurCrowd, which provides a network that matches early-stage entrepreneurs and investors. This aligns well with O'Dair and Owen (2019), who examine how the rapidly developing area of blockchain finance provides a potential opportunity for new creative ventures to obtain external investment funding and generate revenue, or Lehner and Harrer (2017), who examine crowdfunding platforms as super-catalysts in an entrepreneurial ecosystem.

Summing up the insights above, the authors identify Proposition 1:

P1: The availability and recent maturation of data science and blockchain technology act as a connector, enabler and initiator in driving functional VPs for FTs (see P1 in Fig. 1).

Emotional value propositions

Although some codes, particularly gamification, were already known a priori and again were simply validated, literature did not hold much more on emotional VPs in FTs and DSIs. Therefore, the rest of the codes were found inductively and postulated a posteriori, leading to the following: gamification for entertainment and reward; serious elegance and aesthetics; and lowering frustrating barriers.

Entertain and reward. Scanning the fintech cases, the authors identified (amongst monetary rewards) scores and performance graphs as gamification elements that were implemented in services. Oscar and Clover Health, two insurance-based FTs, reward customers by offering discounted rates to those who remain active and on top of their health. As another example, investment FTs offer sandbox-like experiences wherein customers can play with their budgets and test investment strategies. This may be especially relevant for entrepreneurs able to test and simulate their approaches. Sofi offers a reward for customers in combination with an entertaining card game called “SoMoney”, which should encourage a more open conversation about finances among customers. FTs seem to jump on the gamification trend, delivering feelings of competence, autonomy and enjoyment that can strengthen their customers’ active engagement.

Offer aesthetic pleasure and delight through serious elegance, clarity and aesthetic design. Interestingly, 16 of the 32 investigated FTs use the colour blue in their design. The colour blue stands for cool, silence, respectability, seriousness and trust (Moser, 2012). In general, FTs tend to use a very structured, simple, professional and appealing design which demonstrates high aesthetic value. The microloan FT Affirm was even honoured with Fast Company’s 2017 *Innovation by Design Award* in the category of mobile apps and user experience. Talking to entrepreneurs, they appreciate the ease of use and aesthetic guidance that innovative fintech applications provide. The cognitive effort of using complicated forms and following alien workflows in traditional financing processes is vastly reduced by the design of these applications.

Promise to overcome frustration. FTs open the capital market for those that have not been served as of yet. They integrate data from e-commerce and social media

with the data provided in the application process of customers, and make use of alternative risk evaluation methods. FTs are thus lowering barriers to entry by reducing or removing minimum investments or outdated formal requirements. By offering clear and transparent information and guidance, FTs reduce anxiety and invite more people to actively participate in the financial market. For young entrepreneurs in need of finance, who suffer from the liability of newness but typically have highly relevant ideas, such alternative access to finance based on modern instruments is a welcome and refreshing change from the traditional landscape.

Summing up, the authors identify Proposition 2:

P2: FTs create positive customer experiences through networking and co-creation with customers and other entrepreneurs as emotional VPs (see P2 in Fig. 1).

Communication and societal value propositions

Examining FTs from a societal perspective, the functional and emotional VPs that have been addressed thus far in the literature on the level of individuals and have been anchored in our empirical data will affect society as a whole, given a macro perspective, and thus transcend the individual level. Such a societal perspective needs to include discourse and power as subjects of inquiry and, consequently, communication was found to be a moderator of VPs on all levels in our coding.

FTs provide transparent and straightforward information on their services and functions. They use simple and short videos and aesthetically inviting webpages to translate and spread their VPs. FTs are actively communicating their emotional values through signals, e.g. how and why they are lowering entry barriers. The resulting emotional effect is especially enhanced by two-way interactive communication with testimonials and all sorts of viral social media use. FTs include user-generated content in order to foster authenticity, thus attracting more mainstream customers. As an example, OurCrowd provides a platform for success stories of entrepreneurs so as to deliver functional and emotional values to differing audiences, and provides tools for the translation of value through the narratives. In addition, chatbots, being available 24/7, deliver feelings of closeness and connection while making use of geography-specific cultural capital.

Summing up, the authors identify Proposition 3:

P3: FTs scale up their VPs and influence public discourse by offering two-way interactive communication channels with inherent localised and technology-driven value translations (see P3 in Fig. 1).

