Middlesex University London

Ethical Business Modeling

Developing a business model for the REIT industry towards an Ethical Structure

'Alan' Lok Choon Tong, CFA, FRM, MBA

This research project is submitted in fulfillment of the requirements for the

Doctor of Professional Studies

Faculty of Business and Law

Content Page

Acknowledgements

I would like to express my deepest gratitude to Associate Professor Kate Maguire, my academic advisor for the doctorate program. She has been instrumental in providing me on-the-spot guidance on what to look out for when striking a balance between pursuing a professional career and going through a vigorous six-year doctorate program. During those moments of mental fatigue, she responded with kind words of encouragement, guided me towards alternative sources of resources as well as providing frames of reference to tackle multiple issues.

I would also like to take this opportunity to thank Professor Li Kam Cheong, my program consultant for walking alongside me through the thin and thick of my doctorate journey. He has on numerous occasions given me precise guidance on how to avoid going off track and to remain focused on my vision and aim. His insightful comments on ways to improve my writing skills will benefit me for a lifetime.

By the same token, I am also very grateful to Joshua Wu, CFA, Vice President of Maybank Kim Eng Securities for his relentless patience in helping to line up candidates for my focus group study sessions.

And not forgetting William Tan, Principal Partner of Regrowth Asset Management as well as Noel Neo, CFA, Founder and CFO of K Hotel. Both gentlemen have sacrificed much of their personal time to go through the initial manuscripts of my questioning framework as well as test applied the final version of my research on their investment mandate

I would also like to express my deepest gratitude to Chan Fook Leong, CFA, Advocacy Director of CFA Society Singapore, a veteran within the field of REIT and property investment. He has truly opened my eyes on how market sentiments work and where are the potential sources of explanatory variables for REITs' investment return.

On top of that, a sincere thank you to all the REIT managers, asset managers, research analysts, property valuators, academics and friends who have been highly supportive to my research. This work could not have been possible without your professional inputs.

Finally, I would want to take this opportunity to thank my wife who has been taking care of my diet, our household as well as caring for our two babies who came to this world in the midst of my doctorate journey. Without her patient understanding and perseverance, I would have never been able to finish this academic journey on time.

List of Acronyms

AA REIT	Aims Amp Cap Industrial Trust
ACCA	Association of Chartered Certified Accountants
AEI	Asset enhancement initiative
AFFO	Adjusted Fund Flow from Operation
AGM	Annual General Meeting
ARA	ARA Asset Management
ARX	Asia Pacific Research Exchange
AUM	Assets under management
BMC	Business Model Canvas
CBD	Central Business District
CE	Continuing Education
CITM	Cambridge Industrial Trust Management
CFA Institute	Chartered Financial Analyst Institute
CKH	Cheung Kong Holding
CIT	Cambridge Industrial Trust
CLT	Cache Logistics Trust
CREIM	Cambridge Real Estate Investment Management
CG	Corporate Governance
DPU	Distribution per unit
DProf	Doctorate in Professional Studies
EGM	Extraordinary General Meeting
EMH	Efficient Markets Hypothesis
ERM	Enterprise Risk Management
ESG	Environment, Social and Governance
FFO	Fund Flow from Operation
GFA	Gross Floor Area

GFC	Global financial crisis
HKEX	Hong Kong Exchange
IPO	Initial Public Offer
JTC	Jurong Town Corporation
MAS	Monetary Authority of Singapore
MI-REIT	MacArthur Cook Industrial REIT
NAV	Net Asset Value
NGOs	Non-Governmental Organisations
OEM	Original Equipment Manufacturer
REIT	Real Estate Investment Trust
SFC	Securities and Futures Commission
SGX	Singapore Exchange
SMEs	Small and Medium Enterprises
SPVs	Special Purpose Vehicles
SSRN	Social Science Research Network

List of figures and charts

Abstract

This research explores the development and validity of a questioning framework to better understand the Real Estate Investment Trust (REIT) business model. This framework will equip investors to navigate the rough seas of public equity investing. As an equity research analyst with two decades of experience, I aspire to enhance the level of investor education across Asia Pacific. With better investor education, the degree of information asymmetry between retail investors and financial institutions will reduce, leading to improvement in market integrity.

This research has been initiated in the context of taxpayers underwriting losses sustained by numerous too-big-to-fail companies with unsustainable business models partially due to unconstrained quantitative easing conducted by central bankers. Together with institutionally orchestrated pump-and-dump strategies, unsuspecting retail investors often find themselves at the receiving end during the eventual equity market debacles. Such unethical behaviors generate substantial societal deadweight losses.

The overall methodology chosen is unusual for the sector but proved effective and reliable. This approach will be of interest to new researchers investigating issues in complex environments in which the relationship between the practitioner, practitioner experience and knowledge and technical knowledge is an intricately connected one. The methodology belongs to the interpretivist family of academically approved approaches.

A thorough review was undertaken of the relevant literature to generate a pilot list of questions. These questions were subject to initial inspection by a group of six industry experts for ease of comprehension. Their feedback was analysed and assimilated, and a revised set of questions was produced. Using the Delphi approach, these questions were presented to 16 industry practitioners to extract their professional insights. Subsequently, two focus study sessions were conducted with six retail investors in Hong Kong and Singapore to optimise the readability of the questioning framework.

Part of the questioning framework was then mapped onto a modified version of the Business Model Canvas conceptual framework. Finally, the framework was subject to three layers of validation. Firstly, the framework was used to review four in-sample case studies to ascertain whether all red flags could indeed be uncovered. Secondly, the same processes were repeated with three out-of-sample case studies. Thirdly, three industry practitioners were invited to apply the framework during real life investment analyses to test out whether it was indeed impactful.

Validation results at all three layers were affirmative. The concise version of the framework has had a positive reception as a questioning template among retail investors. As for professional investors, the detailed version of the framework has functioned efficiently as their fundamental analysis blueprint. To date, more than 2,000 retail investors and 2,400 professional stakeholders have benefited from the series of spin-off physical and virtual CE (Continuing Education) events associated with this research. The research was informed by and confirmed the key role of corporate governance relating to the ethics of practice as well as environmental, social and governance (ESG) elements.

Keywords：Asia Pacific, business model, corporate governance, corporate social responsibility, ethics, ethical, ESG, financial regulation, industry analysis, market integrity, questioning framework, REIT, retail investor, sector analysis.

Note: Information about a number of organisations explored in this search is in the public domain. However, guided by ethics of research integrity, I have anonymised two organisations that I have subjected to examination and comment.

Chapter 1 – Introduction

1.1 Context

This chapter presents short summaries of the background, motivation, and direction of the research undertaking. It also functions as a navigational tool through the document. Subsequent chapters will go into the detail of the research activities.

1.1.1 Origination of this research – my professional experience

When I first got out of the military service at the age of 21, I was exposed to the world of public equity investment. My first "pot of gold" was made and lost in the Singapore stock market - to be more specific, during the dot com bubble in year 2000. That was my first brush with the real-life ruthlessness of the investment world – where the rich got richer while the misinformed masses got burnt.

With this personal experience of losing a significant sum of money in the stock market, I embarked on my college education with a natural curiosity to understand what had happened and the underlying logic behind it. Four years of formal education eventually resulted in me acquiring a strong theoretical foundation to understand the investment universe – or so I thought.

Armed with greater confidence, I subsequently took up an opportunity to join the investment world as a sell-side analyst. In this job, I had numerous exposures to mass media as well as public equity result briefings and overseas plant visits. It was also my first in-person exposure to the "dark side" of the finance industry. I was readily exposed to incidents of insider trading, market manipulation, vested interest influences on mass media as well as unethical collaborations among equity analysts and management of listed companies. Any one of us can read about the above unethical acts on newspaper. However, having to witness them happening in real time and to people within my social circle had been a totally different experience.

After being well "marinated" in this dark experience, I subsequently switched my job over to the other side of the analyst spectrum to become a buy-side analyst. During the five years as a buy side analyst, I was tasked with the duty of scouting for feasible investing opportunities. One of my key mandates was to avoid at all costs those listed companies that indulge in unethical behaviors. From being a bystander observer in my previous role, I had switched over to become a pro-active investigator of unethical behavior.

It proved fortunate for my fund to have me as the first line of defense against unscrupulous listed company management. But how about the retail investors? It was from this self-questioning that eventually an idea emerged which became a goal for me: there must be something I can do to make this world a more equitable and ethical place to live and work. At the bare minimum, I should at least try to make optimal use of my experience, know-how and network to make an impact.

With that in mind, I eventually took a substantial reduction in income to make a move over to the CFA Institute – a not-for-profit organisation within the finance industry.

I currently hold the position of Director, Ethics Education and Professional Standards within the CFA Institute. In my professional capacity, I advocate the vision and implementation of ethical behavior among stakeholders within the capital markets. Prior to becoming the Director of Ethics Education, I have gone through a seven-year tour-of-duty within the CFA Institute having served as the Director of Society Advocacy Engagement and Director of Capital Market Policy. The former position largely involved encouraging and facilitating our local chapters across Asia Pacific to work closely with their local financial regulators to uphold ethics and market integrity under the auspice of the CFA code of ethics. The latter position covered intensive research into the realm of investor protection and systemic risk.

To summarise, I am motivated by a value set of ethical practices, my desire for social justice and accountability and these motivations have been fueled by a deep-seated curiosity about how things work and why they work that way and how could they work fairer and still be profitable. I joined the CFA Institute to work towards achieving these goals, an aspiration on my part to play a role in shaping the world into a better place or at least for starters raters, my corner of it. To be more specific, my vision is to play a small but nonetheless enduring role in improving market integrity within the capital market.

To satisfy this drive for improvement, I sought out a gap within the capital market where I could optimise and leverage on both the resources of my company and my professional network to improve market integrity. The detailed research narrative follows. I have positioned myself as an agent of change and I hold myself accountable in my professional role and in my role as a researcher. This research narrative therefore began with the context of market integrity.

1.1.2 Current situation of market integrity

In 2001, Enron a 20,000-employee energy conglomerate collapsed after it was revealed that its financial numbers were largely fraudulent and made up through a complicated series of C-suite level institutionalised, systematic, and intelligently planned-for maneuvers. A total of USD 74 billion dollars of shareholder's money was wiped out (Ferrell 2016).

The following year in 2002, telecommunication giant WorldCom also fell prey to financial fraud by C-suite level executives. There was USD 11 billion dollars of inflated assets on their balance sheet (Ashraf 2011). When it eventually collapsed, an estimated 30,000 employees lost their jobs and with it USD 180 billion dollars of shareholder's money as well.

Fast forward 6 years to the Lehman Brothers scandal in 2008. In this saga, more than USD 50 billion dollar of toxic loans were disguised as sales. During its eventual demise, close to USD 60 billion dollars of shareholder's money was wiped out.

In hindsight, there were some commonalities among the above three financial debacles (Ashraf 2011):

1. Excessive leverage.
2. Complicated and opaque business model.
3. Disclosures not granular enough for conclusive 3rd party due diligence.

Indeed, post debacle analysis revealed tell-tale signs that things were not right from the beginning. Before the debacles, there were already voices (Fung 2014) in the market from various financial analysts pointing out numerous red flags solely based on publicly available accounting information. If this was the response to publicly available information, it can be surmised that there must have been much more happening in private.

Why did market pricing mechanisms fail so miserably and were not picked up in time by regulators? Indeed, Boudreau (2008) cited such incidents as evidence that challenged well-established economic theories such as efficient market hypothesis and capital market pricing model.

In addition, even though a handful of financial analysts did pressure the management of the three companies for more granular disclosures, such occurrences were the exception rather than the norm. So why was the capital market so oblivious to the need for more clarity when it was obvious that something was not right? Most importantly, all three companies were regarded by investors as too-big-to-fail (Ashraf 2011). This was particularly more so for Lehman Brothers which had been labelled as one of the big four investment banks on Wall Street at that time. Such too-big-to-fail mindset resulted in two negative implications for the capital market ecosystem.

First, capital market participants tended to assume that regulators will bail out these company in times of financial distress (Shipton 2014). And indeed, massive bail outs have occurred for both Citigroup and AIG when they were on the brink of bankruptcy during the peak of the 2008 global financial crisis. All these bailouts were executed with taxpayer's money. Over time, it has resulted in a moral hazard situation which, once entrenched in the mindset of investors would be very hard to eradicate. Under too-big-to-fail presumptions, investors will opt not to be too concerned with understanding the functioning logic underlying company business models. Afterall, undertaking due diligence is tedious, cumbersome, and expensive. Presuming that these companies are too-big-to-fail, investors are naturally keener (Lemus 2014) on appetising stories that could potentially result in price appreciation; regardless of whether these stories are factual or not.

Second, companies that have been perceived as too-big-to-fail usually mask themselves up with complicated corporate structures, go for extreme leverage and operate opaque business models. According to Primbs & Wang (2016), Boudreau (2008) and Johnson (2003), such occurrences have been relatively common in the capital markets, and little has changed since 2003.

The rationale for doing so is obvious: to scale up and entrench themselves deeply within the ecosystem of modern capitalism. Under such context, financial regulators and other capital market stakeholders will find it tougher to comprehend the underlying business model. Without a good understanding of the business model, it will not be possible to estimate the degree of systemic risk incurred should the corporation be allowed to fail.

These two sets of factors feed off each other leading to a vicious cycle. On one hand, investors do not demand clarity with regards to the sustainability of business model (Kuhn & Sutton 2006). On the other hand, these too-big-to-fail companies fully leverage on such mindsets to grow bigger and paying little or no attention to risk management. Very soon, these companies become completely entrenched within the capital market ecosystem.

Implicit within the mindsets of both parties (investors and the too-big-to fail companies) lies the assumption that when the tipping point is reached, government will intervene to bail out the companies with taxpayer's money. And after that, it will be business as usual.

This threat to market integrity is very real and when left unchecked, will generate significant deadweight loss for society (Australian Securities & Investments Commission, 2010). This raised the question for me and many other professionals in the world of investment of what could be done to disentangle and end this vicious cycle.

There has been no shortage of suggestions. First-in-line would be the stop-and-check measures by the financial regulators, in the form of having in place a stable legal framework, supplemented with a comprehensive supervision system, and made credible with an effective enforcement mechanism. The importance of putting in place a financial regulator has been unquestionable but that by itself is still not a complete solution (Australian Government 2009).

A legal framework regardless of how robust it was during inception will gradually get eroded by more innovative "gaming" measures. Very few market violation cases in practice have been black and white. In between the zones of legal and illegal activities lies a greyish territory with fuzzy boundaries. This is perhaps one of the main reasons why out of so many suspicious cases brought to a financial regulator, only a fraction ever got escalated to the judicial proceeding stage and even fewer got prosecuted successfully.

A supervision system can leverage modern technology to enlarge its scope of coverage but that will always be at the expense of greater monitoring costs and even then, the coverage is seldom complete.

Stiff enforcement may instill a sense of fear and prohibit misbehavior by potential culprits but once the act spans across multiple geographical boundaries and includes a complex multitude of stakeholders, effective execution remains challenging, costly, and very time consuming (Austin 2015).

Second-in-line to safeguard market integrity would be self-regulation in the form of institutional stewardship. After all, institutions are the biggest investors in most capital markets, and they are well equipped with resources (Carson 2011) to safeguard their own interests. Indeed, a handful of financial institutions group themselves together to form a unified proxy interest group to vote on their behalf during companies' board meetings.

Nevertheless, it still does not absolve the individual investor from the responsibility of Caveat Emptor, which is also known as the "Let the buyer beware" principle. This is especially so when the quality of proxy voting is dependent on the quality of the proxy representative (Canada Pension Plan Investment Board 2016).

If the proxy representative is functioning merely as a facilitator and going through the motion to earn a service fee, the stewardship value-add impact on market integrity will be diminished (Ertimur, Ferri & Oesch 2011). And then there are the potential disagreements among various institutional investors within the proxy interest group.

In all, even though financial regulation and industry stewardship are two important forces to uphold market integrity, the foundations remain shaky and subject to their own vicious cycles not least escalation. To achieve optimal stability, a third supporting pillar is required to prevent implosion or explosion – I propose this to be investor education.

1.1.3 Enhancing market integrity through investor education

In a well-functioning capital market, participants are equipped with enough knowledge to make their own investment decisions. Every decision-making act involves individual responsibility. In short, a fully buyer beware capital market (Primbs & Wang 2016).

None of the capital markets, not even the US capital market is anything close to this utopia-like state. Human civilisation may never get there, but as we aspire and move towards this utopia-like state, the associated benefits will be incremental – greater demand for timely disclosure, less information asymmetry, stronger investor confidence, more efficient resource allocation and ultimately less deadweight loss.

In practice, several generations of investor education are required before the average market participant can learn to make more rational investment decisions (Lok & Tan 2015). Building a sustainable buyer beware ecosystem through investor education is therefore the golden long-term solution (European Capital Markets Institute 2010). Once successfully implemented, it will incubate a culture where capital market participants are equipped with enough knowledge, know their rights, and **value evidenced ethical behavior as a priority**.

To be more specific, obtaining a good grasp of how corporate governance works, what constitutes good corporate governance as well as how it varies and interacts with the unique attributes of an industry business model will be a crucial aspect of effective investor education. After all, even the best business model can be ruined by a management with self-serving intentions.

Once investors are willing to pay a premium on ethical products and reward companies and financial consultants that put investors' interest first, the capital market through Adam Smith's invisible hand[1] (Evensky 1993 & Persky 1989) will rejuvenate itself through weeding out unethical behavior simply because it pays to be ethical (Ferrell 2016 & Denis 2005).

This is the backdrop against which my research is being carried out. I am motivated by wanting to make a small contribution to the never-ending movement to uphold market integrity through investor education.

1.1.4 Rationale for looking at the business model

According to Osterwalder & Yves Pigneur (2010), a business model describes the rationale of how a business creates, delivers, and captures value. Without a clear understanding of a company's business model, it would be difficult to:

- Ascertain the profit and cost drivers (Malone *et al.* 2004).
- Comprehend how environmental changes exert varying impact on different divisions of a company (Casadesus-Masanell & Ricart 2010).
- Understand how different functions, entities and systems of a company integrate with one another (Teece 2010).
- Estimate the impact of shift in megatrend (Casadesus-Masanell & Ricart 2010) on a company long term sustainability.

The importance of having a solid understanding of a company's business model is even more pertinent for the public equity investor. Before the investor can make an informed judgment call on the investment potential of a listed company, he or she needs to obtain a good grasp of its underlying business model.

1.1.5 The problem with Initial Public Offer (IPO) prospectus

IPO prospectus is one of the few opportunities (Security and Exchange Commission 2015) for investors to get an up-close view of what a company does and how its business model works. It is also one of those few moments in a public company life cycle where the financial regulator renders it compulsory to disclose highly granular information.

---

[1] *Adam Smith's **Invisible Hand** is an economic concept that was initiated by Adam Smith in his ground breaking manuscript "The Theory of Moral Sentiments", written in 1759. The **Invisible Hand** has often been used as a metaphor to describe the unexpected outcome of better social benefits brought about by individuals acting in their own self-interests in an uncoordinated manner. Adam Smith was commonly referred to as the father of modern-day economics.*

Unfortunately, potential listed companies usually do not make good use of this opportunity to properly portray a transparent and holistic picture of exactly what they do. Most companies typically pay a token consultancy fee to a third-party vendor. The vendor subsequently relies on some overused IPO business model drafting template and inserts the boilerplate content onto the business description section of their client company IPO prospectus (Bukh *et al.* 2004).

In other words, even though information disclosure through the IPO prospectus is intensive and transparent, it is also at the same time unsuitable for visual inspection and timely consumption. Together with the short lead time that investors are allocated before they decide whether to invest in the company, the practicality of the IPO prospectus becomes highly questionable.

Indeed, some practitioners have commented that the IPO prospectus is written by lawyers to be read only by lawyers. In other words, these practitioners lament that IPO prospectus exists only to ensure that listed companies have fully discharged their legal disclosure responsibility and carries few value-adds (if any) for investors to better understand how these listed companies operate.

The capital market therefore needs a business model narration format that even the common public can comprehend. This ideally should facilitate discussion among investors, investor relations, management, and regulators.

1.1.6 Current situation of business model related industry research

In the practitioner universe, business model related research is usually produced by the sell-side brokerages, consultancy firms, and not-for-profit think tank. Most of this business model literature can be divided into two major categories (Markides 2015), namely value chain[2] analysis and industry specific economics.

Value chain analysis reports are usually produced by industry associations and focus on narrating how an industry works in technical details. The main motivation lies in pooling knowledge from various stakeholders within the industry to better inform and benefit one another (Madu 2007). Such

[2] *When I am referring to Value chain analysis, the implied meaning is also applicable to supply chain analysis. Within existing literature, there are indeed subtle differences between value chain and supply chain. However, such subtle differences are non-conclusive, and they vary depending on context, author, and perspective. In the context of my research, value chain refers to the series of activities and associated key stakeholders as well as other industries that value add to the product and/or service of the target company to generate utility for end customer and in doing so gains a competitive advantage. Supply chains under most contexts tend to be narrower in scope and usually only encapsulate all the activities involved in the procurement, conversion, and logistics of a product.*

information may include regulatory policy, market research, industry specific network infrastructure, human resource management, technology renewal, contract negotiation protocol, risk management, marketing, and sales management as well as other core corporate functions (KPMG 2017).

Value chain analysis reports also examine the major firms occupying each link of the value cobweb as well as how profit margin and cost structure have migrated and evolved respectively. The analysis covers both cross-sectional and time regression reviews. During cross sectional review, the relevant attributes of the major firms are compared side by side. As for time regression review, the relevant attributes for each major firm would be analysed over a period that usually ranges from three to five years (Ensign 2001).

The key attributes for the value chain of the four subsectors will be covered in detail throughout sections 2.7.1, 2.7.2, 2.7.3 and 2.7.4. Within these sections, the scope of coverage for the value chain would be limited to those attributes that can be commonly obtained as public information. The rationale behind this is obvious: the key target audience for my research are external users such as retail and institutional investors who do not have access to material non-public corporate information to undertake their analysis. Even if individuals managed to obtain material non-public information occasionally, they are not supposed to act on it for their investment as doing so would be illegal in many jurisdictions.

Industry specific economics reports, also commonly known as sell-side sector research, on the other hand, are produced by the consultancy firms and securities brokerages. Their main motivation revolves around providing a big picture on where and how profits are being generated within the industry (Markides 2015). Their target audience are buy-side institutions and retail investors. Common content categories include macro-economics, market share and state of competition.

For an outsider to obtain a full picture of how a company's business model works, it would be more efficient if the technical logic from a value chain analysis report can be effectively consumed together with a forward-looking sell-side sector research (Peterhoff *et al.* 2014).

The challenge is that both groups write for different audiences, and they use terminology differently (Madu 2007). And that is where I aim to fill the gap. For one, I have the relevant working experience to address part of the gap. And for those areas where my professional experience cannot fulfill the requirements, I have an expert network of practitioners to support me.

1.1.7 My proposed solution

I aspire to come up with a business model questioning framework which when being utilised by potential investors will enable them to have a better understanding of the REIT business model dynamics – how different parts of the business fit together (Cognizant 2012).

The questions on my proposed framework will be predominantly asked by retail investors. It will serve three direct purposes. First, for the retail investors to query the internet search engine or specialised database when they are conducting desktop research. Second, for the retail investors to query the management of listed companies during IPO roadshows, quarterly result briefing and annual general meeting (AGM). Third, for the retail investors to question their local regulators during those rare but unfortunate incidents of regulatory lapses.

Management of listed companies who genuinely believe in and advocate shareholder activism will try their best to answer these questions. Over time, these supportive management will get to enjoy the labor of their transparency and willingness to engage the minority shareholders – in the form of lower cost of capital and a more stable equity share pricing. As for other management who display strong resistance and reluctance to answer these questions, that should raise a red flag among retail investors. In the absence of other genuine reasons, retail investors should stay away from such listed companies. If they are already invested, these retail investors should vote with their feet and walked away.

I aim to produce a robust questioning framework that end users can rely upon to make an informed judgement call on the feasibility and profitability of their investment target company's overall strategy. I have aimed for simplicity, relevance, and ease of comprehension (Osterwalder & Yves Pigneur 2010) but at the same time not over compromising on the real-life complexity of how a company operates.

My research focus has been motivated by the need to demystify the opaque layers of companies relating to their business model which makes it less transparent and more difficult for investors to feel confident and protected in their investment. Trust on the listed companies is required from the investor taking on the investment risk. Unfortunately, the investor is often being presented with only the positive aspects and public face of the company whose core intention may be to entice. A comprehensible questioning framework will enable capital market stakeholders, small and large, to start asking the right questions during business model analysis to assess trustworthiness.

I do not claim nor attempt to come up with a panacea that can create a transparent, full proof, contemporary, robust, and holistic REIT industry business model. Instead, I am striving to obtain firsthand information through interviewing professionals who ply their trades across different segments of the REIT value chain to at least make a good beginning to a model that will go some way to be more transparent than we have now.

With insights coming from a wide spectrum of interviewees, I hope to cover as much ground as possible and minimise the number of blind spots (Stamovlasis 2016). In other words, through looking at the same industry through different perspectives – a method commonly termed as Mosaic theory (Horwich 2015), I aspire to develop a toolkit that can facilitate users to better understand what is inside the wrapper of the REIT industry through investor education.

I envisage this toolkit to be a model for end users to navigate inside the complicated world of business models. In the beginning, my toolkit will play a small part towards incubating a culture within the realm of retail investing where investors gradually become able and willing to engage with complexity and interconnectedness (Koopmans 2017) during business model analysis. Such cultural shifts do not happen overnight (Goldstein 2014) and usually take a few generations of investor education effort before a sizable population of the capital market participants get convinced. I will be more than happy and privileged to be one of the pioneers advocating for this greater cause for societal good. A flow chart summarising the context of my research as follow.

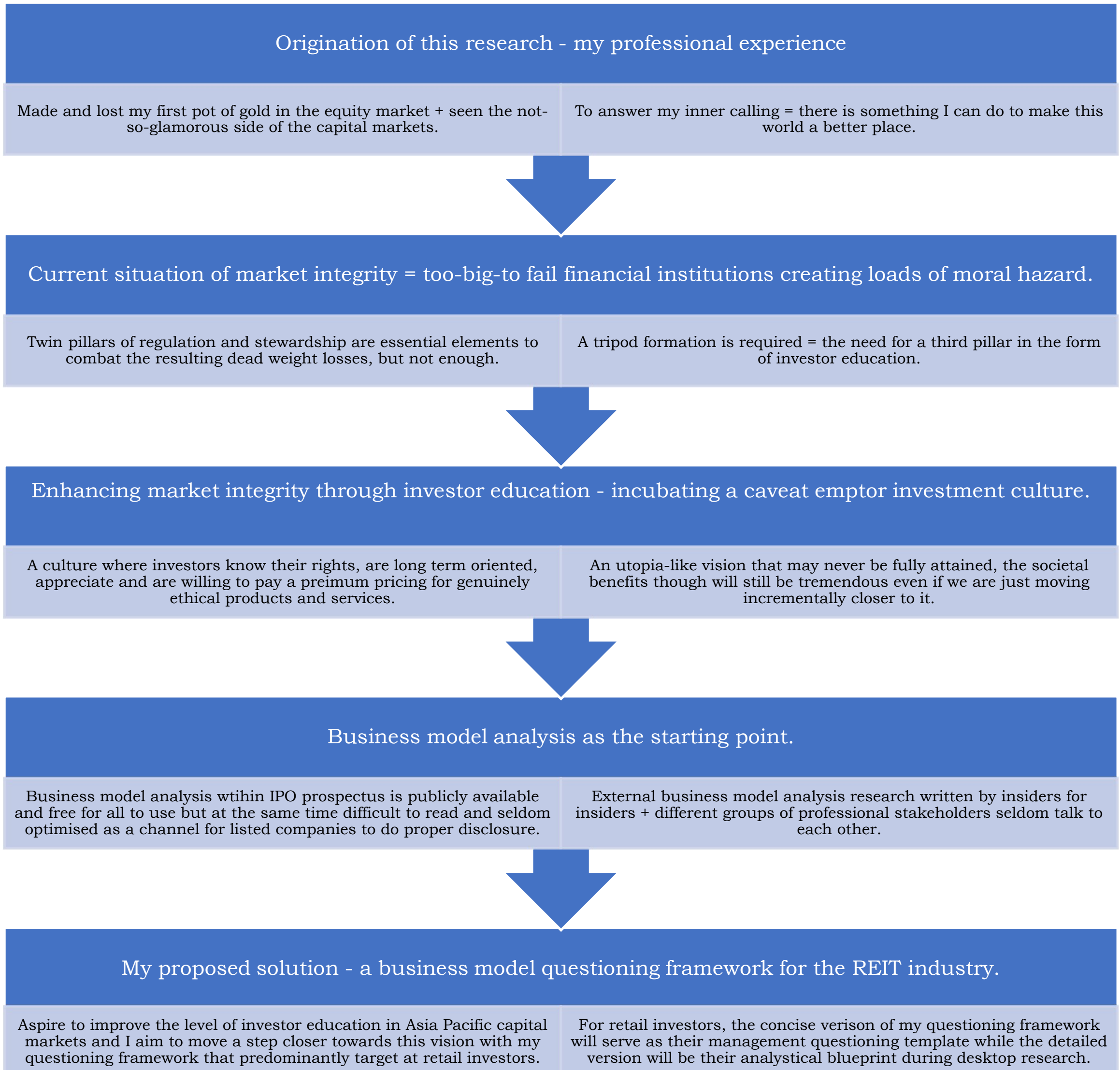

Figure 1 Flow chart summarising the context of my research.

1.2 Vision, aim, scope, objectives, and desired outcomes

1.2.1 Vision, aim and scope

Vision: investor education, together with regulatory intervention and institutional stewardship, make up the three pillars which uphold market integrity. I aspire to improve the level of investor education in Asia Pacific capital markets.

Aim: I aim to equip end users of my research with a questioning toolkit to better understand REIT business model dynamics – how different pieces of the business fit together (Cognizant 2012).

Hopefully, through this exercise, end users of my study can make an informed judgement call on the feasibility and profitability of their target company's business model and strategy (Masanell & Ricart 2009).

The scope of my research has been confined to listed REITs on Hong Kong Exchange (HKEX) and Singapore Exchange (SGX) with the following rationales. First, I have immediate access to personal and professional networks among stakeholders within the REIT industry in these two jurisdictions. Second, there are closed to 50 listed REITs in total; a population that is sufficient for in-depth research but at the same time not too overwhelming for my limited research bandwidth. Third, both Hong Kong and Singapore are developed economies with relatively matured and robust public disclosure regimes. Finally, contrary to other APAC nations like mainland China, Japan and Korea, English is the official medium language for both Hong Kong and Singapore.

1.2.2 Objectives

Several objectives must be completed before my aim can be attained.

To examine the literature within the value chain of the REIT industry, extract and filter out information relevant for investment decisions. The bulk of this content is found in Chapter 2 entitled "Review of knowledge and information".

To establish the connections between the relevant literature and the respective components of a REIT business model. How these linkages were established are narrated in Chapter 4.3 entitled "Stage 3 – Conceptual framework mapping".

To explore common ontologies adopted during business model related research as well as the blueprints and tactics utilised during business model narration to enhance the readability of my final product.

To design a research approach for collection, analysis and assimilation of data sets including interviews with corporate insiders, institutional investors, research analysts, financial regulators, and retail investors to ascertain what they think they should be looking at when attempting to understand the operational dynamics of a REIT's business model.

To establish a protocol to extract primary information from 16 practitioners through multiple rounds of email exchange and face-to-face interviews.

To optimise the readability of my questioning framework through undertaking focus group studies with retail investors. The detail of which is to be found in chapter 4.2 entitled “Stage 2 – Primary research”.

To establish the working dynamics of the REIT industry business model through comparing and amalgamating the insights obtained from literature review and primary research

To design a process to optimise the validity of the insights obtained. The detail of which is to be found in chapter 4.4 entitled “Stage 4 – Research output validation”.

The final product will be a framework of questions unique for the REIT industry that facilitate the readers to probe in the appropriate direction during his or her attempt to understand the business logic underlying the target company business model.

This research did not originate from an intent to confirm any existing suspicions, validate a specific case, or drive forward some pre-decided changes. Henceforth, there is no risk of unexpected findings, dissenting perspectives or any unforeseen directions.

I am also not concerned with issues of ultimate reality or grand theories about business modelling, but rather to focus on what works for capital market participants (Shafer, Smith & Linder 2005) and what is appropriate given the varieties of context. In other words, I seek to construct ‘maps that work’ (Masanell & Ricart 2009) rather than ideal representations.

1.2.3 Desired outcomes

This research is targeted at any individual who is keen to understand how the business model of REIT operates. The targeted spectrum of potential audience may range from someone who has an immediate need to obtain a surface understanding of the REIT business model within 30 minutes, to someone who aspires to comprehend a one glance-see-all road map of the REIT business model within two hours and finally anyone who is keen to undertake due diligence of a specific REIT.

In addition to that, this research is also relevant for comparative research between the REIT business model and other industry sectors through which they may find relevance. Aspiring researchers may find the research methodology used for this research to be appropriate/adaptable for use when analysing the business model of other industry sectors. More specific use follows.

For capital market participants: capital market participants can gain from this relatively rare open work of research. First, unlike the industry analysis carried out in silos by fund houses and consultancy firms, my study can serve as an open platform that extracts, assimilates, and shares insights among various stakeholders.

Second, being the Research Director of a non-for-profit organisation, I am in a relatively neutral position where retired fund managers, contemporary corporate insiders, aspiring retail investors and regulators are relatively open to working with me.

Third, through leveraging my established working relationship with the mass media, the insights from my research can be broadcasted across a wide spectrum of audience in the shortest time possible after publication.

For different groups of capital market participants, my business model questioning framework can serve various purposes and agendas:

- For investors and analysts, the concise version of my questioning framework can serve as the template for them to ask the appropriate questions during management result briefing. In addition, the detailed version of my questioning framework has the potential to function as a blueprint for their desktop analysis.

- For regulators and IPO prospectus preparers, my questioning framework can serve as a benchmark for them to gauge whether the IPO prospectus business model's narration style and content disclosure are appropriate and sufficient respectively.

- For listed REITs, my questioning framework can be used to enable their management to better understand the specific content as well as benefit from the narration style favored by fund managers and retail investors. With time, this can enhance communications among various stakeholders within the capital markets.

In other words, my business model questioning framework has been designed for multiple facets of application. It is not by intention to add to opaque verbiage but to provide clear communication through the art of questioning.

- For investors and analysts, it will be their handy analytical tool kit.

- For regulators and IPO prospectus preparers it serves as an objective rule of thumb.
- For listed REITs it will be a friendly communication manual.

If successfully utilised by these three groups of capital market participants, overall market information asymmetry will decline leading to a reduction in deadweight loss and eventually the enhancement of market integrity. I also hope that this will have a direct impact on my own organisation and on my own practice in the following ways.

- For my organisation: this can facilitate the CFA Institute to go one step further towards cementing our status as one of the heavyweight thought leaders within the sphere of investor education. Our members, through portraying themselves as CFA Chartered holders, will benefit directly from the spin-off brand enhancement effect.

- For the University of Middlesex and other researchers: Brand enhancement effect aside, both my faculty and fellow researchers can stand to benefit directly from having a piece of research with great practical relevance. These direct benefits can come in the form of a research perspective that can be leveraged for future work across other industries. Given the freshness of my approach, I hope this research will have a long shelf life for future researchers in related fields.

- For myself: this research undertaking represents a gigantic step in my own professional development. I profoundly believe that all professionals need to keep up to date their technical skillsets as well as challenge their own limitations to remain truly professional. From both personal and professional perspectives, I aspire to listen more and at a deeper level. This listening provides an opportunity for me to pause and reflect more, eventually leading to the emergence of empathy. In other words, listening deeply, with empathy as well as with reflection will make me became a better person. Developing this questioning framework will hopefully trigger me to question many more things and to explore the art of questioning which often exerts greater impact on my life than the associated answers.[3]

[3] *Especially during the literature review where I had been intensively exploring the art of Socratic questioning and eventually applying them during the primary research stage.*

1.3 Ethical consideration

Even though my research has focused on obtaining a comprehensive understanding of business models from an industry wide perspective, asking company specific questions as part of the interviewing process remains necessary.

This is an area where corporates might be put on the defensive or be guarded for fear of revealing too much and be accused of divulging insider information. Quoting from University of Sheffield (2013), participants have the right to:

- Consent to participate, withdraw from, or refuse to take part in research.
- Confidentiality: personal information or identifiable data should not be disclosed without participants' consent.
- Security: data and samples collected should be kept secured and anonymised where appropriate.

I will be discussing in Chapter 3 the ethical considerations in detail and how they have been a strong source of influence on my research design. I am also interested in how professional and regulatory guidelines align with or are different from research ethics.

1.4 Chapters navigation

Chapter 2 - Review of knowledge and information: this chapter presents a knowledge landscape, that is what exists in both the academic and grey literature (such as regulations and by-laws of REIT associations) as well as the professional journals and live literature in the form of conferences. I look at the literature on practice knowledge and critical reflection and explore relevant texts on methods. Such literature not only contributes to validating the work but ultimately also contributes to an interpretation of the research and positioning in the knowledge field in this sector and beyond.

Chapter 3 - Influences on my research design: this chapter presents the influences on my choice of methodology and methods and a rationale for why I chose an interpretivist position and the data sources I accessed for analysis.

Chapter 4 - Research design: this chapter narrates on the blueprint of my research. These include the steps taken to overcome the obstacles uncovered during the literature review and the protocol adopted to uphold research ethics. This chapter also talks about how various methods inform each other sequentially, when and where feedback loops occur and how the literature review continues to inform and influence the processes.

Chapter 5 - Research analysis and result: this chapter presents the result obtained from each stage of the research. It also outlines the specific analytical steps taken and the rationale for taking them.

Chapter 6 - Research findings and discussion: this chapter contextualises the finding to both the literature review and my professional understanding. It also covers discussion on significant and outlier findings. Finally, a comparison between desired and actual outcomes are made where appropriate.

Chapter 7 - Conclusion and recommendation: this chapter presents the conclusion and recommendation for a range of stakeholders as well as the rationales for making the recommendation. I also identify not least the research's impact on my own practice.

Chapter 2 - Review of knowledge and information

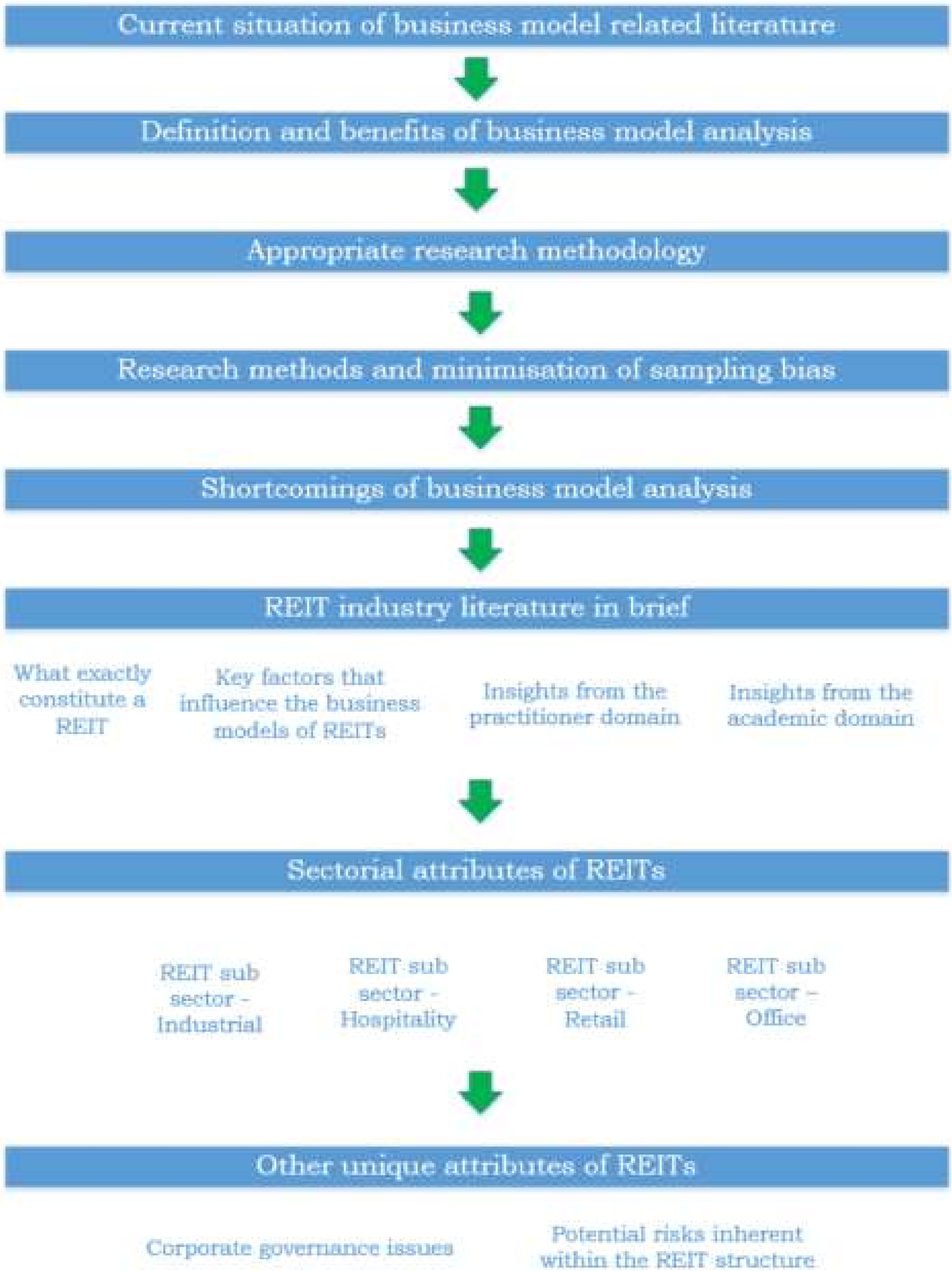

Figure 2 Flow chart of the literature review process.

2.1 Current situation of business model related literature

Any attempt to understand the real essence of a business model is at its very best a process of "blind men touching an elephant". This is particularly more so for investors who do not possess any working experience within the specific industries.

Even among corporate insiders, their familiarity will be restricted (Johnson 2010) to the usual spectrum of activities that they are dealing with daily in their professional career. For instance, a CEO may have a very clear picture of what are driving the revenue and cost of a business. But the same cannot be said of his or her familiarity with the emerging challenges in manufacturing. At the other end of the hierarchy, a production engineer may have a clear understanding of the upcoming challenges from the next generation of technology that a small competitor has recently adopted. But when it comes to the actual impact of this challenge on the company overall strategy and industry competitive landscape, his call may be as good as any man on-the-street.

The above examples are people that know their stuffs. For relatively complex industries such as banking, offshore marine and pharmaceutical, it would be next-to-impossible for any individual to fully comprehend (Stefan & Richard 2014) the entire dynamics of how each industry works and more importantly how things are going to evolve within the next six months. Even for two individuals working in the same department, they may have different interpretation (Nersessian 2008) of the company's business model imprinted onto their minds.

Due to the above constraints, the scope of focus of business model related research tends to vary a lot and can be highly dependent on the researcher's personality bias and breadth of professional experience.

One branch of business model research focuses exclusively on the key attributes (Chesbrough 2007a) that elevate or bring down a business, depending on the variation in environmental conditions. This type of research is targeted at industry practitioners (IBM 2006) and business consultants whose motivations are relatively direct, to-the-point and tangible – executable steps (Markides 2013) to improve an existing business in the shortest possible time frame. This group of readers is keen (Johnson *et al.* 2008) on understanding the embedded causality relationships and how to extrapolate them onto real-life situations.

Another branch of business model research examines business models as just another cognitive schema (Klang, *et al* 2014). This branch of research tends to target academia and organisational behavior enthusiasts who are keen to understand how to embed established theories from other disciplines (linguistics, psychology, and sociology) to explain real-life phenomenon happening in the business world (Chesbrough & Rosenbloom 2002). This group of researchers attempts to uncover a near "holy grail" version of a business model framework that can make sense (Teece 2007) of what had already happened and to a certain extent predict what will happen during most scenarios.

A third branch of business model research focuses on exploring business model as a conceptual framework to paint up a holistic picture of how a company thrives within an ecosystem (Massa & Tucci 2014). Consumers of such research includes C-suite level practitioners (Cennamo & Santalo 2013) and academia that are adept at using inductive approach. This group of readers tends to look at the bigger picture of things (Choudary 2015), focuses on mega trend and usually not particularly concerns about specific causality relationships.

Very few research papers have attempted to link up different frames of reference to project an objective view of the industry's current situation. In other words, it has been relatively common for a research paper to be skewed in one direction and with it the potentially biased conclusions (Gentzkow, Shapiro & Stone 2014). On top of that, Teece (2010) has observed that business model related research ought to be interdisciplinary, and with it the need to gather insights and knowledge across a wide spectrum of subject domains. That by itself has been an extremely tough endeavor that indirectly renders business models to be frequently mentioned during research but rarely analysed in detail.

In addition, Lambert (2015) has also uncovered that scant attention was paid to investigate the robustness of business model classification. On top of that, Olten & Bonn (2013) states that very little consideration has been made to validate the suitability of the classification framework. All these serve as big obstacles towards theorising business model related research.

Finally, Markides (2015) argues there is much overlap between the concept of business model and business strategy. Conventional business strategy researchers do not regard business model as a new field (Porter 2001) and their argument lies on the fact that both business strategy and business model have attempted to pinpoint where economic value gets created, how to create value as well as offering executable advice to achieve them. And in doing so, both schools of thought have focused on dealing with competition (Zott & Amit 2010) which again highlighted their similarity. Researchers therefore ought to accept the fact that both business model and business strategy do indeed possess significant intellectual territory overlap.

Across the other side of the fence, some researchers focus on researching the subtle differences between the two (Massa, Tucci & Afuah 2016). Business strategy focuses predominantly on the supply side of the equation (Priem, Butler & Li 2013) and looks at ways to improve the inner workings of a company to capture economic value. Business model analysis on the other hand looks at both demand and supply sides (Zott & Amit 2008) to explore ways of influencing the ecosystem in which the company thrives within also to capture economic value.

In other words, business strategy research has been more concerned on value already captured as well as how to sustain them through tweaking the variables within the company's internal sphere of control. Business model research however looks at value creation at the forefront as well as adopting a multiple stakeholder approach in addition to tweaking the variables within a company's internal sphere of control (Tantalo & Priem, 2014).

Most importantly, before commencing on any business model research, researchers must firm up a definition of what is to be included under the scope of the business model research so that the scope of research will not become unduly broad and therefore unmanageable (Massa, Tucci & Afuah 2016). I will be looking at business model definition during the next section.

2.2 Definition and benefits of business model analysis

The definition of business model comes in a wide variety of fashion (Tomkus 2014). Some papers (Osterwalder, Pigneur & Tucci 2005) adopts a functional approach and defined business model as interdependent entities consolidating to generate and deliver value to end users. Others such as (Masanell & Ricart 2009) and (Teece 2010) utilise a conceptual approach where they define business model to reflect the firm realised strategy. Keith & Brouthers (2003) defines business model as the overarching feature that commands overwhelming influence on transaction costs, risk, and trust among business stakeholders in a company.

Most inquiresadopt a monetary approach to the definition of business models. For instance, Afuah (2003) regards business model as a framework to make money for shareholders through undertaking activities that generate benefits for customers. Mullins & Komisar (2009) views business model as a series of economic activity where the movement of cash across multiple stakeholders within an ecosystem determines the profit viability of the company. Debelak (2006) defines business model as an instrument for company to generate dollars and cents.

Throughout these definitions, three attributes consistently emerge:

1. Business models thrive in an ecosystem of multiple stakeholders striving to appropriate a portion of the value-add for themselves.

2. Business model integrates various functions of a company towards a common objective: generating utility[4] for the shareholders.

3. Business model provides a big picture for decision maker and hence is closely related to strategic management.

These three common attributes make up the guiding principles of what is to be included and/or excluded within the scope of my research. Having arrived at a more concrete understanding of what truly constitutes a company's business model, I move on to explore the rationale behind studying business models. What value-add does a business model analysis provide for corporate insiders, institutional investors, retail investors and regulators?

The business model pulls together (Gould & *et al.* 2013) most of the moving parts of a business while at the same time enabling relevant stakeholders to understand the degree of entanglement among these entities. These have important implications for both insiders (C-suite level executives and other senior management) and outsiders (investors and regulators).

For insiders, they will better appreciate the ramifications and consequences of pushing certain "buttons" (Masanell & Ricart 2009) during strategy formation and tactical operations. The benefit gained at this level (Cognizant 2012) will be useful for business operators but at the same time beyond the scope of my research.

What I am more interested in are the benefits from the perspective of market resource allocation efficiency (Basceanu 2014). That is where most stakeholders stand to gain after having obtained clearer understanding of a company business model. In other words, I am looking at the merits of

[4] *Utility may not be on monetary terms in the case of non-for-profit organizations.*

business model analysis from its beneficial impact on improving capital allocation efficiency (Zott & Amit 2013) within the economy.

Ideally, any investor would have been better off after having obtained a clearer understanding (Weill & *et al.* 2005) of their target company's business model. At the minimum, the investors can at least estimate with reasonable amount of accuracy the likely impact (Chesbrough 2010) that a change in certain macro-economic variable, government policy or demographics is going to have on the future profitability of the target company.

Investors can also appreciate better the other relevant risk factors (Linder & Cantrell 2000) of the industry. From this perspective, the knowledge of business model has tangible value add (Magretta 2002) during investment decision making.

However, no one, not even insiders who have worked for decades within an industry can obtain a crystal-clear understanding of their company's business model (Osterwalder & *et al.* 2002). The remaining question is therefore, to what degree should investors as outsider undertake analysis on a company business model to enhance their reward-to-effort ratio.

Teece (2010) argues that for a business model to possess sustainable competitive advantage, it must be beyond that of having an efficient and logical way of doing business[5]. There must have been some aspects of non-replicability in the business model. Such examples may be special relationships[6] between the company and its existing customers and key partners that are highly undesirable for competitors to imitate. Another example may be on-the-ground executional experience that cannot be narrated in words and shared with non-participant.