Taking into account this communication and its impact on societal discourse, our now purely inductive a posteriori coding on societal VPs was summarised in the themes of Empowerment and Inclusion, with Table 1 providing an overview including the five societal values that they create: financial inclusion, independence, affiliation, self-actualisation, and doing good.

Table 1. Societal VPs (created by inclusion and empowerment)

#	<i>Societal VPs</i>	Empowerment	Inclusion
1	<i>Financial Inclusion</i>	-	Access to financial services
2	<i>Independence</i>	Financial literacy, general awareness	Access to information
		Re-intermediation	Transparency
3	<i>Affiliation</i>	-	Access to networks and communities
4	<i>Self-actualisation</i>	Self-efficacy	Access to infrastructure, information and capital
		Motivation	
5	<i>Doing good</i>	Self-efficacy	Access to markets
		Motivation	

Financial inclusion. Combining the emotional VPs of lowering barriers with a range of functional VPs for those who have thus far been the underprivileged parts of society, financial inclusion (Atiase et al., 2019) (as a truly societal VP) can be created. This societal value is well reflected in current literature that sees FTs as potential drivers (Leong et al., 2017; Lee and Teo, 2015). As an essential determinant for an inclusive society, financial inclusion is defined by Dev (2006) as “*delivery of banking services at an affordable cost to the vast sections of disadvantaged and low-income groups*” (p. 4310). New ways of serving and reaching potential customers contribute to a change in the availability of finance (McCaffrey and Schiff, 2017). While FTs often mainly attract young urban users as early adopters (Gulamhuseinwala et al., 2015), their services ultimately facilitate funding and services such as money transactions for entrepreneurs and customers alike (also in developing countries) with low-risk equivalents and low effort. This is highly important and attracts the underprivileged parts of society (GSMA, 2017) who often try to overcome poverty through entrepreneurial initiatives. The authors found that FTs are often offering financial services to those who have not been served by traditional financial service providers as of yet. Integrating data of various non-financial sources, FTs build innovative algorithms for risk evaluation. Sofi, for example, provides capital to entrepreneurs who may lack a credit history but provide excellent scoring based

on alternative data. Others use crowdfunding strategies to provide alternative capital sources. FTs lower entry barriers by deleting thresholds and reducing transaction costs. Using cryptocurrencies based on blockchain technology, FTs further enable quick and (nearly) costless payment transactions even for those customers who do not have a bank account. Robo-advisors offer younger, less affluent and less investment-savvy customers ways in which to join the investment game. M-Pesa, as the most prominent fintech operating in developing countries, enables low-cost mobile money transactions, replacing uncertain, expensive and time-consuming transfer procedures. There are insights according to which M-Pesa alone has propelled entrepreneurship in these countries tremendously, because the provided financial infrastructure greatly reduces the transaction costs and, thus, improves the functioning of markets. Moreover, FTs provide opportunities to transfer and store money safely.

However, the term “inclusion” must not be restricted to the delivery of financial services to underserved parts of society including young ventures, which build the focus of this study. The authors found FTs to be providing access to various resources that (in combination with practices of empowerment) build the basis for the creation of societal VPs comprising independence, affiliation and self-actualisation for entrepreneurs and individuals alike, which will be described in the next few sections.

Independence. FTs seem to strive for an increase in financial literacy and general awareness, providing access to information and professional advice, transparency, and an open mindset to financial issues. As new intermediaries, they offer technical and decentralised infrastructure, platforms and peer-to-peer systems through which to connect individuals and bundle the innovative force of society in order to establish a network of co-creation. As a result, individuals are less dependent on incumbent intermediaries. Using the “wisdom of the crowd” to establish recommendation algorithms and well-suited customer experiences, FTs can enhance their functional and emotional VPs and simultaneously empower society.

Affiliation. By providing open networks of co-creation, FTs can additionally deliver a feeling of affiliation of entrepreneurs with their customers. FTs create communities and foster social interaction within networks that can enhance feelings of closeness. Driven by an increase in financial literacy, general awareness and re-intermediation in co-creation and strengthened by a feeling of belonging, FTs can create independence and affiliation as societal values. In addition to the provision of access to necessary financial resources, FTs can thus also deliver motivation and a feeling of self-efficiency, enabling *self-actualisation* and *doing good* as further societal values:

Self-actualisation. Making capital, (technical) infrastructure, information, and legal requirements available, FTs can create a breeding ground for individuals to realise their ideas. They can support the seeding of entrepreneurship, from the creation of small businesses in Kenya to the establishment of new technology-driven start-ups.