Considering that, the product of my research should at least generate a set of toolkits that is capable of guiding users to question the core rationale (Teece 2010) of how a business model can sustain its competitive advantage. At the minimum, through adopting my framework, aspiring readers should be naturally led to more relevant questions which will enable them to navigate towards the unique characteristics of their target companies.

An important milestone for my research can therefore be a set of questions that users can rely upon to gain reasonable knowledge of how different environmental factors interact with the target company business model in a complex and interdependent manner (Burkhart *et al.* 2011).

[5] *This alone is highly replicable by industrious competitors.*
[6] *Usually, the intricacies of such relationships can be explained via game theory.*

2.3 Appropriate research methodology

Following that, my literature review moves on to methodology. To be more precise, examining the various methodologies (Greener 2008) that have been adopted in similar business model related research. Among the list of suitable methodologies at hand, I then proceed to select the most appropriate one (Kothari 2004) that suits my current context.

Research methodology encompasses a researcher's attitude (Jankowicz 2011) to and understanding of research as well as the strategy adopted to address the research. The type of research methodology adopted reflects the underlying set of belief that a researcher chooses to rely upon (Kumar 2011). This has long lasting implications on the way research will be conducted as well as the robustness of its eventual outputs (Lorenz & Loffler 2015).

Gordigin & Akkermans (2001) stresses that business model research should focus on the importance of interactions among various business stakeholders such as supplier, banker, customer as well as regulator within the value network. Once the nature of these interactions has been identified and clearly understood, end users should be able to articulate as well as evaluate whether the business logic has indeed been innovative given existing environmental constraints (CIMA, IFAC & PWC 2013). Considering that, establishing unbiased and effective ways of getting qualitative input from various business stakeholders becomes very crucial (Coes 2014).

On a separate note, other authoritative literature including Grasl (2008) and Lambert (2015) concur on the need for a conceptual framework during business model analysis. These two papers went on to emphasise that the conceptual framework should serve as the bedrock for future research. However, they also caution that the narrated business model dynamics should not be cast in stone for two reasons. First, the working of business model is dynamic and subject to changes in macro-economic environment, industry megatrend and technological innovation (Bullen & Crook 2005). What is relevant today may not be so tomorrow. Second, the qualitative information from industry insiders originates from a specific frame of reference (FASAC 2004). When new information is obtained in the future, researchers should not hesitate to revise previous versions.

In addition, given the variety of how different stakeholders construct and understand a given business model, intensive effort must be deployed during the expert interviewing stage to ensure that the different stakeholders are talking about the same thing (Bienstock, *et al.* 2002). Naturally, professionals thriving in specific locations of an industry value chain can only provide feedback that are limited by their scope of work (Feng, *et al.* 2001). As a result, they may look at the same thing differently (Linder & Cantrell 2000).

Given the complex interactive nature of modern-day value chain, most businesses nowadays are highly specialised. Because of that, to fully comprehend the business nature of a company, the scope needs to include multiple dimensions of its value web (Braccini 2008). These dimensions may extend beyond a company's industry to include the regulator, downstream industries, upstream industries as well as global think tanks. Business model related research therefore ought to be multidisciplinary (Webster & Watson 2002).

Two ontologies pertaining to business model analysis kept surfacing up during the literature review. They were respectively business model ontology and e3-Value ontology.

According to (Osterwalder, *et al.* 2005), the business model ontology is defined as a "*conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams*".

The business model ontology divides a business model into four building blocks (Key entities, customer related entities, cost structure and revenue streams) where each block in turn is composed of a set of unique elements[7]. This ontology allows for user discretion at various levels of abstraction. Each of the unique elements is related to one another through logical linkages, customisable depending on the nature of the business model being analysed (Braccini & Spagnoletti 2008).

A unique aspect of the business model ontology lies with its core initiation theme – the value proposition. All four building blocks revolve around value proposition and rely on contemporary information obtained from corporate insiders and related stakeholders to fill up the "meat" of the business model (Gordijn*, et al* 2005). Alternatively, relying on firm information available from public domains may be sufficient as well, depending on the degree of due diligence required.

---

[7] The key entities building block is made up of key partners, key activities, and key resources. The customer related entities are made up of customer relationships, customer segments and channels. Both the cost structure and revenue streams are stand-alone building blocks.

Through dividing a business model into four building blocks and subsequently linking them up with the flow of product, resource and cash, the business model ontology can generate a quick graphical description of a firm business model. This greatly eases the readability of an otherwise highly complicated business model. This attribute alone has rendered its usage very popular (Osterwalder 2004) among business consultant, product manager and the academia.

The e3-Value ontology on the other hand focuses on the exchange of value objects among actors within a business web (Hans 2016). It uses the unified modeling language (UML) that has been prevalent in the field of software development methodology. In a nutshell, it is an explicit ontology that is supported by graphical tool.

According to Jaap (2004), e3-Value provides a better shared understanding of the business model among various stakeholders, particularly pertaining to where its profit drivers reside. However, a model is only as accurate as the quality of its assumptions. For e3-Value to work[8], various assumptions such as the identity of objects, their associated value estimation and distribution must be correct. Relative to the business model ontology, the potential elasticity of error through using the e3-Value ontology is higher (Gordijn, *et al* 2005).

Most practitioner research papers adopt the business model ontology (Coes 2014) even though most of them did not explicitly state so (Casadesus-Masanell & Heibron 2015). Among the academic research papers, the split has been relatively even between business model ontology and e3-Value ontology. Up till this point, I come to observe some common characteristics in the way business model related research has been conducted.

To begin with, most business model related research have relied on data obtained from interviewing practitioners working in different parts of the industry value chain as well as across different management levels within the target company (Greener 2008). Beginning with an initial set of questions derived from desktop-based value chain analysis[9] (Ensign 2001), the

---

[8] To utilise the e3-Value ontology for business model analysis, private information such as segregated cash flow, projected streams of divisional revenue under different scenarios and their associated probabilities are required which is beyond the scope of this research. Within the literature universe, the e3-Value ontology is particularly suitable for analysing the business model feasibility of start-up (instead of matured and listed company) where the flow of discrete information is relatively simple.

[9] Value chain analysis refers to the systematic way a firm cost and profit drivers, key risks and competitive advantage are being dissected and analyzed in a sequential and technical format.

researchers carry out first round of interview with these practitioners[10]. The product from this stage is a truncated but more relevant set of questions.

Following that, the research proceeds to a second round of interview and eventually with an expanded circle of practitioners using the truncated set of questions. After this stage, the researcher moves on to compare feedback on the same set of questions provided by different practitioners working in the same job function (Christensen and Johnson 2008).

Whenever the researcher came across pieces of information with inherent logical conflict, the feedback will be congregated and be subject to more value chain analysis or further consultation with other corporate insiders. And depending on how contentious the feedback has been, more iterative rounds of interview with different individuals may be required (Grasl 2008).

In all, these research papers (Woratschek & Schafmeister 2005), (KPMG 2017) and (Zhang 2009) have a common goal - attempting to generate a sense of pattern or structure which can provide some explanatory logic for why certain modes of business model within an industry are more sustainable than the rest.

Another common characteristic is that even though most business model related research attempt to generalise out a set of knowledge that have practical values[11], they seldom attempt to provide a deductive conclusion through the usual hypotheses testing approach (Markides 2015). In other words, the deductive pathway of commencing with an established theory, followed by hypothesis, observation and confirmation is seldom adopted in business model related research.

As can be inferred, opinions from industry practitioners hold relatively heavy weightage during business model research. Because of that, regardless of how intensive a researcher undertakes verification with different sources, the opinion and observation from practitioners will always be expressed through a layer of individualised frame of reference (Zhang 2009). Unless the researcher is comfortable with seeing and examining the world through the eyes of the people being studied (Jankowicz 2011) and at the same time allowing the co-existence of multiple perspectives (Soiferman 2010) of cause-and-effect being researched upon, it will not be possible to interpret such study.

[10] *These practitioners include investment analysts, fund managers, retail investors and C-suite level executives.*
[11] *Suitable to be used during company valuation as well as for making investment decision.*

Thus far, the literature review has indicated that the interpretivist philosophy appears to be the more widely adopted methodology during business model related research. For the rest of this section, I will undertake an exploration of the interpretivist methodology.

According to Willis (2013), interpretivism as a modern research methodology began with the sentinel work of Max Webber and Alfred Schutz where both attempted to fortify a systemic way to research subjective phenomenon in the realm of social sciences. The core objective is to generate a format of reliable knowledge that can explain and give meanings to the social world. A lot of attention is paid to the character and attributes of social action as well as how a particular meaning can be attributed (Venkat & Carter 2018).

Both Webber and Schutz however differ in their point of focus. For Webber, he concentrates on finding out ways to abstract out social actions instead of searching for the meaning behind an individual's social action. In other words, social action on a higher level can be explained and understood through contextual modeling where big data displaying statistical coherence can eventually lead to interpretive understanding (Harrison 2014). For Schultz, his focus is on the role that individuals had in determining social actions and goes on to conclude that this ought to be considered during theory formation.

Throughout the 20th century, 'interpretivist' knowledge was passed down through generations who focused on learning by doing (Madison 2015). With time, this has resulted in a rich and diverse pool of robust research methods in the realm of qualitative research. One very good example is the grounded theory which was the pioneer efforts of Glaser and Strauss during their attempt to enhance the systemic approach to undertake ethnography research.

A common debate in the domain of practitioner research revolves around whether qualitative research equates to interpretivist. Afterall, interpretivist as a methodology has been the most frequently cited option during qualitative research (Dean 2018). According to Harrison (2014), there are three broad epistemologies for qualitative research – namely interpretivist, positivist and critical.

Positivist subscribes to the notion that all genuine knowledge originated exclusively (Carey 2012) from the experience of natural phenomena and their associated properties. As such, information derived from sensory experience when interpreted with logic and reasoning would have been sufficient as the exclusive knowledge source. Just like natural sciences, positivist views the social world as being made up of verifiable causality as well as operating within certain law and order.

Critical methodology on the other hand thrives on de-emphasising the associated methods (Booth *et al.* 2016). Under this methodology, both theory and research make up the argument construction where the arguments in turn need to be backed up with concrete evidence. The critical methodology leverages on continuous challenges to established assumptions to optimise the "truth" out from varying contexts.

Interpretivist, unlike the other two methodologies, acknowledges the practical limitations of the social world and recognises the importance of viewing social actors through the tainted lens of individuals (Dean 2018). As a commonly used methodology in the universe of qualitative research, interpretivist allows for different results under varying contexts. A mild variation of interpretivist is pragmatism. Both interpretivist and pragmatism observe actions and attempt to interpret them. Pragmatism goes one step further; it intervenes the process and subsequently constructs the conclusion (Goldkuhl 2012). Because of that, pragmatism as a methodology have been particularly suitable during instances where intervention is desirable, such as during an organisational change management.

In summary, for research that looks for explanation and prediction, the positivist methodology is preferred. For the same purpose, the interpretivist methodology, under certain settings will also be appropriate. For research that aims at intervention and change, the pragmatism methodology should be considered (Lawrence 2015). Finally, for research that focuses on interpretation and understanding, the interpretivist methodology is more suitable (Harrison 2014).

The interpretivist researcher usually makes up the epicenter of the research where his or her professional encounter, interpretation of human behavior and opinion on social phenomenon make up the relevant data set. The final objective of most interpretivist research center upon obtaining an intensive but subjective understanding of human entities, often through the tainted lenses of expert practitioners.

For many researchers, it is usually easier to adopt the positivist methodology where quantitative data are subject to vigorous statistical processes to generate verifiable outputs. This is a more common research route used in the natural sciences. In practice however, both human behavior and their associated social phenomenon need to be empirically measured before they can be fitted into the positivist analytical paradigm (Madison 2015). The fitting process disregards all subjective information and data sets that cannot be robustly verified.

In a nutshell, positivist unplugs the researcher out of the research (Prasad 2017) and dictates the researcher to focus on observations and interpret them within established analytical frameworks to ascertain how these observations come about. Interpretivist on the other hand implants the researcher deep into the research to observe and sometimes directly intervenes a social phenomenon to comprehend the interpretations that individuals (both the researcher and the expert community) had already made. Both sets of methodologies are not wrong per se. They just adopt different angles of looking at the real world (Maurino 2016).

Research adopting the interpretivist methodology therefore cannot isolate observations, quantitatively measure them, or distill out generalised principles that can be extrapolated efficiently to out-of-sample instances. Therefore, studies that focus on obtaining a holistic understanding of individuals' feelings and their subjective interpretations is more suited under the interpretivist paradigm (Yanow & Schwartz-Shea 2014). For this reason, qualitative methods such as grounded theory (Pulla 2016), narrative analysis and constructivism have been more commonly associated with the interpretivist methodology.

Finally, the interpretivist researcher ought to possess exceptional sensitivity and flexibility (Willis 2013) to openly receive the flow of thoughts from the expert practitioners as well as appropriately react to them in real time in order to obtain a holistic comprehension of these practitioners' experiences. The outputs from such research can seldom be structured, pre-determined or ascribed to any pre-conceived notions. Instead, the end results tend to be a convoluted and reflective interpretation of multiple facets of a social phenomenon (Lawrence 2015). And this is where the beauty lies, as a methodology, interpretivism allows for the use of a wide scope of methods, only to be constrained by the researcher's creativity. Below is a flow chart that walks through my literature review for the suitable methodology.

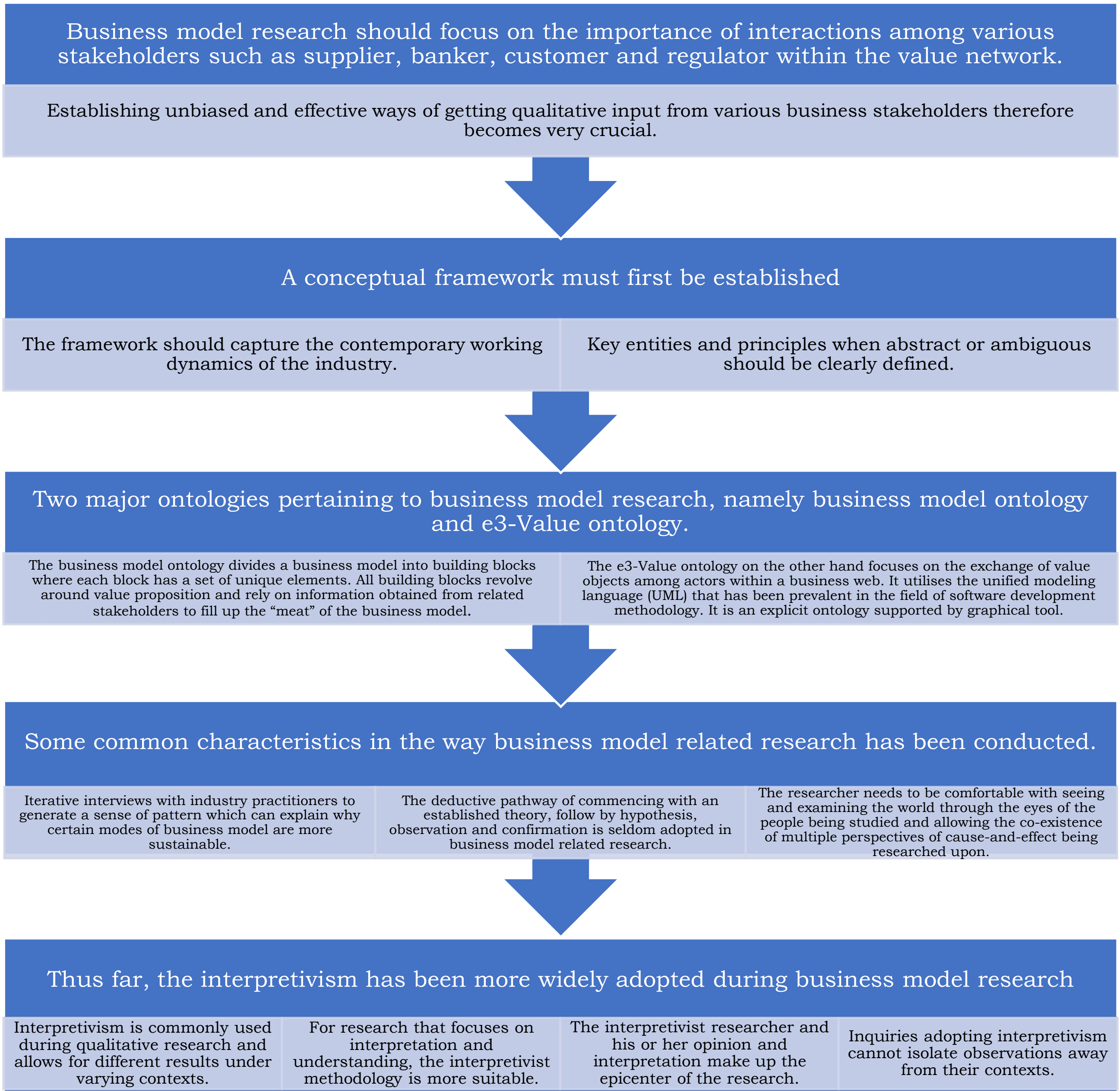

Figure 3 Flow chart of my literature review for the suitable methodology

2.4 Research methods and minimisation of sampling biases

2.4.1 Research methods

Unlike methodology, research methods refer to the range of specific activities (Williams 2007) undertaken to obtain, generate or extract data for analysis. Examples include observation, one-on-one interview, focus group discussion and questionnaire.

My literature review of research methods develops in two directions. The first direction examines appropriate research methods used during similar research endeavors. The second direction examines the various ways to minimise sampling biases and the associated human error of each research method.

Among the variety of research methods, case study appears to be one of the more commonly used approaches (Stevenson 2005). Even for quantitatively driven research, case studies together with surveys (Osmadi 2010) have been frequently adopted to complement the numerical evidence. The use of case study (Virani & Kaur 2015) for enhancing the comprehensibility of a REIT business model has also been relatively common in the practitioner domain.

Given the large population of REIT case studies in the literature universe, a filter needs to be put in place to ensure the number of cases to be analysed remains manageable (Hektar 2008). One of the most widely used filtering criterion is to concentrate on analysing the best and worst performing listed REIT business models in recent history (EY 2016).

An objective way to categorise listed REITs into these two compartments is through their stock market returns (Gordon, *et al.* 2014). Other feasible alternatives would be attributes involving accounting figures such as funds-from-operations, earnings, price-earnings ratio, and price-to-book ratio. These attributes have been commonly used to rank the performance of REITs in many practitioner reports.

There are however two main flaws that come with these alternatives. Firstly, accounting figures are calculated differently in varying regulatory regimes. This may render the same set of figures to be incomparable for two firms within the same industry. Secondly, accounting figures might be susceptible to creative manipulation even in the long run – both the Enron and WorldCom debacles being the prime examples of such.

After categorising the listed entities within an industry into the two compartments, distillation of key success and failure factors usually follow suits (Gordon, *et al.* 2014). The general steps of doing so have been quite similar (Mohamad & Zolkifli 2012) across most industries. First, the common attributes of the entities in each compartment is filtered out (Olanrele 2014). Following that, these attributes are matched (Said, Daud & Olanrele, 2015) against key success and failure factors as extracted from authoritative research papers.

For my research, I am only interested in the REIT industry. The commonly analysed key success and failure factors are publicly available across a wide spectrum of sources (Meng, Shen & An 2015) which span across the academia (Hardin *et al.* 2009), accounting, asset management and credit rating (China Chengxin 2016) universes. The authoritative literature and their key success and failure factors are covered in detail during the last few sections of this literature review.

Besides the above track of research methods that commences with case study and stock market data, another common track of research method involves the direct seeking of practitioners' opinion. Specific methods relevant under this track include the following (Harrell & Bradley 2009).

- Questionnaire (survey): a fixed set of questions that can be executed both online and in physical form. This style of interaction tends to be one-directional which closes out any opportunity for interviewee to clarify their doubts. Because of that, tremendous amount of effort needs to be spent on ensuring the suitability of the questions being asked. And depending on the audience's intensity of anticipation, response rate can fluctuate widely. Also, to minimise self-selection bias, the sampling population must be selected with great care[12] (Trochim 2002). Relatively cost effective and less time consuming to execute.

- In person interview: a one-on-one discussion between the researcher and the interviewee. Relative to survey, interaction during an interview is bi-directional. Interview can take place with a fixed set of pre-defined questions (structured interview) or in an open question and dialogue style. Most interviews fell somewhere in between (Edwards & Holland 2013), starting with a fixed set of questions and ending with an open-style dialogue (semi-structured interview). Relatively time consuming to execute.

- Focus group study: a dynamic group discussion where the degree of structure can range (Edwards & Holland 2013) from a relatively loosely managed to a highly organised style. This method can be used in silo or in combination with other methods. Effort must be deployed to detect and minimise group think[13] which can be detrimental for the outcome's objectivity. Relative to survey, there is two-way interaction, and relative to interview, focus group study tends to be less time consuming. Given

[12] *If a survey is being sent out to a huge population on a random basis, there is a strong bias for "extremists" to response; which would overshadow the view of the majority population.*
[13] *Especially prevalent when one or more interviewees have overwhelmingly dominating character.*

its open nature[14], this mode of research method is more suitable for non-sensitive and less personal topics.

- Nominal group technique: a variation of focus group study where information gathering goes through a complete round for each topic and/or question so that every interviewee has an opportunity to speak up. The interviewees are then asked to prioritise the suggestions of all members. The role of the moderator is highly pertinent (Jones 2004) given that the mechanical nature of this method needs to be smoothed out by the flexibility of the moderator to ensure that discussion remains relevant and fluid instead of being static and monotonous.

Information collected through the above extraction methods tends to be relatively diverged (Dalkey & Helmer 2002). To optimise the relevance of these opinions, additional process is required. For this, the Delphi method is commonly adopted (Driscoll 2011). Delphi method is a highly structured interaction system which relies on the heavy use of a group of expert interviewees. The system commences with the usual seeking of opinions from a group of expert interviewees[15].

Subsequently, the researcher anonymises, randomises and/or summarises the results from first round and share it among the same group of expert interviewees. These expert interviewees are then given a short window-of-opportunity to modify their answers after having a glimpse of what the other experts have written. The purpose of doing so is to narrow down the diversity of feedback so that the conclusion eventually converges. And depending on the degree of diversity of the initial answers, this process can go through a second, third or even fourth round.

Given the anonymity requirement commonly required during in-person interview, the Delphi method possesses several advantages:

- First, it is sensitive and responsive in identifying turning points in mega trends (Gordon 2009).
- Second, the Delphi method avoids unduly influence (Yousuf 2007) from respondents with strong personality or vested interest.
- Third, the method allows for extreme opinions (Gordon 2009) to be brought up for discussion.
- Finally, the Delphi method is adept (Kosow & Gabner 2008) at combining both qualitative and quantitative methods.

[14] *The one-to-many nature of this research method destined it to be unsuitable for sensitive topics.*
[15] *This can be in the form of survey or one-on-one interview.*

The Delphi method however also has disadvantages:

- First, the process is highly repetitive and therefore very time-consuming (Skulmoski & Krahn 2007) during implementation.
- Second, while consensus is normally achieved most of the time (Hsu & Sandford 2007), it does not come with absolute certainty (Yousuf 2007).

For qualitative research, asking question is an inevitable activity. According to Brooks & John (2018), apart from certain professionals such as lawyer (Schauer 2009), journalist and medical doctor (Kessler *et al.* 2015) who are formally trained to ask question, very few industry practitioners think of questioning as a skillset that can be honed or needed to be improved upon. After all, most of us were taught at childhood to directly ask questions to clarify our doubts. It is part of human nature and often taken for granted. The fact can never be further away from reality.

First, appropriate questioning enhances targeted learning. It makes up the bedrock (Rabie 2013) supporting all human intellectual activities. Second, appropriate questioning speeds up innovation (Vogt 2013). Very often, good questions open new frontiers, new ways of thinking and completely new perspectives of looking at the same thing or issue. Third, appropriate questioning clarifies blind spots and with it the associated benefit of risk minimisation.

Fourth, genes and upbringing exert profound impact on the way we ask questions (Bueno 2019) – some people are born or trained at very young age to be better than others. These individuals usually display (Ronfard *et al.* 2018) the natural inquisitiveness and have relatively higher emotional quotient (EQ) and hence better able to decipher body language. For the rest of us, we usually do not ask enough question or even when we have asked enough questions, we often fail to do it optimally.

Fifth, the good news is that asking optimal question is a skill set that can be learnt (Ronfard *et al.* 2018). On top of that, once an individual starts asking better questions, EQ improves, and with enough practice will lead to better questions being asked and so on continuing within a virtuous cycle. This is good news for me, as one of the objectives for undertaking this research is for me to become a better listener, researcher as well as an individual who can listen with more empathy. To achieve all these, I will need to learn how to start asking questions optimally (Brooks & John 2018).

The art of asking good questions can be traced to Greek philosopher Socrates (Paul & Elder 2006). Socrates is the teacher of Plato. According to Plato in

(Ross 1993), Socrates believes that disciplined questioning needs to first assume an ignorant mindset, commonly known as the humble mindset to thoroughly force the questioner to break free from all pre-conceptions so as to assume the highest level of knowledge. When the questioner can attain this stage, he or she will display the following behavior:

- Able to acknowledge contradictions/differences.
- Able to refine previously inaccurate ideas.
- Able to pursue thought in many directions and for multiple purposes.
- Able to uncover assumptions.
- Able to analyse relevant concepts.
- Able to validate new ideas.
- Able to distinguish what one knows from what one does not know.
- Able to deploy logical flow to control discussions.

This form of questioning is known as Socratic questioning. Its core foundation is pinned upon structured logic while at the same time allows room for underlying thoughts to be challenged. Relative to questioning per se, Socratic questioning is more structural, disciplined, and in-depth (Carey & Mullan 2004). An appropriate analogy to contrast questioning per se with Socratic questioning is systematic thinking versus fragmented thinking (Saleky 2018). Most qualitative research adopted the essence of Socratic questioning during primary data collection (Peterson 2009), whether or not they explicitly mention it in their published papers. For my research, being able to ask the right question during primary research and presenting the associated results in the most optimal questioning format is crucial. Because of that, the structural robustness of Socratic questioning is relevant.

Next, I turn to examine the third common approach of business model analysis, adopting analytical framework from the business strategy domain.

- Ansoff's matrix – a matrix that provides transparency (FME 2013) for a business to understand where its various business units currently stand in terms of product[16] and market nature[17]. Through these two-dimensional classification, Ansoff's matrix classifies business model strategy into four categories:

    - Market penetration – a business model that attempts to further broaden the reach of an old product in an existing market.

[16] *New product versus existing product.*
[17] *New market versus existing market.*

    - Market development – a business model that attempts to sell an existing product in unexplored market.
    - Product development – a business model that attempts to sell a new product in an existing market.
    - Diversification – a business model that is venturing a new domain through a new product.

  In short, it specifically looks at the business model's big picture from the perspective of product and market nature with the intention of directing it onto an optimal growth path (Haq, Wong & Jackson 2008).

- Balanced Scorecard - a relatively detailed and structured reporting framework that allows management to decipher the various aspects of a company's business model quickly (Kaplan 2010). The Balanced Scorecard framework requires tremendous amount of recording at all levels across a company, focuses on the strategic intent of the underlying business model, able to customise dashboard for end users quickly and looks at both financial and non-financial data sets. This framework has strong empirical foundations but is often criticised for its lack of reference (Hanne 2000) and adherence to other business model frameworks.

- Boston Consulting matrix – a matrix that categorises business unit into one of the four categories: cash cow, dog, question mark and star. Boston Consulting matrix analyses a business unit in two dimensions, namely its market growth potential and relative market share.

    - Cash cow refers to business model with huge market penetration rate but in a slow growth or stagnant industry.
    - Dog refers to business model with low market penetration rate and in a slow growth or stagnant industry.
    - Question mark refers to business model with the potential to become tomorrow cash cow as it has barely penetrated a fast-growing industry.
    - Star refers to business model thriving in a fast-growing industry and already possessed a high market penetration rate.

  This model has been criticised for being too narrowly focused (Slater & Zwirlein 1992) on just market share penetration and industry growth potential while failing to look at other critical factors behind the mega trends.

- Business model canvas (BMC) – an all-rounded template originated for the startup entrepreneur and strategic manager to pen out their initial business model conception. The BMC is well-known for its visual appeal where it elegantly breaks up a business into nine entities. Intrinsic within the canvas are the literature, concept, and ideology from various conventional business analytical frameworks (Osterwalder 2004) such as the Ansoff's matrix, Boston Consulting matrix, Mckinsey 7-S model and SWOT analysis.

- McKinsey 7-S model – a model that provides the strategic vision of a business model to top management. The 7-Ss are structure, strategy, system, skill, style, staff, and shared value. The key hypothesis behind this model is that all the 7-Ss need to be fully aligned and mutually reinforcing for the business model to optimise its true potential (Ravanfar 2015). This model serves more as an inside-out toolkit for corporate insiders to gain clarity and becomes more aligned on their collective strategic intent. In addition, it triggers corporate insiders to ask questions on existing corporate weakness, competitive strength, mega-trend and where changes are imminent, how to press the correct "buttons". It offers a systematic approach in dealing with organisational complexities.

- Porter's five forces – a framework that specialises in deciphering the state of competition as well as relative bargaining power distribution among various stakeholders within an industry. The five forces are:

    - Bargaining power of suppliers.
    - Bargaining power of customers.
    - Threat of new entrants.
    - Threat of substitutes.
    - Degree of competition within the industry.

  This framework is rudimentary (Önören, Arar & Yurdakul 2017) and should be used in conjunction with other frameworks in practice. Even the creator Michael Porter also confesses that the five forces framework is not designed to be used at sector or industry group level. Michael

Porter goes on to highlight that for conglomerates, corporate strategy should hold more weight during strategy formation.

Common critics against Porter's five forces framework lies with its simplicities. First, it fails to account (Fung 2014) for the possibility of collusion among customer, competitor, and supplier. Second, it over emphasises the value of entry barrier erection which underplays the potential value of cartel in real life.

Nevertheless, Porter's five forces framework continues to play an important role (Mwangi & Wekesa 2017) for decision maker to gain a quick and rudimentary understanding of the current state of an industry.

- SWOT analysis – one of the most widely used (Harrison 2010) strategic analytical model of all times. SWOT stands for strengths, weaknesses, opportunities, and threats. Its application spans across (Ommani, 2011) personal assessment, project feasibility study, startup business model and industry analysis.

  Like the Porter's five forces framework, critics attack its simplicities. First, SWOT analysis can be misused through misrepresentation of a business model's strengths, weaknesses, opportunities, and threats since there is a clear absence of a systematic and robust way to generate these attributes (Hovardas 2015).

  Second, there is a tendency for SWOT analysis to be exploited as a framework (Hovardas 2015) to defend pre-agreed decisions during board room political tussle and during corporate consultancy project. This tendency however is not unique for SWOT analysis but has been relatively common among most analytical models in the realm of management science.

  Despite all these short comings, SWOT analysis still performs relatively well as a brainstorming mental flip chart for researchers who need to visualise a superficial big picture at quick glance. As a complementary tool kit to cast some lights on the current state of competition within an industry, the benefits still outweigh the costs (Harrison 2010), especially after the inputs have been carefully calibrated.

Below is a list of all the relevant research methods uncovered during the literature review.

Using publicly available data & data extraction techniques

- Using established case studies.
- Using public equity pricing as filter.
- Matching results from publicly available data with conclusions from authoritative papers.
- Socratic Questioning.
- Triangulation, also known as cross validation.

Direct seeking of practitioners' opinion

- Questionnaire (survey).
- In-person interview:
  - Pre-interview email exchange.
  - Delphi approach.
- Focus group study.
- Nominal group technique.

Relevant methods from the business strategy domain

- Ansoff's Matrix
- Balanced Scorecard.
- Boston Consulting Matrix.
- Business Model Canvas (BMC).
- McKinsey 7-S Model.
- Porter's Five Forces Model.
- SWOT Analysis.

Figure 4: List of appropriate research methods uncovered during lit review.

2.4.2. Minimisation of sampling bias

Regardless of the research methods adopted, if the input parameters are not well calibrated and/or biased, the conclusion will be skewed. Examples of such subjective biases include using leading questions, questions that are not intersubjective, questions that are too person-dependent and purely explorative in nature (Rajendran 2001).

On top of that, other good practices that can be adopted to optimise the validity and reliability of my research include:

- Spending quality time with the interviewees in non-interview settings[18] to bridge the inter-personal gap with them (Krishna, Maithreyi & Surapanei 2010). Once the bonding strengthens, getting objective views becomes easier.

- Ensuring that data collection commences as early as possible (Brink, 1993), being spread over a relatively long period and undergoes repetitive cycles. In this way, subtle shifts in opinion due to changes in environmental factors can be observed.

[18] *Normal social interactions.*

- Unplugging away from the research at regular interval (Brink 1993) to prevent oneself from becoming overly enmeshed with the interviewees and subject matter. In this way, the researcher will not be offset and lost in the seas of third-party opinion.

- Making sure that interviewee bias is minimised through ensuring the interviewing process is not unduly long such that fatigue, anxiety and lack of motivation starts to set in (Loureiro & Lotade 2005). Reconfirmation of extracted information with the same interviewee under different environmental setting and time also works. This is where the Delphi method plays a crucial role.

- Avoiding elite bias[19] (Berry, 2002) through triangulation with multiple sources of data and purposefully looking for sources with contrasting cases.

Beside working on the input during sampling bias minimisation, I can also work on the output (Burkhart *et al.* 2011). This logic from the literature review is simple and self-explanatory – attempting to generate the same output through different observers, research methods and empirical material. Once the outputs are extracted, cross checked among themselves (Brink 1993). This process is known as triangulation or cross-validation.

Triangulation or cross-validation could occur at both the strategic and tactical perspectives[20] (Saisana & Hombres 2008). The specific ways to do so are near limitless and vary with the research topic, only to be constrained by the imagination & creativity of the researcher (Yeasmin & Rahman 2012). The objective behind triangulation is to obtain confirmation of findings through the convergence of different perspectives (Alexander 2001).

Eventually, the selection of research methods for this research will depend upon the trade-offs among the following factors:

- My resource network,
- CFA Institute resource network,
- My experience in using the method(s), and
- Consensus within the literature universe.

The detailed narration of which is found on Chapter 4 -Project design.

---

[19] *Elite bias occurs in data extracted from well-articulated, well-informed and usually high-status interviewees. They might not provide the full picture of the general population consensus.*
[20] *I will demonstrate how to execute this in this enquire during the section on "Project design: Research Methodology & Research Methods"*

2.5 Shortcomings of business model analysis

After looking at research methodology and method specific literature, I proceed to explore papers that examine inherent problems within business models. The common limitations of relying on business model analysis for investment decision include but are not limited to the following:

1. Figures generated by accounting framework might not be forthcoming.
2. The most intelligent business model can be ruined by inferior implementation (Osterwalder 2004).
3. Management is dynamic and will always be a wild card (Olten & Bonn 2013) going forward.
4. Business model analysis cannot be applied in silo. To maximise their impact, it must be used in tandem (Stefan & Richard 2014) with other asset valuation and investment analysis tools.

The objectivity of accounting numbers has been an issue that is inherent within global capital market (McKernan 2001). Any analysis that relies on publicly disclosed numbers from listed companies are subject to similar constraints. Ascertaining the factuality of accounting numbers is beyond the scope of this research. Similarly, inferior business implementation and subtle changes in management's personality are also common issues faced by all industries and at the same time beyond the scope of this research.

However, given that users of my questioning framework will most probably rely heavily on the accounting numbers and the perceived confidence on management to make their judgment call, it will be value-adding if part of my questioning framework is dedicated towards corporate governance (CG). After all, having a solid CG structure in place should minimise incidents of accounting frauds and resource abuse (Pica 2011) among the top management of listed companies. CG related literature content will be covered in detail in section 2.8.1.

Following that, I look at research papers that explored the feasibility of business model analysis (Wirtz 2011). In short, I am trying to understand whether it is possible in the first place to conduct a robust business model analysis. For this, the literature review has uncovered the following criticisms:

1. Some business model variables have simply been too dynamic (Wirtz 2011), such that it is virtually impossible to generalise out a useful template.
2. An abstract checklist tends to have limited practicality (Yunus, Moingeon & Ortega 2010) while a specific set of guidelines is redundant

(Zott & Amit 2010) the moment it is applied to out-of-sample companies within the same industry.

3. Research papers on business model analysis often look for "silver bullet" determinative factors behind the successes and failures of companies. Indeed, some of these research papers even attempt to extrapolate newly discovered determinative factors onto out-of-sample data and/or situation (Teece 2010) in the hope that causality relationships will be repetitive. This search for vigorous causality relationships is impractical (Zott *et al.* 2010) given that the exact environment never occurs twice in practice.

As observed, these research papers (Burkhart 2011) attempt the classical "hard science" analytical approach during business model analysis. Classical approach emphasises the following style of analysis (Jankowicz 2011):

1. Document your observation.
2. State your assumptions.
3. Deploy a mathematical model, logical framework and/or laboratory test.
4. Come up with a conclusion based on your analysis.

There are two major pre-conditions for the above analytical approach to be feasible:

1. There exists a strict and linear causality relationship.
2. Out-of-sample test (extrapolation) is repetitive.

In the real world, causation factors tend to be infinite and laboratory conditions seldom exists. When forcefully applying the classical approach onto business model research, datamining bias and over analysis (Jankowicz 2011) can occur.

In real-life situation, the analytical process itself might therefore become more important (Williams 2007) than the results. This is especially more so when business environment changes with time rendering previously established causality relationships inaccurate. The robust analytical process on the other hand can be modified and redeployed to examine new changes, new issues and in a new environment. This is precisely why the research process itself is more pertinent (Adams *et al.* 2007) than the end results. My proposed framework of questions should therefore serve as a starting point instead of an end-all for users keen to understand the business model of REITs.

Additionally, one should also avoid the analysis of business model from a contemporary standpoint. In fact, where possible, one should regress back in time and put yourself in the shoes of the top management during that point in time. Through subjecting oneself to the exact confines and constraints faced by the top management back then (Wirtz 2011), more objective conclusions can be made.

And this is why the interviewing stage of my research becomes so important. First, desktop research at its very best equates to a third-party researcher tackling an issue from an outside-in perspective (Brink 1993). Second, even for a researcher like me who has working experience within the REIT industry, it remains technically impossible for me to possess sufficient working experience across all sub sectors within the REIT industry. Third, through the direct interactions among various industry practitioners through the Delphi interviewing process, useful insights and never-thought-of perspectives are more likely to surface out (Gordon & Glenn 2009).

The rest of the literature review explores relevant research papers that touch on the operational dynamics of the REIT industry. Those research papers may not be narrating on business model directly, if at all. The key objective during this stage is to enhance my understanding of the major areas of risk, sources of profit and role of regulator within the REIT industry.

2.6 REIT industry literature in brief

Most of the research has concentrated on the United States market. Given United States' maiden entry into the listed REITs universe, she has naturally become the center of international REITs research (EY 2016) and often set the benchmark for similar research conducted on other countries. Since the United States dominates the REIT industry universe, I initiate the literature review of the REIT industry with The United States.

2.6.1 What exactly constitutes a REIT?

Any company that possesses and operates an income-producing physical property as its core business is considered an REIT (HK Financial Services Development Council 2013). The origins of REIT could be traced back to the 1960s in the US. REITs was not formally recognised as a distinct asset class until November 2014 when it finally did so under the Global Industry Classification Standard (Teek 2017).

The types of real asset underlying a REIT can range from residential, office, commercial, logistic, healthcare, hospitality and industrial to other more specialised usage category (Atchison & Yeung 2014). REITs also come in either private or publicly listed structures (Slattery *et al.* 2010).

In the US, REITs were originally developed (Souza 2000) to fund real estate (Cohen & Steers 2012), like the structure where mutual funds were developed to fund equity investment. Relative to mutual funds however, the REIT structure has one distinct advantage: if REITs paid out more than 90 percent of their net operating earnings back to unit holders, they are absolved (Farnworth 2009) from paying federal income tax.

To obtain their listing status in the US, REITs need to ensure that five or fewer individuals as a group cannot own more than 50 percent of total shares outstanding. Also, there must be at least 100 shareholders. But unlike most of their counterparts in APAC however, REITs listed in the US has no gearing restriction (Atchison & Yeung 2014).

In addition, at least 95 percent of assets under portfolio must be invested in income-producing assets. Also, 75 percent of these assets must be held in the forms of real estate, government securities and/or cash (Atchison & Yeung 2014). Finally, listed REITs in US can invest in real estate development project[21].

In the US, there are two variations of REITs, namely equity based, and mortgage based (Feldman *et al.* 2013). Equity based REITs held direct ownership on conventional income-producing assets such as office buildings, shopping malls, hospitals, hotels, resorts, data centers and more exotic assets such as phone towers, timberlands, and power plants. Equity based REITs lease out real assets to tenants. The trust managers usually outsourced (Widmann 2007) the physical management of the estate and facilities to property management companies who may be a subsidiary of the sponsor.

Equity based REITs are different from listed property companies in several aspects. First, equity-based REITs are restricted by law to invest a huge percentage of their assets on income-producing real estate (Cohen & Steers 2012). Listed property companies, on the other hand can engage in a wider spectrum of economic transactions. Second, in terms of income profile, equity-based REITs predominantly source their return from rental whereas listed property companies derive their return from a combination of developmental profit, sales of asset and rental (Lazard 2016).

[21] *Real estate development project refers to non-income generating assets that are in process of building.*

Third, the cash flow of property companies tends to fluctuate widely with their asset developmental cycle, whereas equity-based REITs enjoy relatively stable cash inflow from their rental income (Cohen & Steers 2012). Finally, the 90 percent payout ratio ruling mandated REITs to maintain a relatively predictable dividend policy whereas for property companies, dividend policy each year can vary at the discretion of the management (Slattery *et al.* 2010)

Mortgage based REITs on the other hand do not directly invest (Ritter 2011) in physical property. Instead, they finance property owners to purchase real estate. In addition, mortgage-based REITs also invest in mortgage-backed securities. The cash flow of these REITs originates from the mortgage loan and/or mortgage-backed securities interest payment.

The business model of mortgage-based REITs is therefore more sensitive to changes in mortgage rate, intensity of pre-payment and credit default rate of debtors (Ritter 2011). Mortgage based REITs are more common in the US and not common (Gaynor & Portal 2015) in both Hong Kong and Singapore. Henceforth, my literature review will not focus on mortgage-based REITs.

2.6.2 Key factors that influence the business model of REITs

Under most circumstances, three major factors underpin the demand for REITs (Lazard 2016). They are economic growth, demographics as well as short term demand and supply dynamics.

Economic growth results in more physical clustering of human activities in concentrated geographical pockets (Gordon *et al.* 2014). The demand for more space in these pockets naturally leads to positive rent reversion for offices and residential units benefiting office and residential REITs.

Besides increased demand for office spaces and residential apartments to seat and house the additional labor force, the positive chain reaction from economic growth also reverberates (Hektar 2008) to other segments of the society.

First, the perceived and actual wealth effect from the economic growth tend to motivate the population to spend more (Virani & Kaur 2015) benefiting retail businesses in shops and shopping malls. This will lead to stronger demand and higher rents for retail REITs. Second, with more consumption, there will be additional need for factory and warehouse space to manufacture and store the goods (Guittat *et al.* 2015). That will benefit industrial REITs.

Demographics changes include organic population growth, migration trend and aging profile. The organic population growth rate of many developed countries has fallen below natural fertility replacement rate[22]. For these countries, they rely on inward migration for population growth. For developed cities such as Hong Kong and Singapore with negligible natural resources, this reliance on inward migration for prosperity has been especially pronounced (Tan *et al.* 2015). Without a vibrant and youthful population, the income tax base will shrink in time with a greying population. When more citizens retire, the net contribution to social security accounts will turn to net withdrawal rendering the entire system unsustainable (Aoki 2012).

Because of that, both Hong Kong and Singapore have always remained immigration friendly cities. Immigration friendly policy has therefore been a major push factor for the price and rent of real estate (Chang *et al.* 2016) in these cities. An example at the other extreme is Japan where despite having an organic population growth rate that is way below the natural fertility replacement rate, her immigration policy has been anything but friendly (Kodama 2015). For that, United Nations has estimated that by 2050, Japan will lose about 15 percent[23] of its population as at 2016. Accordingly, prices of real estate in Japan have been stagnant at the level since their real estate bubbles busted in the late 1980s. Indeed, housing demand has dropped so rapidly that vacancy rate in Tokyo Metropolitan area can go up to as high as 15.8 percent[24]. And once we moved out of Tokyo 23 wards, the vacancy rate can shoot up to 50.5 percent[25].

Short term demand and supply dynamics is the third and most visible factor driving property prices. While economic growth and demographics are megatrend factors that shift the pendulum of property prices, their knock-on effect remain relatively gradual (Chang *et al.* 2016). Real and perceived changes in the demand and supply dynamics of real estate however could lead to rapid escalation or plunge in property prices (Chiang 2014). And once speculation activity intensifies, prices can be detached from conventional measure of affordability (Evans & Gilliland 2017).

Classic examples of how changes in the short-term demand and supply dynamics of properties had temporarily overwrite demographics to register their footprints on property prices can be found in Hong Kong and Singapore.

---

[22] *This figure is 2.1 children per woman in developed countries.*
[23] *http://www.japantimes.co.jp/community/2016/02/10/voices/japan-birth-rate-beginning-end-just-new-beginning/#.WYfxB4SGNQI*
[24] *Toshima-ku area inside Tokyo Metropolitan area.*
[25] *Nasu Town, Tochigi in greater Tokyo Area. This huge vacancy rates are the results of a declining population, increase in supply, increase in the number of abandoned units and holiday homes that are not occupied all-year round.*

With a population of 7.38 million spreading across 1,104 square kilometers, Hong Kong houses the 4th densest population in the world – 6,684 people per square kilometers in 2016. But if the natural reserve that occupies more than 40% of total land area is excluded from the calculation, Hong Kong will clinch the top spot for being the most densely populated city on Earth.

An average 60 square meter private apartment in the heartland area[26] of Hong Kong New Territories costs around US$1.09 million[27]. The median household income for a family in Hong Kong as at the end of 2016 was US$ 3,201[28]. Assuming this family can save US$1,000 per month, that is a net saving of US$12,000 per annum. The minimum down payment requires for private housing is 30 percent which amounts to US$327,000. To save this amount, our median family will need 27.3 years. Further assuming that after 27.3 years, our median income family in Hong Kong is ready to take up a 30-year mortgage to purchase their 60-square meter dream house. The monthly installment will be US$2,630. In total, the median income family of 4 will need 57.3 years to pay up everything.

This scenario may appear unsustainable, but the reality has been anything but hasher. First, I have assumed that the price of the 60-square meter private apartment remains stagnant at US$1.09 million 27.3 years later. Second, I have assumed mortgage interest rate to be flat at 1.5 percent throughout the 30 years housing installment cycle. In reality, interest rate is a dynamic figure. Third, I have intrinsically assumed the median income of this household to increase at a compounding rate of 3.65 percent for 27.3 years. Fourth, the saving rate of the household is assumed to be at least 80 percent. And I have yet to factor in any income and property tax.

The housing situation in Singapore has not been as severe, but nonetheless still serves as a good demonstration of how short-term demand and supply dynamics can heavily influence the pricing structure. Singapore had a population of 5.61 million spreading across 719.1 square kilometer in 2016. Its population density is 7,798 people per square kilometer, currently ranked 3rd in the world. The median household income is US$6,504[29] and the average 60 square meters private apartment cost around US$625k. Using the same set of assumptions as the Hong Kong median household example, it will take the Singapore median household 9.6 years to accumulate their savings to pay for the down payment while the mortgage loan would take 18.5 years to be

---

[26] Heartland refers to the region that is relatively distant from the CBD of a city, where the medium class population dwell in.

[27] USD to HKD exchange rate used is HKD 7.81 per USD.

[28] http://www.bycensus2016.gov.hk/data/16bc-summary-results.pdf

[29] https://www.singstat.gov.sg/docs/default-source/default-document-library/publications/publications_and_papers/household_income_and_expenditure/pp-s23.pdf

paid off. In total, the median income family will need 28.1 years to pay off everything.

When housing price detaches from general affordability, natural forces of demand and supply should have adjusted accordingly to stabilise the property prices. The fact cannot be more contrary than that. Since the 2003 real estate market crash, property prices have been on steady increase, and long exceeded its previous peak during 1997 (Kan & Kuo 2011) in Hong Kong. And all these are taking place in an environment of aging population, low birth rate and stagnant job markets for college graduates.

As observed, similar sets of environmental parameters are present in both Hong Kong and Singapore, yet the resulting housing affordability has been relatively healthier in Singapore. Both Hong Kong and Singapore have initiated public housing schemes[30], suffer from a lack of physical space due to geographical constraints, been dealt with heavy governmental intervention in housing policies and both adopting an oligopolistic industry market structure. Due to differing sets of short-term demand and supply dynamics, the detachment from affordability has been far more severe in Hong Kong relative to Singapore (Tan 2016).

Having narrated the three key factors cited by most research papers, I move on to examine the insights from the practitioner domain.

2.6.3 Insights from the practitioner domain

First, I look at the key financial numbers that equity analyst and asset manager focus on when analysing listed REITs:

- Fund Flow from Operation, also known as FFO in Shahar *et al.* (2010), Turkmen & Demirel (2012) and Souza (2000).

- Adjusted Fund Flow from Operation, also known as AFFO in Spector *et al.* (2013) and Lazard Asset Management (2017) – AFFO is FFO after having net out physical asset enhancement expenditures and non-cash revenue. AFFO is a better measure of a REIT's ability to sustain its dividend policy in the long run than FFO.

- Dividend yield (Mohamad & Zolkifli 2012) - the divided yield of an REIT is inversely proportional to its share price (Chiang 2014). This feature

[30] *Public housing in Hong Kong accounted for 50 percent of total housing units. The figure for Singapore is 80 percent.*

is similar (Olanrele 2014) in some degree to the yield-to-maturity of a plain vanilla bond.