Furthermore, FTs are actively using gamification elements to motivate customers. Ant Financial successfully initiated the mobile app “Ant Forest”, which should encourage customers to conform to an environmentally friendly lifestyle by reducing their carbon

footprint. The app shows customers' individualised carbon savings (performance graph) and rewards efforts by physically planting trees. By displaying a growing tree, which indicates a customer's progress in saving, Ant Financial supports goal setting as well as a feeling of self-efficacy. Another promising example is that of the insurtechs Oscar and Clover Health, which offer a discounted rate for customers who remain active and on top of their health. This leads to the fifth societal value that the authors could identify:

Doing good. FTs seem to use technological opportunities to offer chances of doing good. This includes, on the one hand, doing something good for oneself, e.g. conforming to a healthy lifestyle, as mentioned above, which can lead to a change in medical prevention. On the other hand, some FTs enable options for societal engagement and socially responsible behaviour, often supporting social entrepreneurs. Investment FTs, for example, offer impact investment. The fund of OurCrowd requires its Israeli portfolio companies to donate a portion of their equity as part of the closing of any funding round. Ant Financial is listed in Fortune's "Change the World" list for introducing the tree-planting app with which to tackle climate change.

As stated previously in Proposition 3, FTs are actively communicating societal VPs. They talk and write about their inclusive visions of "*breaking the (geographic) walls*" (doc #19178), "*unlocking the financial market to all*" (#26032) and "*bringing equality of opportunity in the world*" (#23070). OurCrowd aims at "*altering the supply and demand power dynamic of private capital markets*" (#19178), and Sofi tries to "*empower people to reach their goals*" (#16051). Ant Financial published a report about the Ant Forrest app, presenting their aim of social engagement and environmental impact. In fact, Ant Financial's mission (as published on the webpage) includes a blend of functional, emotional and societal VPs: "*With the mission of 'bring the world equal opportunities', Ant Financial is dedicated to creating an open, shared credit system and financial services platform through technology innovations, and to provide consumers and small businesses with safe and convenient inclusive financial services globally.*" (#01209)

This leads to Proposition 4:

P4: FTs can be understood as platforms and ecosystems in which functional and emotional values are cleverly combined in order to explicitly offer larger societal value by addressing the overarching themes of empowerment and inclusion in society (see P4 in Fig. 1).

How value propositions help in the formation of disruptive potential

The previously documented findings and propositions represent the basic building blocks with which to conceptualise a model explaining how VPs can lead to the formation of disruptive potential in DSIs (cf. Fig. 1).

We have shown that well-communicated functional and emotional VPs are constitutive for societal VPs. The resulting synergistic societal value propositions lift market adoption and customer satisfaction onto a mainstream level in processes that theory sees as critical towards the formation of disruptive innovations. *Thus, the authors postulate how synergistic societal VPs contribute to the formation of disruptive potential in two ways:*

1) A change in the composition of financial market participants, based on the inclusion of those large segments of society (including young ventures) suffering from the liability of newness who have been historically underprivileged and excluded by incumbents, will result in a change in the composition of mainstream customers and, thus, drive a change in mainstream customer needs. FTs, for example, not only include the disadvantaged but also try to satisfy their specific needs.

2) By matching inherent societal values, e.g. by offering self-actualisation and doing good as dominant VPs, FTs are seen to be particularly legitimate organisations in the eyes of the many people seeking change. This creates high legitimacy in the eyes of the public and results in easier and cheaper access to resources — besides finance also including even more innovative and potentially disruptive ideas, based, for example, on ideologically driven co-creation — as well as to mainstream market adoption.