- Book value per share (Dinh *et al.* 2013) – also known as net asset value per share (Mohamad & Zolkifli 2012) or BVPS

- Price-to-book value per share (PBR) - from Turkmen & Demirel (2012) and Edwards *et al.* (2011).

- Property revaluations – from Olanrele (2014) and Lazard Asset Management (2017).

- Capitalisation rates (Lazard 2016).

Second, through inferring from the above list of key financial metrics and examining the commonly used industry statistics, I proceed to examine the key attributes of interest to equity analysts and asset managers:

- Income stability – dividend payout history provides a glimpse of this inherent stability. REITs' income originates from rents which fluctuates with change in economic condition, physical enhancement made to properties and specific supply versus demand dynamics (Atchison & Yeung 2014).

- Income growth potential – derived from rental reversion and yield accretive[31] acquisition. To be more specific, there must be quality assets available for acquisition to maintain a growth story (DeNicolo & Herbert 2017) as well as the availability of these real assets at an attractive price (Hwa & Rahman 2007).

- Asset quality (Sundareswaran 2015) – in terms of age and geographical distribution.

- Type of asset class (Strange & Tang 2000).

- A pipeline of brownfield assets from sponsor available to be injected (Erol & Ozuturk 2011). REITs that do not possess such pipelines might

---

[31] *Even though size does offer economies of scale, new acquisitions that do not provide integration and synergies to portfolios will more than offset the benefits that comes with size. Making real estate acquisitions that are yield accretive are therefore paramount for REITs.*

have to venture into green fields[32], and with it the associated bigger risks (Said, Daud & Olanrele 2015).

- Presence of a sponsor – the sponsor of a REIT is the original private owner of the REIT's assets. Usually, post IPO, the sponsor remains as the biggest shareholder. Having a sponsor in place is a double-edged sword (Flatscher *et al.* 2011). To begin with, if there has been a first right-of-refusal clause being tied into the listing document, the sponsor is obligated to sell any assets to the sponsored REIT first before releasing it to the open market. On the other hand, however, the prices of such transactions might be above fair market valuation and the deal can still go through, at the expenses of other unitholders (Newell 2004).

- Rental lease expiry profile – presence of an anchored tenant, business model sustainability of the anchored tenant and having in place a well staggered rental lease expiry profile (Goett *et al.* 2016).

- Average tenant lease length – both short and long tenant leases come with their fair share of pros and cons (Spector *et al.* 2013). For short lease in a bullish property market, REITs can benefit quickly from resetting their rental to the higher market rates. The opposite scenario of a bearish property market benefits REITs with long tenant leases as it protects them from the deteriorating market conditions. This protection however is only valid if the tenants do not break their rental contracts and continue to pay their rents on time (Kan 2011).

- Diversity of tenant base – presence of an anchored tenant versus a well-diversified pool comprising of multiple small tenants. Both sets of tenant base come with their specific risks (Briddell & Supple 2011).

- Rental lease renewal strategy and the corresponding implementation.

- Debt profile – this includes staggered maturity versus bullet maturity and floating interest rate versus fixed rate.

- Asset enhancement activities (AEI) – these activities include more efficient use of space and/or renovation.

---

[32] *Green fields refer to unfamiliar territories which may be another new sector or overseas ventures.*

- Relevant macroeconomics statistics – these include GDP growth rate, property business cycle (Sing 2005) and LIBOR rate as well as FOREX rate volatility. The adverse impact from FOREX rate volatility depends on the degree of hedging undertaken by the REIT as well as how matched the hedging has been executed.

- Favorable governmental policy towards the REITs industry – a very good example would be the stamp duty[33] exemption (Sing 2005) given to REITs listed on SGX for any real estate acquisitions during the 5-year window period starting from 2005.

- Asset base – economies of scale can be gained in the form of:
    - Lower management cost per dollar of asset managed.
    - Lower cost of debt funding (Turkmen & Demirel 2012).
    - Lower cost of equity (Turkmen & Demirel 2012).
    - Enhancement to brand equity.
    - More bargaining power with stakeholders[34] within the ecosystem.

Third, I obtain insights from credit rating agencies that specialised in rating the holding structure and debts of REITs (Pefindo 2016):

- Occupancy and base rental rates relative to peers and market average.
- Valuation reports of individual properties under the REIT portfolio.
- Asset age.
- Surrounding environment of real estate - is it vulnerable to natural disasters? Does it come with basic amenities?
- Construction quality.
- Brand image of the property.
- Asset type concentration – among the office, retail, industrial, residential, hospitality and healthcare sectors.
- Asset geographical distribution.
- Tenant profile - presence of anchor tenant, diversity of tenants' business model, weighted average lease to expiry, recent track records of tenant retention rate and financial health of key tenants.
- Changes in legal and regulatory rulings that might have an impact on the operations of REITs.
- Management strategy – yield accretive acquisition implementation capability, rental reversion potential, asset enhancement plan as well as other positive or negative demonstration of its ability to execute.

---

[33] *The prevailing stamp duty during that period was 3 percent.*
[34] *According to Porter's 5 forces, the relevant stake holders are customers, suppliers, and competitors.*

- Capital structure and financial policy – debt structure, debt maturity, yield management and FOREX reserve management.

Naturally, the next step would be to undertake the same with papers from the academic domain.

2.6.4 Insights from the academic domain

Factors arising from interconnectedness and complexity

The global financial crisis in 2008 is the worst financial crisis since the Great Depression. Originally triggered in the United States, the eventual impact spread rapidly throughout the rest of the world through a highly convoluted network (Acemoglu *et al.* 2015) made up of stakeholders and entities within and outside of the capital markets. Because of the deeply entrenched interconnectedness among these stakeholders and entities, the funding for many crucial infrastructural development, business start-up and production line were overnight put on hold. The repo markets were also severely affected which eventually led to the collapse of some banks (Aldasoro *et al.* 2015) as well as a decline of the global GDP. Left unchecked, it could eventually develop into the second Great Depression (Aswani 2015).

Most of the economic activities affected by the GFC was not directly related to the US real estate market and even less so to the root cause of GFC – the US subprime market. However, according to Aswani (2015), because of the widespread issuance of highly opaque and complicated credit default swaps by investment banks, many institutional and retail investors were caught off guard by the degree of their exposure to these toxic derivative subprime products. To make matters worse, most investors were not even sold the subprime mortgage products directly but instead were holding onto hard-to-understand junior tranches of its derivative. During normal market conditions, these investments would have generated higher than market return. The GFC however turned out to be (Battiston *et al.* 2015) anything but normal.

Against this macroeconomic background, any business model analysis is not complete without inspecting the importance of interconnectedness as a pertinent dimension of systemic risk (Boulton, *et al.* 2015). Since the GFC, gaining a better understanding of the risks related to interconnectedness has been a leading objective of many academics and policymakers globally (Gabrieli *et al.* 2015). Indeed, Gary, *et al.* (2015) demonstrates that global financial networks tend to be robust and fragile at the same time.

This branch of study involving interconnectedness is also known as the wave of network research. Thus far, the general conclusion uncovered is that up to a certain tipping point, the interconnectedness of modern-day financial systems spread rather than contain the systemic risks. In other words, when the tipping point has been reached, the self-balancing mechanism of the modern day financial eco-system will fail completely and promulgate itself into a negative spiral of contagion defaults (Acemoglu *et al.* 2015). It however remains unclear when and how this tipping point would be attained. To make matters more complicated, the developmental logic of theses contagion risks differs across varying industries.

Conventional regulation addresses these interconnectedness risks through targeting the systemically sensitive nodes within the capital markets. These sensitive nodes usually comprise of financial institutions playing the intermediary role of capital allocation. During times of extreme financial distress, these financial institutions are plagued with high level of debt and opaque maturity transformation (Espinosa-Vega & Russell 2015) that complicate the regulator's attempt in understanding the exact sources of risk and to what degree those risks could magnify to become seismic shocks throughout the capital markets.

Issues relevant to the operational side of the REIT industry

Despite the wide array of property types, most REITs tend to specialise (Turkmen & Demirel 2012) in just one or two types of real estate in its portfolio (Specialist in Public Finance & Government and Finance Division 2006). The informal human network[35] underpinning each property type tends to be small and operates in silo[36]. The appropriate analytical process, valuation mechanism, management expertise required, and the associated regulatory structure is unique for each property type.

The management effort required by each trust manager is therefore optimised if it is concentrated on just one type of property, one informal network and one set of operational protocol. There is empirical evidence for homogenous REITs to outperform diversified REITs in the long run (Lok 2013).

---

[35] As per any industries, REITs managers live and work in small, closely knitted and informal network which comprise of peers in the same industry. These networks serve to disseminate information related to asset disposal, acquisition and the latest trends within the industry.

[36] Commercial, Industrial, residential and hospitality for example have different informal networks. Each network operates in silo and is make up of different individuals. There might be a bit of overlap of memberships among different sub sectors but the overlap is usually minor.

Positive societal spin-offs from REITs

In Asia-Pacific cities such as Hong Kong and Singapore, the rise of REITs has come with huge economic benefits. First, it encourages the movement of funds into property and infrastructural[37] developments. which provide long term benefits to economic growth (Hwa & Rahman 2007), which otherwise would never occur at the current pace without the REIT structure (Fiedler & Wilton 2015).

Second, whenever the REIT structure is initiated within a specific region, it provides companies an opportunity to undertake sales-and-lease back (Said, Daud & Olanrele 2015). This act releases huge amount of working capacity for the companies to expand their core businesses (Berg & Fisch 2015) while continue to rent the respective properties they used to own. Again, this has direct positive impact (Hwa & Rahman 2007) on boosting corporate activities in the local economies (Grinis 2015). One very good example is the listing of Suntec REIT on December 2004 where SGD$722 million was raised from the injection of Suntec retail mall and office towers into the trust. That effectively ended the joint ownership among 11 Hong Kong property tycoons who initiated the project in 1988 (Sing 2005).

Third, the funding structure of REITs is specifically designed such that the underlying assets must generate regular cash flow (Said, Daud & Olanrele 2015). As to the specifics of how and what it takes to achieve a reasonable degree of cash flow predictability, it varies with different regulatory jurisdictions (Gentry & Mayer 2002).

Nevertheless, due to the cash flow predictability requirement[38], REITs as an asset class holds greater appeal among investors with a long holding horizon (Yue 2006). This has led to the reallocation of capital (Szelyes 2014) from the fixed deposit account of retail investors and the low yield bond holding of pension fund to an asset class with higher expected return.

At the same time, REITs also serves the very important purpose of enabling retail investors (Said, Daud & Olanrele 2015) to invest in large-scale, income generating real estate. Otherwise, if the retail investors aspire to gain economic exposure to commercial real estate, they can only to do so through direct purchase which is impractical given the huge amount of capital outlay

---

[37] The underlying assets of REITs can exist in the form of infrastructure assets such as toll road, power plants and bridges. As long as they are able to demonstrate their ability to generate stable cash flows, these assets will have obtained the legal rights to be securitized under the REITs structure.

[38] This cash flow predictability is only reasonable and not 100% guaranteed and is only valid during the initial stage of listing. During the course of its corporate shelf life, the REITs are still exposed to the same macroeconomics volatility and industry specific risk as any other listed companies.

(Obringer 2006). The existence of REITs therefore contributes to an overall improvement of resource allocation (Alcocer *et al.* 2015) within the capital markets.

Having explored the positive role that the REIT industry has played in the capital markets, I will go one level deeper to explore the inner working of REIT at the company level. To be more specific, I shall be examining the corporate culture, change management, resistance to change management and the importance of leadership integrity for a conventional REIT set up.

Change management for REITs

Blanca & Ramona (2016) concludes that most organisations change for the sake of changing instead of directing their efforts to strengthen organisational survival in a more dynamic environment. The study further confirms that incompetent change management team, lack of support from the board and lack of communication across hierarchies have been the key reasons behind change resistance.

Being part of the traditional “brick and mortar” industry, many REITs have also found themselves stuck in the above-mentioned situation (Alcocer *et al.* 2015). Indeed, during the COVID-19 pandemic, many REITs saw their rental income plunged by more than 50% (Akinsomi 2020). Many of them have had to look for new ways to restructure their busines model. Yet, making radical changes in difficult times have turned out to be very difficult for both top management and the employee on the frontline.

During the interviews conducted by Franklin and Aguenza (2016), it was noted that most employees have grown too comfortable with the status quo, viewed the organisational change with animosity and felt a complete lack of clarity with regards to the specific intent behind the organisational change. These feelings of confusion and mistrust often get magnified when several changes took place simultaneously.

Khosa *et al.* (2015) concludes that modern-day organisations have been thriving in a relatively more dynamic ecosystem than their predecessors. This implies that the environment changes much more rapidly than before and with it a greater need for the modern organisation to adopt rapid change as part of their DNA. No specific solution was offered by Blanca & Ramona (2016) and Franklin & Aguenza (2016) even though both papers coincidentally point out a common observation among companies that failed in change management – the employees in these organisations believed that their workplace lacked leadership integrity. Moorman *et al.* (2016) postulates that unlike unethical behavior which is largely a product of situational influence, leadership effectiveness has been more closely related with the core qualities of a person manager or at least the perceived core qualities of a person manger. The paper further suggests that perceived leadership integrity might have been the most dominant influencing factor on follower attitudes and their associated performance. In other words, if a person manger can convince the followers to connect with his or her moral character, value system and behavior, leadership effectiveness becomes optimal.

Moorman *et al.* (2018) goes further to generate a series of observations and tested the associated conclusions. It is found that if the perceived leadership integrity did eventually result in positive outcomes for their followers, the trust and perceived leadership integrity would be reinforced. Such trusting relationships between leaders and their followers' lower transactional cost and contribute towards smooth and effective exchanges. And together with behavior integrity (Tomlinson *et al.* 2014), often defined as how well a person manager walked the talk, both forces contribute towards making an organisation more resilient in face of environmental changes.

In addition, Connelly *et al.* (2015) highlights in their research that once trust has been established, followers no longer need to erect inefficient safeguards or conduct additional analysis on their leaders' directives. Such bypasses tend to speed up organisational reflexes in the face of external changes in the environment. Of course, the implicit assumption remains that the leaders must pursue change directives that benefit the organisation in the long run. I have covered both the macro and micro aspects of what the academic universe have in offer for the operational side of the REIT sector. For the rest of this section, I will be examining the REIT sector from the perspective of a practice and following that the value of practitioner research.

Practice and the value of practitioner research

Most of us usually take the definition of practice for granted. Wu & Pullman (2015) concludes that the value and significance of practice has seldom been self-explanatory and commonly misunderstood. As early as during the ages of Aristotle, the universe of philosophy had already argued that practice was a culturally constructed social activity. Dana (2016) states that all practices began as a temporary framework of collaboration where people gathered to solve a pressing issue. Over time when these people became better at what they did, it becomes their practice.

And even though the evolution of practice varies considerably across different industries, there still exists some common attributes that cut across all industries (Gregson *et al.* 2019). To begin with, all practices initiate their development from a shared understanding of what the practitioners regard as quality work in their field of specialty. Subsequently, new ideas and evidence emerge to challenge these taken-for-granted assumptions. And when enough practitioners adopt the new practices, evolution takes place successfully.

The new idea and evidence seldom originate from top down or outside in. Rather, these positive changes tend to originate from the frontline craftsmen, incrementally and in a ground up manner. Occasionally, new ideas may originate from a different field of practice or even from non-practitioners. Nevertheless, these new ideas still need to go through the natural yet vigorous process of self-selection before they got adopted by enough insiders. Indeed, Loughland & Ellis (2016) have alerted practitioners of those seemingly creative ideas and new experience from retired practitioners. Often, retired practitioners are motivated by their eagerness and sometimes ego to outperform their old ideas rather than due to logical evidence.

Another common attribute that cuts across all practices centered on the importance of maintaining an open culture. Dana *et al.* (2015) concludes that any practice that opts to close itself from external challenge would have sealed its door from improvement. Insiders on the frontline of the practice need to be provided with ample opportunities to talk about what has truly taken place. If not, over time authoritative individuals within the practice will gain god-like status and with it a dogma state where the practice stops evolving with environmental changes.

Finally, the context in which a practice occurs also holds great influence on what will work versus what will not work (Gregson 2020). Anyone that ignores the role played by context (especially cultural context) during the evolution of practice might end up landing hard, misguided and inevitably costly failures. Having discussed the nature and common attributes of practice, I will move on to explore practitioner research.

Contrary to academic research, practitioner research takes place in the workplace, are led by the insiders (craftsman, practitioner, worker) and usually attempts to solve an existing challenge in practice (Campbell & Groundwater-Smith 2010). Practitioner research provides a framework for insiders to challenge usual practices, to recast them and eventually rework them to deal with new challenges.

The first doctorate level research program in professional studies started in the 1970s. That was a milestone event for practitioner driven research. According to Dana (2016), practitioner research occupies a special seat in the research universe dominated by academia. It generates an opportunity for industry experts to better understand the complexity of how their sector functions as well as serves as a conduit for researchers (Biesta 2017) to challenge long standing status quo.

Practitioner research comes in many varieties (Dana *et al.* 2015), such as action learning, problem-based research, and case study. Regardless of their varieties, all of them tend to focus on the role of the practitioner to generate new knowledge from practice (Gregson 2020). To be more specific, practitioner research relies on the intentional reflection of the researcher's professional experience as well as the interpretation of the insights obtained from the community. The boundary between research and work turns fuzzy in the process when the researcher on one hand directs the research and on the other hand serves as one of the subjects being researched upon in the context of his or her full-time career.

There are many reasons behind the rise of practitioner research. Among them, two reasons have been particularly impactful. First, there have been an increasing demand for evidenced-based implementation where the time gap between strategy setting and tactical execution has been greatly reduced (Gregson *et al.* 2019). During such time sensitive instances, decision makers are not interested in seeking out theoretical framework that can withstand the test of time. Instead, they are keener on seeking out solutions that can solve their immediate challenges and in doing so willing to take on the risk of adopting incomplete solutions. Second, the complexity of modern-day industry structure has rendered the traditional route of academia research informing and inspiring practice too slow and cumbersome (Dana 2016). That has led to the pervasive adoption of bilateral exchanges between academia and industry where research takes place simultaneously in both domains while continuously updating both sides of their latest findings.

Having examined the key insights from both the practitioner and academic universe, I will leverage on all insights obtained thus far to dive deeply into the factors influencing the various subsectors within the REIT industry. Post that, I will examine the key CG related factors. The literature review eventually cumulates with an analysis of the key risk factors embedded within the REIT structure.

2.7 Sectorial attributes of REITs

2.7.1 REIT sub sector - Industrial

Industrial REITs own and lease out assets in the form of warehouse, flatted factory, data center and business park. As at 1st Aug 2017, Ascendas REIT has been the largest industrial REIT (A-REIT 2017) by market capitalisation in Singapore. Ascendas REIT portfolio includes facilities such as logistics warehouses, distribution centers, business parks and science parks. Hong Kong does not have any pure play industrial REIT. The closest example of an industrial REIT in Hong Kong would be Prosperity REIT which is a diversified REIT. Specific parameters for gauging industry sentiments include the following (Juillet 2012).

- Total existing stock for private multiple-user factory.
- Total existing stock for private single-user factory.
- Total existing stock for private business park.
- Total existing stock for public business park.
- Total existing stock for private warehouse.
- Total existing stock for public warehouse.
- Total vacant stock.
- Country wide occupancy rate.
- Regional occupancy rate.
- Upcoming supply of multiple-user factory space in gross floor area (GFA).
- Upcoming supply of single-user factory space in GFA.
- Upcoming supply of business park space in GFA
- Upcoming supply of warehouse space in GFA.
- Changes in industrial property price index.
- Changes in transaction volume.
- Consumer spending (Lazard 2016).
- Retail sales (Lazard 2016).
- Import/export statistics (Spector *et al.* 2013).

Occupancy rate has been a dominant statistic commonly cited during the literature review of the industrial REIT subsector. The underlying demand for industrial REITs is largely driven by the economic buoyancy (Spector *et al.* 2013) of the manufacturing sector. In Singapore, the manufacturing sector includes the following sub sectors.

- Transport engineering.
- Precision engineering.

- Chemical manufacturing.
- Biomedical manufacturing.
- Electronic manufacturing.
- Logistics.
- Retailers (Cold storage and food processing).

In Hong Kong, the demand for industrial REITs largely originates from the demand for warehouses and storage hub (Huang 2017). The underlying derived demand in turn originates from the logistics, retail, and ecommerce sub sectors (Chua *et al.* 2013). Given Hong Kong's premium property prices, the demand for self-storage hub service as an alternative to bigger residential space has stayed relatively stable (Snow 2015).

Any statistics pertaining to manufacturing fixed asset investment across the above sub sectors have been scrutinised by analysts and investors. These statistics include (J.P. Morgan 2017):

- Purchasing Manager's Index.
- Non-oil export.
- Non-oil import.
- Inventory and stock of finished goods.
- Oil price.

In Singapore, factory space accounted for 75.2 percent of total industrial REITs GFA, followed by warehouse at 20.2 percent and business park at 4.6 percent as at 31st March 2016. Due to surplus space supply and a challenging business climate, there is a trend towards consolidation (Tan & Song 2016) among businesses.

Because of that, tenants are now able to optimise their factory space usage through combining previously segregated pockets of floor demand when these companies were separate entities. Following this wave of consolidation, total demand for factory space has been heading for a down trend in Singapore (Tan *et al.* 2015).

In Hong Kong, as at 31st March 2016, flatted factory space accounted for 80 percent of total industrial GFA, followed by private storage hub at 16.9 percent and dual-purpose industrial/office buildings at 3.1 percent (Tang 2017).

Industrial spaces can be converted to fit a wide variety of usage at short notice (Dawson & Matthews 2014). Supply of industrial spaces across most sub sectors could therefore substitute among themselves in competition for rental income. This characteristic however might not hold for most single-user factory REITs.

The elasticity of demand for single-usage factory space tends to be lower than that for multiple-usage factory space. The rationale is that the sublet tenants under a single-usage factory would have been thriving across the value chain in a single industry. Under such settings, the economic benefits of being located close to one another would have been highly tangible and outweigh the cost savings from relocation (Chang *et al.* 2016).

And as the tenants of single-usage factory typically have unique logistical demand for their core business operations, they would be more willing to pay premium rent for customised central facilities and location (Shih 2017).

For example, if the factories and warehouses were originally designed and built with the intention of amalgamating them into a sophisticated logistics network, tenants in just-in-time manufacturing, biomedical manufacturing and other high value-add sectors would be willing to rent them at premium rates.

Oh & Shin (2016) uncovers quantitative evidence for the deterministic factors of warehouse rents. Affirmative factors include wider adjacent street, accessibility to expressways as well as nearby cities, and the presence of frozen storage facilities. Detrimental factors include old buildings and presence of conglomerate tenants. As explained previously, old industrial warehouses have been finding it tough to compete with newer warehouses in terms of both architectural design and automation technology.

In both Hong Kong and Singapore, the rise of e-commerce has been driving strong demand (Brennan 2016) for warehousing, storage hub and data center. Relative to traditional factory spaces, these new industrial facilities come with different demand and supply dynamics as well as require more customisation and sophistication in property management (Guittat *et al.* 2015).

Industrial REITs go through similar business cycles (Thomas 2017) as the underlying industries of their tenants. This aspect is also visible at the national level where after certain core industries have contributed their share of economic growth to a nation for a few decades, their business outlook started to decline (Marra *et al.* 2017). Very soon, revenue and profit for these near obsolete incumbents dropped to below the sustainable level.

These companies are now faced with three choices – either relocate to cheaper countries to operate, cut down their scale of production or revamped their core business models (Pratap 2014). Regardless of which option these companies adopt, cost cutting and reducing their rented factory space would be on top of their priority list.

For the landlords (REITs) to sustain their business models, they will need to reinvent themselves to attract (Kejriwal *et al.* 2016) newer, higher-value added and knowledge-based manufacturing industries. Industrial REITs therefore need to reinvent themselves through asset enhancements as well as adopting new ways to serve the modern generation of tenants (APREA 2014).

During this transformation process, any government subsidy for value-add industries to come onboard as well as the respective favorable policy changes can play a leading role (Yue 2006) in reversing the sectorial downturn. One good example of favorable change in regulatory policy would be the scaling down of minimum floor tenancy for anchor tenant by the Singapore Government for public factory space leasing from GFA of 1,500 square meters to 1,000 square meters in 2016 (Tan & Song 2016). This move is enacted to complement the trend towards corporate consolidation among manufacturers which has resulted in less demand for factory space.

In Hong Kong, the government has made amendments in its urban redevelopment policy to encourage industrial properties to go through a re-industrialisation process. This process has made it attractive for property owners to refurnish old industrial buildings into office buildings. This policy change was enacted in view of the co-existence of excess industrial space and lack of office space supply in some areas (Law 2016) in 2016.

As a result of the trend towards supply chain optimisation, many third-party logistics providers have started operating mammoth sized logistics centers. (Spector *et al.* 2013). These third-party logistics providers in recent years, become the bedrock of demand for industrial REITs. Also, these third-party logistics providers usually prefer to match their rental lease duration to the contractual period of the underlying distribution agreements signed with their customers. The average duration of these distribution agreements is usually three years.

Relative to other sub sectors in the REIT industry, industrial REITs usually require lower maintenance costs as their interior set-up tend to be simpler and more spacious (Spector *et al.* 2013). Also, due to its simpler architecture, industrial real assets tend to require a much shorter construction period of 6~12 months. This short lead time has resulted in relatively balanced demand and supply cycles. Historically therefore, the occupancy rate for industrial REITs usually hovered above 88 percent (Kan 2011).

2.7.2 REIT sub sector - Hospitality

Hospitality REITs operate hotel and service apartment. This sector has been particularly sensitive to both tourist arrival volume and expatriate talent relocation intensity (Fishbin & Roth 2014). The turnover for hotel accommodation runs daily while the average lease for service apartment is around 3~7 years. Iconic examples of hospitality REITs in Singapore are Ascott Residence Trust and CDL Hospitality Trust. In Hong Kong, that will be New Century REIT and Regal REIT.

Both Hong Kong and Singapore have traditionally been labelled as the focal point for short stay tourism and convention event as well as the financial hub for APAC excluding Japan (Legislative Council Secretariat Research Office 2015). Both recreational and business travel however tend to be relatively vulnerable to downturn in economic cycle, political sensitivity, and perceived disease outbreak. Specific parameters for gauging industry sentiments include the following (Katre *et al.* 2016).

- Changes in tourist arrival numbers.
- Diversity of tourist arrival source.
- Changes in average duration of tourist stay.
- Growth of disposable income (Lazard 2016).
- Changes in consumer sentiment (Lazard 2016).
- Relative fluctuation of domestic currency with respect to US dollar.
- New development in political sensitivities.
- Changes in average daily rate for the various hotel tiers[39].
- Market wide occupancy trend.
- Market wide room availability trend.
- Expected add-on to room supply for the upcoming three years.
- Business spending (Lazard 2016).
- Aggregate statistics for MICE[40] events – highly sensitive to the business cycles of various industries which supply the underlying demand for MICE events and the associated demand for accommodation (Tourism Commission 2016).
- Relevant government blueprints (The Federation of Hong Kong Hotel Owners 2012):
    - Enhancement of transportation infrastructure[41].

---

[39] 5- and 4-Stars hotels would be top tier, 3 Star hotels would be second tier, business budget hotels would be third tier and budget hotels would be fourth tier.
[40] MICE stand for meetings, incentives, conferencing, and exhibitions.
[41] Heavily reliant on the intensity of collaboration among the relevant governmental body. In the case of Singapore, it will be Civil Aviation Authority of Singapore, Land Transport Authority and Tourism Promotion Board. In Hong Kong, that will be the Transport Department, Civil Aviation Department and Travel Industry Authority.

    - Enhancement of tourist hotspots.
    - National tourism promotion campaign.
- Changes in finance industry business cycle and hiring habit (Iacoviello 2015).
- Disruptive innovation within the industry[42] (Buhalis *et al. 2016*).

Plessis & Saayman (2011) uncovers quantitative evidence for the importance of product and service quality as well as brand image on hotel tariffs. The importance of tourism contribution to demand for hospitality REITs is also reaffirmed. Plessis & Saayman (2011) further suggests that relevant staff training did result in better quality service which in turn allowed hotels to charge premium tariffs. In the long run, this should enhance the sustainability of their premium tariff business model.

2.7.3 REIT sub sector - Retail

Retail REITs acquire shopping malls and rent the individual units out to enterprise retailer[43], franchise chain outlet and specialty retailer. Most of the shopping malls in Singapore are owned by REITs. Examples are Plaza Singapura, Bugis Junction, Bugis+, JCube, and Raffles City owned and managed by CapitaLand Mall Trust. In Hong Kong, the biggest retail REIT by market capitalisation has been Link REIT as at August 2017. Link REIT has about 10 million square feet of retail space and 72,000 car park lots (LINK 2017). Together with Champion REIT, the two of them make up the icons of retail REITs in Hong Kong. Specific parameters for gauging industry sentiments include the following (Rahilly 2015).

- Changes in country wide retail net absorption (occupancy).
- Changes in country wide new retail space supply.
- Changes in tourist arrival numbers.
- Diversity of tourist arrival sources.
- Changes in average duration of tourist stay.
- Changes in tourist spending habit.
- Relative fluctuation of domestic currency with respect to US dollar.
- New development in global political sensitivities.
- Trend of median income.
- Changes in consumer spending[44] (Lazard 2016).
- Changes in Consumer Price Index (Lazard 2016).

---

[42] *Dawn of Air-bnb, an Uber equivalent in the short stay lodging industry where private residential units are turned into temporary hotel rooms.*
[43] *Examples of enterprise retailers would be mega-super mart, bowling alley, gym and bank.*
[44] *Retail REITs usually adjust tenants' rental based on the latter sales growth rate.*

- Population growth rate (Lazard 2016).
- GDP growth rate.
- Deflationary risk or the perception of deflation.
- Hiring strength among the core demand sectors[45].
- Residential property buoyancy – create a sense of wealth effect which encourage shopping behavior (Colliers 2017).
- Expected add-on retail space for the upcoming three years.
- Relevant government blueprints (The Federation of Hong Kong Hotel Owners 2012):
    - Enhancement of transportation infrastructure.
    - Enhancement of tourist hotspots[46].
    - National tourism promotion campaign.
- Innovation within the industry[47].

The layout of a shopping mall usually comprises of a mix of office and retail tenants. As such, pure play retail REITs have been rare (ChampionREIT 2016). The demand and supply dynamics of office spaces are different from that of retail and will be discussed in the next section. Besides this mix of retail and office set-up, there is also the SOHO format which is a mix of office and residential spaces.

Occupancy and turnover make up the two key indicators of asset performance. As per most commercial real assets, shopping mall tenants are categorised into anchor and specialty categories. The former usually pays a discounted rental rate per square feet while the latter as a group often accounted for much of the shopping mall rental revenue. Anchor tenant usually has lower turnover rate than specialty tenant (Doherty *et al.* 2016).

For both downtown retail REITs and those located among the residential dwellings of middle-class residents, an investor can simply take a stroll into their shopping malls to observe their foot traffic and occupancy situation. Indeed, relative to other types of REITs, the business model of retail REITs has been comparatively easier and therefore more transparent for investors to comprehend (Gorter *et al. 2001*) and analyse.

The impact from E-commerce on retail traffic has taken a huge toll during the past few years (Brewster & Hould 2015) in both Hong Kong and Singapore. Where feasible, consumers have opted to move away from bricks and mortar stores to online platforms for their retail purchases. The two main reasons for this change in consumption behavior are lower prices and wider varieties.

---

[45] *These sectors include banking and finance, commerce and other professional services.*
[46] *An example is the up-and-coming Changi Airport Terminal 4 in Singapore that will contribute 159,100 square feet of new retail space.*
[47] *The dawn of E-commerce platforms such as Qoo10, Ebay, Amazon and Alibaba.*

Relative to physical stores that must bear recurring rental expenses, online platforms possess the distinct cost advantage. Also, because inventory takes up valuable shelf space in physical store, the online platform again possesses another distinct advantage in terms of product varieties (Bailey & Qian 2016). These cost impacts are especially pronounced in Hong Kong where rental expenses have been the highest in the world (Legislative Council Panel on Development 2017).

The situation in Singapore has been less pessimistic for retail REITs, especially for those shopping malls located within the heartland area[48]. Here, consumers have developed the habits of shopping for daily necessities physically as well as dining out regularly.

The key factors commonly scrutinised by analyst and investor at the individual REIT level are:

- How successful is the promotional campaign across the entire shopping mall flagship?
- Thematic shopping mall management or vendor management[49] and AEI where Suntec REIT's massive renovation during 2015 would be a classic example.
- Occupancy and tenancy turnover rate.

The average lease duration of retail REIT's tenancy is around 3~5 years.

2.7.4 REIT sub sector - Office

Office REITs are also known as commercial REITs. Office REITs usually purchase the entire office buildings, sublet out the individual units and outsource the building management to their subsidiary or to a third-party building management entity. In Singapore, many commercial buildings are owned by REITs. Examples are Capital Tower, Twenty Anson, and HSBC building, owned and managed by CapitaLand Commercial Trust. Specific parameters for gauging industry sentiments include the following (Chang *et al.* 2016).

- Changes in country wide office net absorption (occupancy) as measured in square feet on annual, three-year, and five-year basis.
- Hiring strength among the core demand sectors.

---

[48] Heartlands refer to dwelling region outside CBD where the middle-class population resides in.
[49] Coming up with a strategic mix of luxury, established home grown and niche retail brands that is appropriate for the geographical location and neighboring population culture can be a competitive differentiation factor.

- Corporate profits outlook (Lazard 2016).
- Business segments growth (Lazard 2016).
- Changes in GDP.
- Changes in unemployment rate – according to (Spector *et al.* 2013), job growth has always remained the key driver of office space demand.
- Innovations within the industry[50].
- Changes in country wide office space supply as measured in square feet.
- Expected add-on office space for the upcoming three years.
- Substitutes for central business district (CBD) spaces in the fringe area.

As observed, pertaining to assessing office REITs, occupancy continues to remain as one of the key factors. The demand for office REITs has historically been driven by the economic buoyancy (Song & Tan 2017) of the professional service sectors, which in both Hong Kong and Singapore largely include the following sub sectors.

- Banking.
- Finance.
- Insurance.
- Information Technology.
- Regional HQ of corporations.

Another point worth taking note here is the varying dynamics at work behind different types of office space demand. In Singapore, newer office space typically attracts strong demand from financial institutions, technology giants and government agencies (Cheong *et al. 2016*). This group looks for relatively huge office space at decent prices. On the other hand, older office buildings tend to carter more for small and medium enterprises such as trading firms and the administrative base of manufacturing companies (Song *et al. 2017*).

And as mentioned previously, co-working space has been one of the mega trends going forward (Wright 2016). Cost savings through the maximisation of office space utility has been the key driving force behind this movement. In addition, co-working space tends to support a culture of open communication and the sharing of ideas which is crucial for new age start-ups (Wright 2016).

---

[50] One good example is the partnership between Capital Commercial Trust and co-working space operator – Collective Works. This partnership involved the redevelopment of the entire 12th floor at Capital Tower into a 22,000 square feet co-working space sufficient to house up to 250 companies. It is expected to attract small office space demand from the fin-tech, social media, venture capital and other niche sub sectors. Commercial REITs that are unable to evolve their business models to accommodate such new megatrend underlying demand dynamics will face strong headwinds during the next economic downturn.

Finally, the landscape of office space location has also been changing, towards an increasing focus on providing employees with more work-life balance. Because of that, more companies have opted to locate their offices out of the city and into the heartlands where the middle-class residents are residing in (Keng *et al.* 2014).

Lease profile and duration have been the two most scrutinised attributes by analyst and investor at the individual REIT level, in particularly:

- Average lease maturity – percentage of tenants on long term lease?[51]
- Occupancy and tenancy turnover rate (Long 2014).
- Concentration of underlying real assets in CBD versus outer CBD.

Depending on which zone the underlying real assets are situated in, the average lease for office REITs can range from 5 to 12 years. The average lease for offices in outer CBD zone is usually shorter at 5 to 7 years. The average lease for offices in CBD zone is longer at 10~12 years, with some legacy anchor tenants going for 20-year lease (Spector *et al.* 2013).

Spector *et al.* (2013) recommends paying close attention to potential capital expenditure incurred by office REITs to enhance their real assets. When property market conditions weaken, and tenants have more bargaining power, REITs tend to spend more on physical improvement expenditures. Vice versa, when the property market demand is tight, even poorly maintained office buildings can fetch good prices in the rental market, henceforth lower motivation for REITs to spend on physical enhancements.

Jeong (2011) uncovers quantitative evidence of building age, location, and size of shop to exert significant influences on retail property prices. Retail real assets in prime areas collect higher rents while size of shop tends to be inversely related with average rental rate per square feet. The latter inverse relationship partially reflects the relative lack of bargaining power of small tenants.

2.8 Other unique attributes of REITs

2.8.1 Corporate governance issues

Many listed companies are professionally led by full-time management which may not be the majority shareholders of the listed companies. By that very nature, there will be an embedded principal agency conflict (Anandarajah

[51] *More than 5 years.*

2012). Even for family management dominated listed companies, external minority shareholders often find themselves at the losing end when corporate decisions are made to specifically benefit the controlling family.

Against this background, CG rises to the occasion and becomes commonly presented as one of the most important topics (Fung 2014) for any serious investor. Afterall, an external investor has no access to material non-public information to monitor the quality of management. The presence of a robust CG structure therefore becomes very crucial to safeguard the interest of external shareholders.

In this section, I will look at CG issues specific to the REIT business model which usually originate from ownership, board and management remuneration, and internal control within the REIT structure. With that, I aspire to establish a questioning framework that will reveal the level of transparency and independence of the board.

The key entities within the REIT structure include the following (Pica 2011).

- Manager – the entity responsible for the strategic operation of the REIT.
- Adviser – the entity responsible for advising on real estate acquisition and/or disposal opportunities.
- Trustee – the entity responsible for holding the properties in the trust on behalf of the unit holders and exercising due diligence
- Sponsor – the originator of the properties that have been injected into the trust.

<u>REIT manager</u>: in most Asia jurisdictions[52], REIT managers are externally appointed. The manager is paid a fee by the REIT for their services rendered. In theory, the manager owes a fiduciary duty to act in the best interests of the unitholders (Capozza & Seguin 2000). In practice however, such separation of control from ownership has increased the potential of high agency cost. Indeed, empirical evidence from Capozza & Seguin (2000) demonstrates that REITs with external managers tend to use more debt leverage than REITs with internal managers which accounts for their underperformance in the long run.

REITs in Singapore also adopt this external manager set-up. To deal with the potential agency problem, Singapore regulator has put in place several measures, as follow.

[52] *With the exception of Australia*

- Unlike REITs in the US, debt gearing for REITs in Singapore have been limited to no more than 45% (Song *et al.* 2015). This mandate effectively prevented the external asset manager from overleveraging.

- Making it compulsory for REIT managers to fully disclose all the fees related to acquisition and divestment, especially the portion that would be payable to the asset managers as incentives (Song *et al.* 2015).

Under Singapore regulatory rulings, the REIT manager must be a corporation with a physical office in Singapore. It must be headed by a CEO and at least two other full-time professional employees (Pica 2011). The REIT manager also need to possess at least 5 years of relevant professional experience. It is also mandatory for the REIT manager to abide by the Code of CG[53] for listed companies. On top of that, details of the manager's remuneration must be included in the management agreement upon appointment (Anandarajah 2012). These details include the following:

- The list of commercial services to be undertaken by the manager.
- Basic remuneration.
- Incentive remuneration and the respective calculation methodology.
- Any incentives paid to the manager during property acquisition and disposal as well as the respective calculation methodology.

Under existing legal framework, the fee arrangement cannot be pre-contracted for more than five years. Also, the compensation provision for early termination, if any, cannot exceed the sum of the fixed component of unearned management fee over the remaining term of the contract (Song *et al.* 2015). In addition, the compensation provision for early termination will be void if the manager's termination is due to fraud, insolvency, or negligence of duty.

In the case of Hong Kong, the REIT manager is bounded by the trust deed[54] and owed a fiduciary duty to both the unit holders and trustee (HKEX 2013). Per the Securities and Futures Ordinance, REIT managers must obtain their licenses from SFC. REIT managers are restricted on the number of REIT they could manage at any time (SFC 2017). Also, there are specific requirements

---

[53] *MAS, Section 8.5, in Securities and Futures Act (CAP. 289): Guidelines on Criteria for the Grant of a Capital Markets Services Licence and Representative's Licence (1st October 2002, updated 14 May 2010):11; www.mas.gov.sg/resource/legislation_guidelines/securities_futures/sub_legislation/Licensing_Guidelines_may_2010.pdf).*

[54] *Trust deed details the specific way the REIT should be operated. Trust deed sets the parameters for the manager to operate within. Such details include under what conditions and in what manner should a manager be removed. It also provides information on the powers of the trustee and manger as well as any fees payables to them. In Hong Kong, the trust deed must be filed with the SFC.*

with regards to the qualifications of key personnel. And even though REIT manger could delegate the property management work to a third party, the fiduciary duty owed to unitholders still rest fully with the REIT manager.

To further enhance the structure of CG, the content on the trust deed can be tailored made to mitigate potential agency cost (Pica 2011). First, there must be clear and unambiguous narration of what constitute reasonable manager performance. The details should include tangible key performance indicators, reliable external performance benchmarks as well as specific explanation of the situations in which the asset manager could be ousted. Once all these have been put in place, it would be difficult for asset manager to erect significant barriers for self-entrenchment purpose.

Second, reasonably rewarding outstanding asset manager with equity position in the REIT could align their interests with that of unit holders (Pica 2011). But this should not come at a cost of significantly diluting existing shareholder base. One way of ensuring this interest alignment would be the giving out of incentive-in-kinds where instead of paying out cash bonus to outstanding asset managers, the reward can be substituted with shares of the REIT brought from open market using the REIT's operating expenses. To strengthen the interest alignment further, a reasonable lock-out period should be imposed on the shares rewarded to encourage long-term holding (Pica 2011).

Third, external manager should not have any representation on the board as this would limit the board's capacity to exercise its power independently (Pica 2011). On top of that, it should be stated explicitly on the trust deed that external manager should not have any role in appointing the REIT senior executives. Such power should rest with a contingent of independent directors. Similar governance risk mitigating structure should be used when adjusting the salary (Fung 2014) and bonus of these senior executives.

Finally, the role of the audit committee should be made relatively explicit (Pica 2011) in that they should be the sole entity directing the operations of crucial internal control functions, especially internal audit. At the minimum, internal audit division should always skip both the external manager and internal senior executives to report directly to the audit committee. When all else fails, internal audit should function as the last line of defense (Rodrigo & Smith 2015) against dubious interest behavior. The absolute independence of both the audit committee and internal audit is therefore very important.

<u>REIT adviser</u>: in Singapore, the adviser may or may not be independent from the manager (MAS 2016). The adviser mainly functions as the agent of the

REIT to seek for yield accretive real estate acquisition and/or disposal opportunities. Prior to coming on board however, approval from the REIT trustee must be obtained. To qualify as a REIT adviser, the entity must have at least five years of relevant experience (MAS 2014) in handling real estate assets. In the case of Hong Kong, there has been no specific mention of the role of a REIT adviser (SFC 2014) under existing regulatory guidelines.

REIT trustee: in Hong Kong and Singapore, the trustee possesses fiduciary responsibility towards unit holders. Trustee carries out due diligence to ensure that the manager has been operating within the parameters set out on the trust deed and local laws (Pica 2011). The trustee is usually a bank or subsidiary of a bank and is paid a fee based on a percentage of the REIT's net asset value. Both the trustee and manager of an REIT must be operationally independent of each other to minimise conflict-of-interest (Pica 2011). In Hong Kong, however, both trustee and manager could be under the same holding company if certain conflict-of-interest conditions have been complied with (Pica 2011).

REIT sponsor: in Hong Kong and Singapore, the sponsor usually plays a dominant role during and after an REIT's IPO (Pica 2011). Indeed, one of the major reasons for the formation of a REIT is capital recycling (Song & Tan 2016) where after having injected their real assets into a REIT, the sponsor can retrieve a huge sum of capital back for redeployment. This has been one of the main reasons why REIT sponsors are usually the owners of multiple properties, property developers and/or an operating business with heavy investment in properties.

In both Hong Kong and Singapore, REIT sponsors usually retain substantial shareholding of the REITs post listing. Following that, an independent asset management subsidiary is set up by the sponsors to provide fee-based management services to the REITs. REITs that fall under this structure is known as captive REITs (Sing 2005).

With this captive structure, the REITs can secure a future pipeline of new properties. For if the captive REITs have been guaranteed of the first right-of-refusal by their sponsors, future property disposal from their sponsors must be routed to the REITs first (Sing 2005).

Another subtler advantage is the watch-dog role undertaken by the sponsor. Since the sponsor has retained a substantial shareholding in the REIT, there is strong motivation to ensure that the REIT manager has been making decision based on the sponsor's best interests (Pica 2011). Minority shareholders could then piggyback on this extra pair of eyes for their benefits.

Nonetheless, certain potential CG issues co-existed within the captive REIT structure as well. First, during property sale from the sponsor to the REIT, there is a chance of over valuation which may benefit the sponsor at the expense of minority shareholders (Cline *et al.* 2013). Second, the sponsor may influence the REIT manager to make decisions that benefit themselves, again at the expense of minority shareholders (Bohjalian 2016). Third, if both the asset manager and the property management company are wholly owned subsidiaries of the sponsor, the sponsor can capture the entire stream of fees paid out by the REIT on operational services.

Indeed, some of the external REIT managers are wholly owned subsidiaries of the sponsor. By structuring the REIT in this manner, the sponsor can enjoy regular cash flow through these subsidiaries. And by detaching the asset manager away from the balance sheet of the REIT, accounting figures such as ROE and ROA can be “artificially” improved (Chen *et al. 2014*).

This undetached connection between the sponsor and REIT (Pica 2011) has been a potential breeding ground for conflict-of-interest among captive REITs. Indeed, Hsieh & Sirmans (1991) uncovers empirical evidence of significant underperformance by captive REITs relative to their non-captive counterparts in the US.

In dealing with this potential problem, Singapore regulator put in place several measures, as follow.

- Making it compulsory for REITs to elect a board of independent directors (Nestoras 2007).
- Optimal disclosure of relevant information during property acquisitions.
- Demonstrate sufficient prudence and undertake thorough due diligence analysis prior to each property acquisition (Pica 2011).
- Detail explanation of why the management had considered an acquisition to be yield accretive (Pica 2011).
- Requiring two independent valuations of the target acquisition.
- Connected party transactions are permitted but must be fully disclosed.

<u>Real asset appraisal</u>: real estate as an asset class made up the bulk on the asset side of a REIT balance sheet. Because of that, there is legal mandate for REITs to appoint independent valuator to appraise their real assets on an annual basis (Marriott & Smith 2017) at least. In Singapore, the valuator must disclose to the trustee whether it has other pending business transactions. And in both Hong Kong and Singapore, REITs cannot appoint the same valuator to value the same property for more than two consecutive years (Marriott & Smith 2017).

Incentives of trust manager: it has been a common practice to bind part of the bonus incentives of the trust manager to the REIT's NAV. The argument is that trust managers will be motivated to grow the asset under management (Pica 2011), for the benefit of unit holders. This practice however is not without demerits. First, it may encourage the manager to embark on an acquisition spree (Pica 2011). During property market peak where valuation is sky high, managers may acquire properties that are yield erosive in the long run. The historical experience of MacArthur Cook Industrial REIT draconian share dilutive recapitalisation saga during 2009 was a classic example.

Back then, the Australia asset dominated REIT had difficulties refinancing their debt immediately after the Global Financial Crisis and opted to tap onto extremely share dilutive equity raising exercises to salvage their financial distress. Before the Global Financial Crisis, the REITs had been relying on "cheap money" to execute a series of real assets acquisitions.

Second, tying the remuneration of manager with the size of NAV may encourage short termism behavior (Staples 2015) at the expense of forgoing long-term benefits. When the manager becomes overly concern with the size of NAV which correlates with changes in market forces and property cycle, the sustainability of rental yield may be compromised (Staples 2015). Due to the competitive nature of the industry, it typically requires a lot of effort and focus to upkeep rental yield. Therefore, it would be ideal if the remuneration of the REIT manager can be tied up with yield sustainability (Pica 2011) instead.

Connected-party transaction: in Hong Kong, connected-party transaction is defined as any transaction involving any connected person as defined in Section 8.1 of the REIT code or which involved two or more REITs managed by the same manager (Pica 2011). The definition of connected person and/or parties include:

- REIT manager.
- Property valuator.
- Trustee.
- Significant unit holder which is defined as any entity that owns more than 10 percent of total outstanding units.
- Director, senior executive, and officer of holding company and associated company from all the above entities.

For connected-party transactions, announcement must be made unless the value of the transaction does not exceed HK$1 million (Pica 2011). A summary of these transactions must be published during the next interim and/or annual report. And if the transaction exceeded more than 5 percent of NAV, unitholder approval must be obtained through an ordinary resolution and voting by poll. All the connected parties in these transactions must abstain from voting (APREA 2011).

In Singapore, the relevant regulation has been relatively similar and came with a more detailed list of what needs to be disclosed during connected-party transactions. These details include but are not limited to the identities and relationships of the related entities, details on pricing, asset, valuation and expected impact on rental yield (Pica 2011).

Two independent valuations are required for each connected-party transaction, out of which one must be appointed independently by the trustee. During asset acquisition, the eventual transaction price cannot be higher than the higher of these two valuations to safeguard the interests of minority stakeholders. For the same reason, during asset disposal, the eventual transaction price should not be lower than the lower of the two valuations (Pica 2011).

<u>Rights issue</u>: to take advantage of the corporate tax transparency inherent within trust structure, REITs must distribute more than 90 percent of net profit to unit holders. Together with regulatory limitation on debt gearing, REITs often had to rely on issuing new units to raise the required capital during asset acquisition. In Hong Kong, all new rights issues must be offered on a pro-rata basis before they can be issued to new unitholders (HK Financial Services Development Council 2013).