Summing up 1) and 2), these arguments support the final proposition, i.e. Proposition 5: *Societal VPs of FTs and the connected discourse act as catalysts for mainstream adoption. The change in market participants and the creation of high legitimacy finally lead to the formation of disruptive potential (cf. P5 in Fig. 1).*

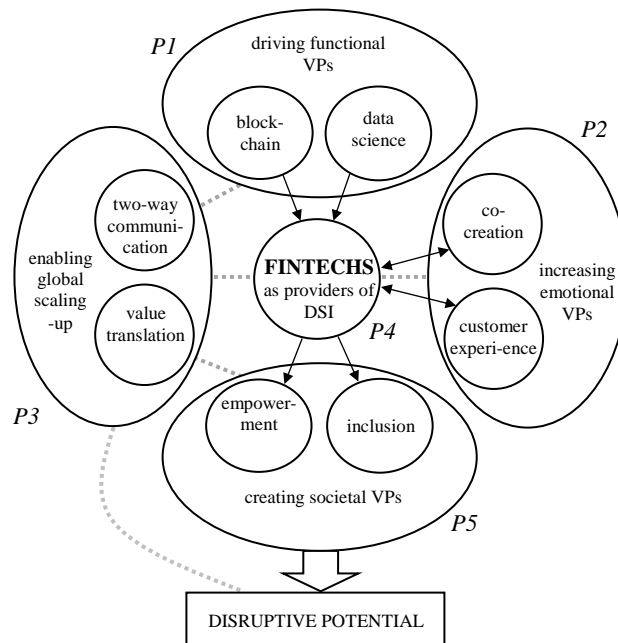


Figure 1. Conceptual model of VPs creating disruptive potential for financial markets.

Conclusion and implications

This investigation connects to research from various disciplines, amongst which are information systems, entrepreneurship, marketing, and sociology/societal change. The results are also relevant for practice, as they can provide early empirical evidence (in a qualitative, exploratory manner) supporting providers of digital service innovations (DSIs) in their competitive positioning.

The close examination of value propositions (VPs) and their interplay as drivers for the formation of disruptive potential provides insights with which to better understand and manage DSIs in the future. Furthermore, by examining fintechs (FTs) as exemplary subjects of DSIs, the authors also contribute to the literature on FTs and their potential for societal change. Taking advantage of technological progress and, at the same time, inviting the innovative dynamism of society into global, collective endeavours certainly can bring about disruptive change for ourselves and future generations, based on the values of the many. These insights are especially relevant for entrepreneurs, as their legitimacy is typically rooted in societal values and the corresponding innovation dynamics.

To sum up, fintechs allow entrepreneurs to access entrepreneurial finance via previously unknown channels based on innovative processes that ease the administrative burden and promise additional potential such as co-creation and creating shared value. Such can be well supported by insights from the “B2B elements of the value pyramid” (Almqvist et al., 2018). Building on the societal values of independence and self-actualisation, the adoption of fintechs may in the future enhance our understanding of societal values as potential drivers for economic value and economic growth.

As Owen et al. (2019) already point out, such new and evolving forms of entrepreneurial finance for innovative early-stage SMEs, which are often pre-trading or trading early and do not have a sufficient track record to attract more traditional bank debt and VC risk finance, are highly relevant. However, as they further state, “*the creation of a flourishing and sustainable early stage innovation finance market in any economy (developed or developing) requires favorable institutional and regulatory frameworks*”. This suggests the need for further research and careful monitoring of policy approaches to this relatively new phenomenon of fintechs. All too easy, over-boarding regulation based on fear or political intervention from incumbent financial players may severely harm the dynamics of this innovative market. What is more, and as Cumming et al. (2019) suggest, the relevance of FTs at different points in the entrepreneurial life cycle, including “*trade credit, debt finance, micro-cap IPOs, venture capital, and angel finance*”, needs to be researched in depth. Finally, the role of traditional finance providers such as banks or venture capital funds and their interplay with potentially disruptive fintechs will be another fruitful research avenue (Cole et al., 2019; Nicoletti, 2017). Early insights see many M&A activities being driven by incumbents, but also a few new FT unicorns such as Monzo, who are bold and even build a new bank based on the virtues of technology.

Another prominent avenue through which to move forward may be to examine how specific blends of functional, emotional and societal value propositions may be particularly effective and to what extent cultural differences have to be taken into account. In this context, the authors additionally emphasise that societal values are dynamic and highly influenced by social movements and public discourse, especially in terms of sustainability. Therefore, future research should elaborate upon how legitimacy can explain the catalytic effect of entrepreneurs, including a critical discourse analysis and the interplay of values in a social environment.

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