If the new issues of rights are not offered to existing unitholders on a pro-rate basis, the process is known as non-preemptive rights issuance (ISS 2016). For both Hong Kong and Singapore, the legal rulings governing non-preemptive rights issuance have been quite similar:

- More than 50 percent of shareholdings must agree to it during AGMs or EGMs.
- The total new units issued during the current financial year cannot increase the total number of units outstanding from the previous financial year by more than 20 percent.
- Maximum discount for the exercise price of the rights issuance is 20 percent in Hong Kong and 10 percent in Singapore.

Once the mandate for non-preemptive rights issuance has been passed, it is valid for one year or until the next AGM in Hong Kong. For Singapore, the mandate is valid until the next AGM.

2.8.2 Potential risks inherent within the REIT structure

Functionally, the REIT is akin to a pooled fund set up exclusively to invest on income-producing real estate. As previously mentioned, there is strict legal mandate on the minimum percentage of a REIT's asset that must be held in the form of income generating real estate. In Singapore, this percentage has been 75 while that in Hong Kong has been 90. Because of that, REITs are exposed to the same systemic trends and shocks in the respective property markets (Sing 2005).

For public REITs, their pricings are relatively correlated with general stock market volatility. A study by Ghosh *et al.* (1996) demonstrated that the pricing volatility of US public REITs during the 1980s had been relatively uncorrelated with stock market movement. Post 1990s however, US public REITs started to behave more like stock. This implies the diversification benefit from adding REITs to a portfolio of public equities has diminished over time (Glascock *et al.* 2000). The correlation with market equity movement though existed has not been very strong for public REITs in both Hong Kong and Singapore (Kim & Schindler 2011).

The regulatory mandate[55] for REITs to distribute more than 90 percent of its earnings has been a double-edged sword. For a start, this mandate ensures that if the underlying real assets of the REIT have been profitable (HK Financial Services Development Council 2013), unit holders are assured of a stable stream of rental income.

On the other hand, managers of REITs also needed to grow[56] the underlying portfolio of real assets. Since most of the organic cash flow from the underlying real assets cannot be retained to fund new acquisition, REITs must seek funding from external sources.

Two common channels are available for REITs to obtain external funding – incurring new debt and issuing new equity. REITs in Hong Kong and Singapore have been subject to a gearing limit of 45 percent[57]. In practice,

---

[55] To retain its tax transparency status, this 90 percent distribution ruling must be maintained at all times.
[56] REIT manager can of course opt to maintain status quo and refrain from making any acquisition. There are however two drawbacks with this behavior. First, it will deprive the managers out of an opportunity to earn a fee from asset acquisition. Second, REITs management might face pressure from unitholders if they opt to adopt this no growth approach.
[57] This gearing is measured as a percentage of total assets.

REITs seldom gear themselves close to this upper limit (Linklaters 2006). The reason being the value of their underlying real assets is not a static value. During the annual asset appraisal cycle, value of their underlying real assets changes with market conditions (Marriott & Smith 2017). If the gearing ratio of a REIT is close to 45 percent and the newly appraised value of its real assets declined, the REIT will be forced to either sold off some of its assets or raise additional equity capital at short notice to bring down its debt ratio. Both types of corporate actions can seldom be completed at short notice. Even in the rare occasion when it is possible, the cost[58] and expense[59] would have been exorbitant.

Because of that, Debt as a source of funding new acquisition has typically been used up to around 35 ~ 38 percent (Kaspar & Roth 2016) of total asset. Beyond that, REITs will seek for external funding through issuing new equity. That typically will be achieved through a rights issue.

The rights will usually be issued on a pro-rata basics whereby all existing unitholders will be given a first right of refusal to apply for their allocated units. To encourage subscription from existing unitholders, the rights is priced at a slight discount to open market share price. This discount rate usually ranges from 5 ~ 10 percent (Galloway 2014).

After a right issue, existing unitholders are faced with two choices – either to cough up more money to buy the allocated rights or forfeit their allotments and suffered the agony of having their existing units diluted (Sloactive 2015) once the new units become tradable in the secondary market. Because of that, rights issue has occasionally been touted as a legitimate channel for REIT manager to "extort" extra funding from existing unitholders (Morningstar 2011).

Aside from having to seek extra funding from existing unit holders during acquisitions, there is another significant risk associated with property acquisition by REITs – yield destructive acquisition. According to Marra *et al.* (2017), real asset acquisitions by REITs usually occurred in cluster, and during the peak of property cycle. As a result, what initially appeared to be a yield accretive acquisition may deteriorate into an overvalued purchase that eventually chipped a huge dent off the REIT's balance sheet (Marra *et al. 2017*).

The potential risk from real asset acquisitions does not end here - there is always the possibility that connected party transactions involving the sponsor

[58] Being illiquid assets, selling at short notice would occur at fire sale pricing which is detrimental to unit holders.
[59] Investment banking fees incurred for new equity capital raising at short notice is costly.

injecting real estate into the REITs be carried out in a manner[60] and timing[61] that may benefit the sponsor at the expense of minority unitholders. Pica (2011) and Linklaters (2006) analyse such cases in Hong Kong where even though the acquisitions had followed strict legal procedures and provided sufficient disclosures, both research papers question the underlying intent behind the sponsor.

Another potentially more damaging risk during asset acquisition originates from equity capital raised through issuing new units to institutional investors (Liang 2010). This type of rights issue is fundamentally different from the pro-rata rights issue mentioned previously. First, existing unitholders are not given any first rights-of-refusal (Cambridge Industrial 2006) to purchase any of the new units issued. Second, to attract the interest of institutional investors, the rights issue is usually priced at a steep discount from market price (HKEX 2016). In other words, existing unitholders have no recourse other than to wait for their share units to be diluted once the new issue becomes tradable in the secondary market.

During each financial year, REITs in both Hong Kong and Singapore after obtaining more than 50 percent majority approval at shareholder meetings will be able to issue new units to institutional investors so long as the new units issued does not exceed 20 percent (HKEX 2013) of the total outstanding units as per the end of the last financial year.

The reason given by the REIT management for doing so usually revolved around the need to get onboard new institutional investors for strategic purpose. Marra *et al.* (2017) laments that the "strategic purpose" reasons seldom held any strong grounds. And if the REIT has been captive and the new institutional investors were related to the sponsor, Cline *et al.* (2013) questioned the real intent behind.

As per asset acquisition, there is also potential for questionable corporate practices during asset disposal (Chen *et al.* 2014). Similar to during asset acquisition, connected party transactions during asset disposals is legal so long as the proper disclosures have been adhered to (Pica 2011).

For REITs listed in Hong Kong and Singapore, most of their underlying real assets are in developed economies (Song & Tan 2016). The rental yield from

---

[60] Asset acquisitions might unduly award REIT manager a certain percentage of the underlying assets that does not commensurate with the service rendered. If the manager is a subsidiary of the sponsor, the intention of doing so is undoubtedly questionable.
[61] The sponsor being both the asset seller and controlling unitholder of the REIT have strong asymmetric information advantage.

these properties seldom exceeds 4 percent. To generate a decent yield of 6 to 8 percent, REITs must use debt financing (Chen *et al. 2014*).

Debt tenure for REITs comes in bullet maturity form and is usually much shorter than that of retail housing loans (Song *et al. 2017*). Indeed, debt tenure for REITs seldom exceeds 5 years in practice whereas the average maturity of retail housing loans usually exceeds 15 years (Phillips & So 2016).

Because of that, REITs must refinance and re-negotiate their debt with their creditors once every few years (Pica 2011). Given the short tenure of their debts, REITs prefer to stagger their loans across a range of maturities so that they do not end up having to refinance a huge portion of their debts all at one time (Pica 2011). The above is however an ideal situation that may not always be possible in practice. First, REITs typically go for the best financing option that is available (Phillips & So 2016), which may have occurred during low interest rates era. It would have been more cost effective for REITs to secure as much as possible a portion of their debt financing during such point in time.

If interest rates continue to remain low, it will be business as usual. But once interest rates shoot up and it is time to refinance their loans, these REITs may become insolvent. How REITs spread out their loan financings across different maturities is therefore very important. Also, the terms and conditions of each loan differs drastically. For debt that is based on a floating rate, financing cost may escalate before maturity. For debt that is based on fixed rate, the average financing cost at inception is higher than that of a floating rate loan (Chen *et al. 2014*). Making a good judging call on the loan type at the point of inception is therefore very important.

As observed, REITs' debt financing capability could incur a big impact on their solvency. To secure good financing deals from commercial bankers, REITs must be in good standings among the potential creditors. Quality credit ratings aside, good personal relationships with bankers are crucial as well (Pica 2011). This has been the major reason why professionals with established track records of working in the investment banking industry have been highly sought after in the REIT sector (Phillips & So 2016).

Moving on, conflict of interest issues may arise during the hiring of the property management company as well as during the selection of anchor tenant. To begin with, the property management company may be related to the sponsor or REIT manager. So long as sufficient disclosures have been made, the above arrangement remains perfectly legal.

Investment analysts of REITs therefore pay a lot of attention to examine the details of the fees structure negotiated with the property management company as well as the rental contract signed with the anchor tenants (Chen *et al.* 2014). They also benchmark these terms and conditions with similar arrangements in other REITs.

The aggregate level of fees paid for property management functions is disclosed in IPO prospectus and annual reports. Best practice (Pica 2011) dictates that any performance fees should be paid no frequent than once a year and should be based on a "high-on-high" basis.

This implies that the performance fees will only be payable if the REIT manager has grown the NAV per share to the point that it has exceeded the NAV per share on which performance fees were last calculated. This method has been commonly used in the hedge fund industry and has also been known as the high-water-mark method (Henderson 2016).

2.9 End of chapter summary

Given the complexity of modern-day business models, it has been highly challenging for an individual to achieve holistic understanding of how a firm operates, even for corporate insiders. Even the best attempt at obtaining a clear understanding of how a business operates may be equivalent to a group of blind men touching the elephant.

There are three dominant schools of business model enquiry. The first school focuses exclusively on the attributes that propel or bring down a business model. The second school looks at business model as a cognitive schema while the third school is concerned with looking at business model as a conceptual framework.

Not many research papers have attempted to link up different frames of reference to obtain a holistic picture of the business model. At the same time, it has been generally agreed that business model related research ought to be multi-disciplinary. It is also commonly acknowledged that both business model research and business strategy study have much overlap.

Despite the wide varieties in business model definition, three overarching principles dominated.

1. Business model thrives in an ecosystem with multiple stakeholders.
2. Business model integrates the multiple functions of a company.
3. Business model provides a big picture for vested decision makers in their pursuit for monetary benefits.

A useful business model research should benefit both internal stakeholders (business operators) and external stakeholders (investors and regulators). Insiders can leverage on it as a nimble roadmap to generate profit. Outsiders can use it as a practical framework to understand a target company especially for investment purpose. Together, the research should reduce market information asymmetry, eventually leading to more efficient market resource allocation.

Research methodology wise, the interpretivist approach has been frequently cited during the literature review. There are many reasons supporting this preference. First, business model has predominantly revolved around understanding how the various stakeholders interact with one another. To achieve that, qualitative inputs from these stakeholders are crucial. Second, the workings of business model have always remained dynamic and highly sensitive to environmental changes. This largely limits the practicality of any results obtained through quantitative causality analysis. Third, all stakeholders will look at business model through a tainted frame of reference, subject to their personality biases and professional experience. Researchers therefore must accept that interpretations will not always be objective.

Most business model inquires have initiated their research process through examining the authoritative industry value chain related literature, and further supplemented with primary data from corporate insiders. In some instances, the interviews with corporate insiders have been reiterative. On top of that, deductive approach has seldom been adopted. Two common ontologies in business model related research are the business model ontology and the e3-Value ontology.

Pertaining to research methods, three major routes have been adopted in the literature universe. First route where stock market prices are used in tandem with case studies to filter, map out and generate a list of key success and failure factors. Second route where industry practitioners are interviewed for primary data. Third route where analytical frameworks are borrowed from the strategy management domain to frame up the business model story.

When exploring the literature pertaining to the technical dynamics of the REIT industry, I have split the task into the following logical flow:

- Definition of a REIT and its variations – a brief introduction into the various asset classes, the two major categories of REIT globally and the common regulatory constraints imposed on REITs.

- The three key factors that heavily influenced REIT business model – these three key factors are respectively economic growth, demographic change as well as short term demand and supply dynamics.

- Insights from the practitioner domain – looking at the key financial numbers and associated REIT attributes commonly used by REIT analysts, asset managers and credit rating agencies.

- Insights from the academic domain – the phenomenon of interconnectedness and complexity within global capital markets, diversified versus pure play strategy impact on REIT operations, positive spin-offs of the REIT structure onto specific groups of capital market stakeholders and onto the society in general, change management in the context of REIT, and finally the nature of practice and the associated value of practitioner research.

- The various REIT sub sectors – unique attributes and key factors that influence the performance of assets across the industrial, hospitality, retail and office REIT sub sectors in Hong Kong and Singapore.

- Key CG attributes – the key areas that have been examined include ownership structure, board, and management remuneration as well as specific internal control put in place to address potential agency conflict. On top of that, other potential breeding grounds of governance misbehavior such as real asset appraisal, incentive structure of trust manager, connected party transaction and rights issue.

Finally, the REIT structure itself is examined. The Literature review uncovers several key risk factors inherent within the REIT structure. These are:

- Exposure to systemic shocks from the local real asset market.
- Correlation with equity market volatility.
- 90% cash distribution turned out to be a double-edged sword.
- Yield destructive asset acquisition.
- Legitimate connected party transactions that are ethically questionable.
- Dilutive institutional share issuance.
- Questionable asset disposal.
- Loan maturity concentration.
- Conflict of interest issues during the hiring of property management company and the selection of anchor tenant.

Below is a list of all the key insights I have uncovered during the literature review of the technical content unique for the REIT industry.

Three key factors influencing the demand for REITs

- Economic growth.
- Demographics.
- Short term demand and supply dynamics.

Insights from the practitioner domain

- Financial metrics such as FFO, AFFO, dividend yield, e.t.c.
- Key attributes such as income stability, asset quality, type of asset, rental lease expiry profile, e.t.c.
- From credit rating agency which include occupancy rate, tenant profile, capital structure and financial policy, e.t.c.

Insights from the academic domain

- Factors arising from interconnectedness and complexity - the GFC and the dual status of robustness and fragility.
- Issues relevant to the REIT industry - pure play, resource allocation, corporate culture, leadership integrity, e.t.c.
- Practice and the value of practitioner research - self selection process, open culture, importance of context, e.t.c.

Sectorial attributes - industrial

- Current supply related statistics such as existing stock for factory, business park and warehouse for both the private and public domains.
- Upcoming supply related statistics in terms of gross floor area.
- Economic metrics such as consumer spending, retail sales and trade numbers.
- Industry figures such as purchasing manager's index (PMI), non-oil export/import nubmers, inventory and stock of finished goods and oil price.

Sectorial attributes - hospitality

- Tourism related statistics such as changes in tourist arrival numbers, diversity of tourist arrival source and changes in average duration of tourist stay.
- Economic metrics such as growth of disposable income, changes in concumer sentiments, and relative fluctuation of domestic currency to US dollar.
- Supply related numbers such as market wide occupancy trend, room availability trend and expected add-on to room supply for the next 3 years.
- Relevant government blueprints and disruptive innovation within the industry.

Sectorial attributes - retail

- Supply related statistics such as country wide retail net absorption rate (occupancy), new retail space supply and expected add-on retail space for the upcoming 3 years.
- Tourism related statistics such as changes in tourist arrival numbers, diversity of tourist arrival source and changes in average duration of tourist stay.
- Economic metrics such as trend of median income, changes in consumer spending, changes in Consumer Price Index (CPI) and GDP growth rate.
- Deflationary risk or the preception of deflation and residential property buoyancy.

Sectorial attributes - office

- Changes in country wide office net adsorption (occupancy) and new office supply.
- Substitutes for CBC spaces in the fringe area.
- Hiring strength among the core demand sectors.
- Coporate profits outlook.
- Changes in umployment rate.
- Disruptive innovations within the industry.

Unique attributes - corporate governance

- Ownership structure + board and management remuneration.
- Specific internal control put in place to address potential agency conflict.
- Potential breeding grounds of governance misbehavior
  - Real asset appraisal,
  - Incentive structure of trust manager
  - Connected party transaction and rights issue.

Unique attributes - potential risk inherent within the REIT structure

- Vulnerable to local real asset market volatility.
- 90% cash distribution is a double edged-sword.
- Yield destructive asset acquisition and/or disposal.
- Legitimate but questionable connected party transactions.
- Loan maturity concentration.
- Dilutive institutional share issuance.

Figure 5: List of key insights uncovered during the literature review of technical content.

Chapter 3 – Influences on my research design

This chapter covers the sources of influences on my research design, how these influences have shaped my thinking, style of analysis and eventually the specific research objectives, as illustrated in the figure below.

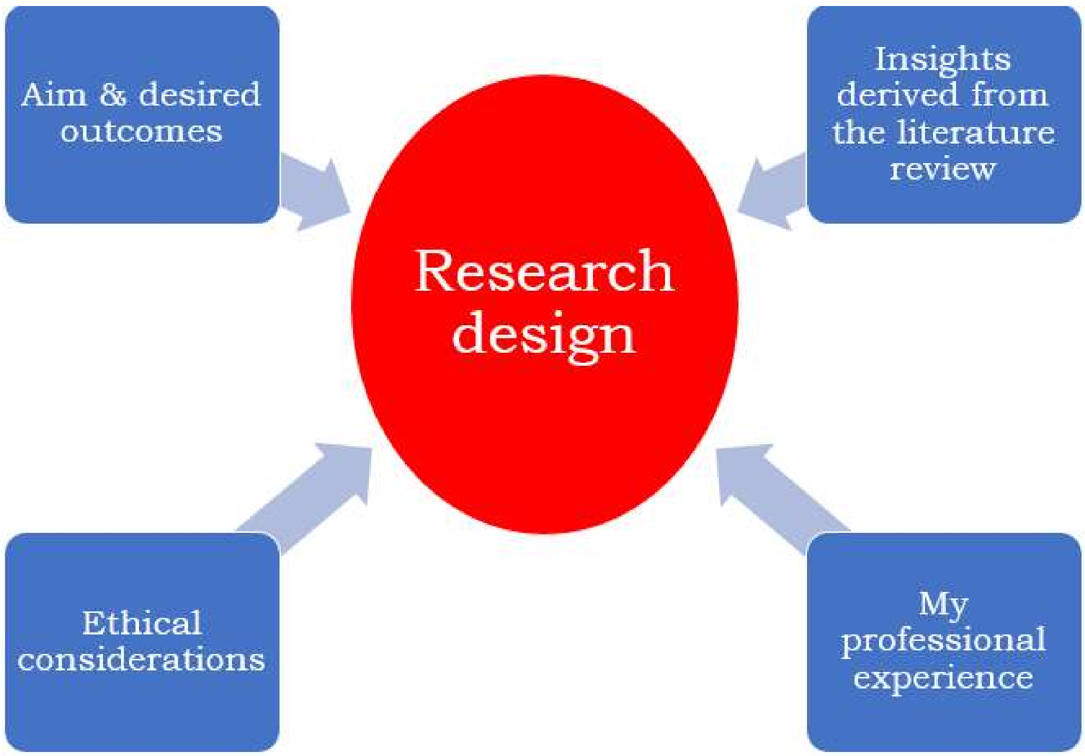

Figure 6: The four key influences on my research design.

3.1 From the aim and desired outcomes

The aim of my research is to equip the relevant stakeholders with a questioning toolkit to better understand the REIT business model dynamics. After that, end users of my study can then make an informed judgement call on the feasibility and profitability of their target company's business model and executional strategy.

These relevant stakeholders span across retail investors, analysts, fund managers, regulators, listed REITs' management, my organisation, Middlesex University and myself. Even though the desired outcome for each group of stakeholder varies, the desired outcome for retail investor dominates over the rest. The rationale being if the desired outcome for retail investor has been achieved, that should naturally lead to the fulfilment of the desired outcomes for the rest of the stakeholders as well, albeit after minor modifications to the questioning framework.

Having obtained a clear understanding of what I aspire to achieve, the appropriate boundary of my research design became clearer. Henceforth, every time I came across a dilemma of whether to include a specific question, to adopt a specific research method or to initiate primary research in a new direction, I will be bestowed with a simple solution. All I need to ask is: does the extra step generates positive value add to my aim and desired outcomes?

As observed, both the aim and desired outcomes function like a giant magnet. Any time I found myself running off track during my research, this magnet pulled me back into its magnetic field of influence. The process leading to my final aim and desired outcomes did not occur overnight. It emerged over time. Indeed, its origins can be traced back to the beginning of my doctoral research programme when the first part of researcher development of the practitioner was to carry out a critical review of my practice, what shapes and informs it and what matters to me as an individual and a member of the many collectives to which I belong. At that time, the aim and desired outcomes were at best a hologram version of what they are today. My research proposal was predicated on this important first step and overtime developed from a series of thoughts, concepts, and opinions into an active plan to contribute to what matters to me on all the above levels personally and professionally.

As I consciously adhered to the aim and desired outcomes of my research, the research design was simultaneously influenced by the magnetic field of yet another source of slightly different but related source of influence – the importance of research structure and process over final output content. Given that my research touches on the operational logic underlying the REIT business model, the core content of my questioning framework will be technical in nature. However, I must consciously and consistently remind myself that the structure of my questioning framework and the process flow that led to its final form would hold even greater importance.

This is because essentially, I am attempting to venture into unknown territories in this research. In short, I am attempting to break into a new paradigm and/or way of understanding how a business operates through asking the right questions, in a new manner and at the same time remain usable by retail investors. Hopefully, my research will pioneer a new suite of methods for like-minded researchers to leverage on across other industries in the near future.

When that happens, I will be one step closer to my vision of improving the level of investor education in Asia Pacific capital markets. Considering that, my research design has placed great emphasis on replicability by other researchers and has kept a clear record of what I intended to do (Chapter 4 – Research design), what I discovered from doing so (Chapter 5 Research analysis and result), what I did not do as well as their associated rationales.

Underlying this research therefore lies the following basic premises:

- With sufficient and appropriate investor education, retail investors can make better informed choices and become more rational when forming their investment mandate.
- I am the agent for the above desired change on the users of my questioning framework.
- When the number of users of my questioning framework accumulates with time, I hope to significantly reduce the degree of information asymmetry between retail investors and the suppliers of financial product.

Therefore, regardless of how I eventually execute the research design, and subsequent analysis, the following ground rules always stand firm:

- Structure and process over final content.
- As the agent for change in my industry, my opinion counts.
- Comprehensibility by retail investors always remains paramount.

3.2 From the insights derived from the literature review

Literature review makes up the bedrock of all research. For my research, the influence from the literature review on the research design began from the manner previous researchers made use of desktop research. Authoritative inquires such as EY (2016) and Gordon *et al.* (2014) commence their desktop research through obtaining an objective and appropriate way to narrow down the scope of data collection.

For business model related research, public equity pricing is commonly adopted for this purpose. On top of that, sensational and impactful stories of the best and worst performing companies often make up the rich sources to obtain business model explanatory attributes. Once the boundary has been set, researchers often cast their scoping net as wide as possible - albeit within the pre-determined boundaries (Mohamad & Zolkifli 2012).

For business model related research, there exists some common protocols used by most authoritative papers during the collection of primary data. First, there is consensual focus on seeking opinions from industry experts. Such interpretivist approach demonstrates the willingness of most business model related research to analyse explanatory attributes through the imperfect lens of human actors (China Chengxin 2016).

Second, given the nature of the interpretivist methodology, the need to avoid sampling biases from biological sources such as groupthink, interviewer fatigue and undesirable dominant influence becomes very important. The associated protocols include adopting Delphi approach during interview, optimising the interviewing environment to reduce mental fatigue, and putting sufficient time gap in between interview and analysis. Most of the suitable protocols uncovered during the literature review have eventually been adopted in my research design.

Third, the ingenuity obtained through cross-disciplinary application is also widely visible during the literature review. For my context, the most appropriate place to seek for cross-disciplinary knowledge transplant rests within the literature domain of business strategy. After reviewing several authoritative conceptual models within the realm of business strategy domain, my research design eventually adopted the BMC.

Fourth, the literature reviews also highlighted several feasible options to undertake result validation. To be more specific, how to execute sufficient and efficient triangulation? The relevant insights from this domain of knowledge eventually got adopted and modified to give rise to my three-stage result validation processes.

Finally, the style of Socratic questioning had held strong relevance for my research. First, my research aims to generate a questioning framework. At the innermost core of my desired outputs lies the soul of quality questioning. Second, Socratic questioning has been relatively adept at facilitating the analysis of concepts, complex issues as well as in understanding the thinking of individuals and their follow-through action (Grondin 2018). Given the interpretivist nature of my research, direct engagement with individuals would be prevalent and henceforth the optimal use of Socratic questioning.

To successfully deploy the style of Socratic questioning onto my research, I have turned to modern behavioral science for inference. According to Clark & Egan (2015) and Vogt (2013), to achieve optimal use of Socratic questioning during primary research, there are some basic premises:

- Knowing when to keep questions open-ended versus close-looped.
- Asking questions in the right sequence.
- Questioning in the right tone.
- Be cognizant of team dynamics.

- Being attentive to follow-up questions.
- Decide what to share and what not to share during each dialogue.
- Always be humble and never fall into the trap of overconfident.

For me, getting quality conversations with interviewees has been crucial. The way I engage in dialogues with interviewees will have a direct effect on the quality and validity of the data collected. Socratic questioning therefore directly influences the way I postulate the interviewing questions through:

- Probing my interviewees to clarify their thinking as well as revealing where their thinking has originated from.
- Facilitating my interviewees to invoke objective evidence for their arguments and challenging the associated underlying assumptions.
- And where appropriate, offer alternative viewpoints for considerations.

Aside from directly deploying the style of Socratic questioning during primary research, I have also instilled the core essence of Socratic questioning throughout my research. According to Aswegen *et al.* (2011), the core essence of Socratic questioning covers the following attributes:

- Optimal use of data collected.
- Create a strong bridge between new data collected and prior knowledge.
- Able to transform the outcomes to new findings in a thoughtful way.

Starting with desktop research, to primary research, right through to conceptual framework mapping and finally until results validation, I put in my best effort to sift through all data collected within pre-established boundary, cement a strong connection to prior knowledge uncovered during the literature review and transform these data into new knowledge in the form of the multiple versions of my questioning framework.

3.3 From the ethical considerations

I have paid significant attention to as well as adhered to a strict protocol when extracting, storing, and using the information obtained from interviewees.

First, corporates were assured that none of the company specific information revealed by them would be quoted. My study only used company specific information in case studies to better understand the working dynamics of a specific industry. The focus was never on any specific company.

Second, all interviewees retained their right to remain anonymous. One good example would be financial regulators. Given that it would have been obvious who were the regulators in Hong Kong and Singapore, I exercised great caution when publishing the information obtained from interviews.

I intentionally detached the information obtained during the interviews from their respondent groupings, jumbled up their sequence and presented them in a congregated style in this research. In this way, readers will not be able to backtrack and trace each comment made to the regulatory respondents or any other specific respondent groupings and individuals.

Third, prior to the publication of the final report, the respective portion that was attributable to the information obtained from a specific interviewee has been sent for his or her review. This ensured that my interpretation would be in line with what the interviewee was trying to express. As my research did not involve making any judgement call or policy recommendation, this act did not compromise the independence and objectivity of the study.

Even though I have obtained access to a wide spectrum of capital market professionals to participate in the interviews, that is only half the job done. The other half involved ensuring whatever revealed have been unbiased, reasonable, and justifiable.

To achieve that, I have put in place a stringent interviewing protocol as well as adopted a comprehensive triangulation approach during information extraction and verification. Finally, I also paid special attention on sensitive sub cultural elements (National Academy of Sciences 2009) that were unique for some jurisdictions or professions. These had been implemented among the different respondent groupings, examples as narrated in the following paragraphs.

Regulators has a professional duty (BIS 2011) to preserve their neutrality. Even though they have a wealth of experience working with listed companies' business model disclosure during the IPO prospectus drafting stage, it remains highly unlikely for them to reveal their list of favorites. With that in light, it would be highly inappropriate for me to get them to rank the best/worst 5 REIT IPO prospectuses ever drafted.

Fund managers owed fiduciary duties towards their clients. Hence, it would be inappropriate for me to seek their insights on the specific companies they are currently vested in. Even the most remote indication of a bias towards a listed company will ring an alarm bell. Because of that, I have been very careful when interviewing asset managers.

Corporate insiders as mentioned earlier are naturally sensitive and protective about the inner workings of their companies. Where possible, I have refrained from using the interviewees' companies as the subjects of case studies.

With Retail investors, I avoided asking how they view the business model of the companies they had already invested. This was to minimise emotional biases (Podsakoff *et al.* 2003) as well as making sure the interviewing process did not get diverted unnecessarily.

For a snapshot of the draft participant interview invitation email, please refer to appendix 1.

3.4 From my professional experience

Thus far, the aim and desired outcomes have served as a strong magnet to prevent me from going off track during the research – through keeping my thought process well within the relevant magnetic field of influence. Insights from the literature review subsequently inspired me to use the most suitable methodology and associated specific methods to execute the research well within the above pre-set boundary. The execution protocols adopted during ethical considerations supplied further reinforcement through serving as the policing agent to prevent me from stepping onto the common unethical landmines.

My professional experience was also put to reasonable use during research design. To begin with, both the depth and breadth of my business model related experience set up the executional boundary of my research design. For example, I could pinpoint the exact sources from which to obtain industry related, sub-sector related, academic related, think-tank related and even governmental policy related information. For each source of information, I possess the knowledge to decide on the depth in which to extract the relevant data.

Another important influence from my professional experience originated in the form of my personal network of academia and practitioners in the field of REIT. This personal network made up the pool from which I can select the respective expert interviewees during the primary research.

In addition, this personal network also comprised of a huge population of retail investors which I used to engage with during my previous stints as a pro-bono investor educator with the SGX. The many years of volunteering work has coincidentally brought me into proximity with the retail investors and with it ground zero understanding of how retail investors think and make investment decisions.

On top of that, the structure and logical processes required to assimilate information from the various sources to create a visual picture for users of my framework have been almost second nature for me. All these skillsets took me years to develop while I was working as an equity analyst covering the REIT industry.

As can be observed, during the process of preparing for the research design, my professional experience has exerted a huge influence on the way I executed the specific steps. On the ground however, the interaction had been more bi-directional. For example, during the expert interviews, I had encountered quite a few surprises in the way regulators interpreted business model and what they felt were important for the retail investors versus what retail investors aspired to know. There were similar disconnect between fund manager expectation versus that of equity analyst even though the gap between the latter entities had been relatively narrower. For me, these observations had been eye openers and at the same time further strengthen my belief that my questioning framework will have positive influence towards minimising information asymmetry among different stakeholders.

Finally, in the current information overflow era, access to sufficient and relevant information through the internet is no longer a critical issue, relative to researchers two to three decades ago. But whenever human civilisation solves a big problem, it usually opens another pandora box – relevant information often exists in its compound form where the elementary truth often gets entangled with myths and fake information. A very appropriate analogy would be having to mine for gold (the truth) in a proven huge deposit of low concentration gold ores. And this is where the crown jewel at the tip of my pyramid of personal experience comes into play - the ability to seek out appropriate validation at the right time for the required datapoint.

3.5 The confluence of these influences

Under the confluence of influences from the aim and desired outcomes, insights from the literature review, ethical considerations and my professional experience, specific research objectives eventually emerged naturally. These specific objectives cover:

- What I hope to achieve out of the literature review. These influences have resulted in me undertaking iterative rounds of the literature review, where the specific objectives changed gradually upon each new round.
- Extending the insights from the literature review to connect with the respective components of a REIT business model.
- Exploring systematic ways to enhance the readability of my questioning framework.
- Coming up with a holistic primary research design and establishing suitable protocols to objectively collect the required information.
- Amalgamating the outputs from the literature review and primary research.
- Optimising the validity of the final outputs.
- The omnipresence of CG in the literature review and its constancy throughout my professional experience strongly influenced the degree of emphasis I placed on CG related questions during the piloting phase.

To sum up, my research design is all about getting practice knowledge and academic knowledge to come together, to produce something immediately useful in the real world for my targeted stakeholders. The research output should therefore be clear, simple, and handy for usage.

3.6 Chapter summary

This chapter covers the four major sources of influences on my research design. These sources of influence originated from:

- The aim and desired outcomes.
- The insights derived from the literature review.
- Ethical considerations.
- My professional experience.

To ensure that I have remained focused on fulfilling the aim and desired outcomes for the respective stakeholders of my dissertation, iterative revisits to them are made throughout the research. In addition, equipping the retail investor with a concise questioning framework has always remained as the single dominant desired outcome throughout the research. Moreover, once this desired outcome on retail investors has been achieved, the desired outcomes on other stakeholders will automatically fall in place. Considering that, direct participation and feedback from retail investors have made up the most important part of my research design.

Another unique aspect of my research rests on the importance of research structure and process over final output content. For this questioning framework, the REIT industry made up the technical vessel for me to venture into the unchartered waters. Essentially, I am pioneering a suite of methods to generate business model questioning frameworks that hold great value-add for retail investors. Hopefully, future researchers can leverage on this suite of methods to research on other industries. In other words, I have attempted to play the role of a change agent in my industry.

The second source of influence on my research design originated from the literature review. First, a relatively efficient approach to narrow down the scope of data collection has been proposed by EY (2016) and Gordon, *et al.* (2014). This approach focused on using outlier listed REITs to seek out explanatory factors of business model. Outlier listed REITs were in turn obtained through objective assessment of equity market performance.

Second, the data collection protocols adopted by authoritative research papers such as China Chengxin (2016), EY (2016) and Gordon, *et al.* (2014) during primary research have been adopted by my research. The dominant focus within the literature review pertaining to extracting first-hand data through industry expert interview was also adopted by my research. Associated with this dominant focus lies a chain of specific methods to minimise the inherent biases. These specific approaches include the Delphi method, Socratic questioning, how to minimise mental fatigue during interview and how to prevent industry experts' comments from unduly dominating my professional opinion. As observed, one of the implicit assumptions of the research approach adopted has included the willingness to analyse current phenomenon through the imperfect lens of relevant stakeholders within the eco-system. That is highly reflective of the interpretivist methodology.

The third source of influence on my research design originated from the execution protocols adopted during ethical considerations. Having these stringent protocols in place safeguarded me from stepping onto the common unethical landmines. In addition, mere knowledge of their existence had put to rest the many potential concerns that interviewees might have during primary research. All these had resulted in my interviewees to be more forthcoming and truthful during dialogue sessions – leading to the collection of quality and more comprehensive data during primary research.

The fourth source of influence on my research design originated from my professional experience. First, both the depth and breadth of my business model related experience have been put to the test. To begin with, my professional experience directly influenced the research design. At the same time, the planning and execution stages of the research generated insights that patch up my knowledge blind spots as well. The influencing mechanism has therefore been bidirectional.

In addition, my personal network of academia and practitioners set up the boundaries in which I conducted the primary research. Finally, due to my previous work in the sphere of investor education and the associated proximity to retail investors, I am quite adept at drafting out questions for retail investors that can be readily comprehended.

The confluence of these four sources of influence leads to the formation of the final form of my specific research objectives and eventually the research design. Relative to ending up with a complicated and hypothetical questioning framework, these influences have enabled me to be absolutely focused throughout the research to create simple but concrete outputs with tangible benefits for my targeted stakeholders.

Chapter 4 – Research design

This Chapter presents the research design I adopted after taking into consideration the influences outlined in the previous chapter. The methodology approach I adopted was interpretivist and began with desktop research, followed by primary research, continued with conceptual framework mapping and finally validation, as illustrated pictorially below:

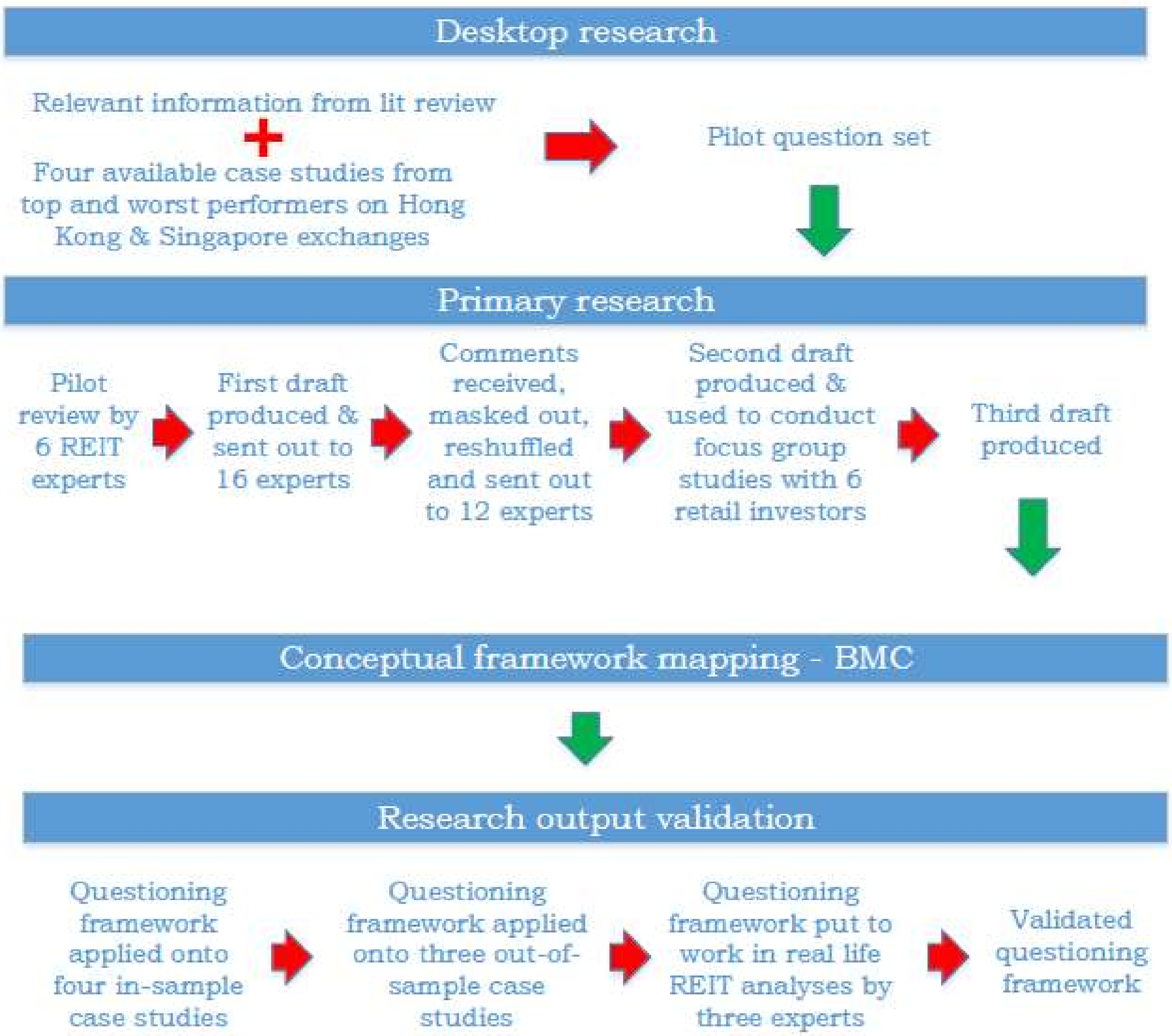

Figure 7 Flow chart illustrating the different stages during project design.

4.1 Stage 1 – Desktop research

The desktop research was limited to public REITs. Relative to private REITs, financial information of listed REITs had been more readily available. In addition, market price of REITs can serve as an objective measurement of business model success. The same cannot be achieved with private REITs.

Geographical scope - both Hong Kong and Singapore were selected for their financial hub status and constraints imposed upon by interviewee availability, executional bandwidth, cost of execution and language barrier.

Time scope - my research covered REITs listed on Hong Kong Exchange (HKEX) and Singapore Exchange (SGX) during the eight-year period from March 2009 until March 2017. This period was selected to avoid the extreme pricing volatility during the midst of the global financial crisis while at the same time long enough to generate sufficient data point for analysis. These REITs have been archived on appendices 3 and 4.

Through examining the share price performance, both the best performing and worst performing REITs on HKEX and SGX respectively were identified. Following that, using existing case studies of these four REITs and together with relevant information from the literature review, a list of key pilot factors was generated.

Given the importance of CG as informed by both the literature review and my professional experience, I have dedicated a section of questions to specifically cover CG during the piloting phase. This approach was designed to be in line with the style adopted by the authoritative literature such as Stevenson (2005) and Osmadi (2010). Finally, from the list of key pilot factors, a pilot list of questions was drafted.

4.2 Stage 2 – Primary Research

4.2.1 Appropriateness of interpretivism as the research methodology

Our society is made up of more than 7 billion individual minds. No two lives were ever lived the same way and therefore no two stories would be told the same way. All these stories are subjective interpretations of the social phenomenon that coexisted with one another (Dajde & Gopaldas 2018).

Interpretation of social phenomenon has therefore been a never-ending process where a vivid description of what just happened, why it happened and how did it happen often led us to more unanswered questions. At a moment in time, there might be more than one version of "truth", much like the quantum state of Schrodinger's cat (Dean 2018). As an interpretivist researcher, I need to be comfortable with several different ways of looking at the same "truth".

To avoid becoming the frog in a well, I enlarged the sampling size to avoid being unduly influenced by an overly authoritative practitioner. The crux of this however rested on suitable enlargement rather than enlarging the sampling size for the sake of doing so (Lawrence 2015). At the bare minimum, the quality of practitioners should not be diluted after the sampling size has been increased.

Finally, the interpretivist research must not forget the core mission of the research – to **interpret and understand** instead of isolate and generalise. In other words, a successful interpretivist research should focus on uncovering the viewpoints that emerge from the research instead of arriving at some definite answers (Willis, 2013).

The research methodology selected must suit my research topic and eventually generate the desired outputs. Considering that, I drafted the following section to re-emphasise what I aspire to achieve out from this research.

My research attempted to establish a list of crucial questions that should be asked when considering the investment merits of a listed company within the REIT industry. Inevitably, industry insiders would make up one of the key channels through which relevant knowledge would be extracted for analysis.

To achieve that, I am mentally prepared to examine the business model of the REIT industry through the tinted lens of these industry insiders (Gammelgaard 2017). The output obtained through this channel made up the subjective interpretations of the inner workings of the REIT industry produced under the circumstantial constraints impacting each practitioner interviewee. The circumstantial constraints impacting each practitioner interviewee would be unique, subject to each individual different area of work, assumption, belief, culture, and any other memorable life experience (Hamood 2016).

Most importantly, life experience and working environment seldom remain static attributes but instead would be subject to continuous alterations. An interpretation made today would be more relevant for today's context and significant adaptation had to be made when the context has evolved (Lawrence 2015). In other words, all the interpretations and their associated conclusions made in my research would be relative and not absolute. Considering all the above, the interpretivist approach should serve my research well in capturing all the relevant social phenomenon.

To optimise the effectiveness of the chosen methodology, I constructed a concise and clear research objective. This had kept me locked onto the goal and focused on executing only the relevant activities to meet the goal. I could then decide where, when and with whom the research ought to be carried out with.

As an interpretivist research, both the knowledge from the expert community and myself would be important and relevant (Voyer & Trondman 2015). The former would arrive in the form of interview while the latter would come in the form of reflection.

On top of that, relationship building with the expert community had been an essential activity (Venkat & Carter 2018). Afterall, these industry practitioners had no legal nor professional obligations to assist me in my doctoral research. To motivate them to participate actively, I leveraged on my communication skillset to first marinate and eventually established solid working relationships.

Even though this interpretivist research did not attempt to generate a theory from the knowledge assimilated on the ground, some of the process flow of grounded theory remained applicable. First, the data collection and analysis stages would not be in a cascading format. Instead, the entire flow had been non-linear and revolved around a continuous interaction between community data collection, self-reflection, and analysis. Such recursive manner of research execution optimised the production of a valid end product (Dean 2018).

Second, as new patterns, observations and outliers emerged, richer sets of community data and multiple sets of interviews needed to be collected and conducted respectively (Pulla 2016). These new data points were compared against the concepts and insights established from previous executions. These additional iterations enhanced the robustness of the research outcome. Most importantly, the data collected from the expert community had been kept word-for-word where possible to allow the data to tell a story from each interviewee's own perspective (Pulla 2014).

Third, as per researchers that adopted grounded theory, any preconceived theories, or established ways of looking at the REIT business model was not brought into my research prematurely. This predominantly explained why the literature review for this research did not conclude during the early stage but instead continued throughout the research where appropriate (Cary 2012). In this manner, new ways of looking at the business models would have ample opportunities to be compared with established frameworks in the literature universe. Ultimately, I hope to distill out newer and more relevant ways of examining the REIT business model from the data collected.

Despite its wide appeal among qualitative researchers, the interpretivist methodology still possesses its fair share of challenges and critics. To begin with, an interpretivist research should not degrade into a mere description of what the researcher had observed. Instead, the research should demonstrate a holistic understanding of how the relevant stakeholders had engaged each other and resulted in the contemporary observed social phenomenon (Carey 2012).

On top of that, the researcher should take note to ensure that the culture being examined has been analysed on its own terms instead of being judged by the researcher's belief or value system (Yanow & Schwartz-Shea 2014). As the researcher played the dual roles of being both the researcher and the research target under the interpretivist paradigm, achieving the above can be tough. Hamood (2016) suggested splitting up the dual research roles into separate time domains so that the researcher can fully reflect upon his experience and knowledge when he played the research target role while mentally refrained from doing so when he is the objective researcher. As long as the interpretivist researcher can clearly explain the decisions made at each stage and step, most potential biases and limitations would have been properly accounted for and dealt with (Voyer & Trodman, 2015).

As mentioned previously, the research output from interpretivist study tends to be highly dependent on context – be it culture, location or population. That has rendered generalisation tough which implies that the output might lose their referral appeal for usage in other contexts (Voyer & Trondman 2015). On this aspect, it has not been all bad news though, as Lawrence (2015) has demonstrated that with meta-analysis, the possibility of generalisation for out-of-context usage is feasible even for interpretivist inquires. Bearing in mind the above-mentioned important traits of the interpretivist methodology, I proceeded with my research execution, starting with the pilot list of question.

4.2.2 Appropriateness of choices of research activities

The pilot list of questions derived from desktop research served as the starting point of my primary research. During primary research, I seek to obtain ground comments from practitioners working in the REIT industry. The selection of interviewees was constrained by the size of CFA Institute membership pools and the depth of my personal network.

Primary research was split into three stages as follow:

- Initial review by six industry practitioners
- One-on-one interview with 16 industry practitioners
- Two focus group study sessions with six retail investors.

During the first stage, the pilot list of questions from desktop research was reviewed for ease of comprehension. The output resulted from this stage was labelled as the first draft questioning framework. The desired outcome at this stage was expected to be an unambiguous questioning framework that was fit and efficient for more intensive review.

During the second stage, the first draft questioning framework was reviewed for content sufficiency, quality, and relevance as well as for ease of comprehension. The Delphi method was adopted during this stage where two or more rounds of interviews was carried out with the same group of industry practitioners.

As a data extraction technique, the Delphi method has often been adopted during qualitative research (Piccinini *et al.* 2014). The repetitive process involving multiple rounds of interviewing with a common pool of experts usually concludes during the second or third round, subject to the complexity of the research theme (Faleiros *et al.* 2016). According to Faleiros *et al.* (2016) and Owen (2006), the Delphi method has been particularly adept at deriving consensus among the insights from expert interviewees.

Another advantage commonly associated with the Delphi method lies with its executional effectiveness among geographically dispersed expert interviewees. And since the expert interviewees were not required to interact directly with one another, undue influences from strong personalities are minimised (Garavalia & Gredler 2004).

Moreover, the resulting anonymity of interviewee opinion has often been cited as the key reason for the Delphi method to be one of the more popular insight extraction methods (Chou *et al.* 2014) adopted for ethically sensitive research. Finally, during instances where the final consensus does not arrive until additional research methods are deployed, the Delphi method has remained useful for enhancing consensus building.

Despite having many advantages, the Delphi method also suffers from its fair share of critics. First, drafting the appropriate interviewing questions can be difficult. Misinterpretation of questions by the interviewees and reluctance by them to reveal their honest opinions when being asked upon sensitive questions are just two common examples of how an inappropriate set of initial questions could significantly dilute the quality of insights obtained.

To optimise the relevance and validity of the information extracted, the design of the questions therefore ought to take into full consideration the unique character, cultural and professional experience of each interviewee. One common way to alleviate the negative impact from this aspect rests with establishing a stable and trusting relationship with each interviewee (Piccinini *et,al.* 2014).

Second, a lot of effort needs to be spent on keeping the interviewees focused on the core objective of the research instead of getting distracted into unnecessary discussions (Chou *et al.* 2014). A common example would be describing the ideal stage of things versus coming up with executable solutions to improve the current situation. A research that is focused on the former attempts to uncover how the situation would look like during optimisation whereas the latter is focused on seeking out practical quick fixes to enhance the current situation. These are two draconianly different research focuses which would require distinctly different type and style of interviewing questions. The researcher therefore needs to be steadfast with what the research aspired to accomplish and communicate it clearly to all interviewees at the very beginning.

Finally, both Piccinini *et al.* (2014) and Chou *et al.* (2014) point out the risk that the Delphi method might generate "collective ignorance rather than wisdom", especially after iterative rounds of interviews where the eventual consensus might have been a result of interview fatigue rather than genuine consensual insights. Piccinini *et al.* (2014) goes on to suggest that the Delphi method can serve well as one type of information extraction tools, but it should not be an end all method. The researcher should therefore refrain from forcing the expert interviewees to arrive at a consensus. Instead, the researcher should take care to minimise the occurrence of interviewing fatigue, adopts a patient stance and encourages the expert interviewees to come to terms with their innermost thoughts (Chou *et al.* 2014).

In summary, as a method to extract insightful information from expert interviewees, due considerations must be given to improve their reliability. For instance, increase the number of interviewees while not sacrificing the quality of information extracted, leveraging on the implicit assumption that several people would have been less likely to generate the same wrong insights together than a single individual (Owen 2006). Following that, consensual insights from the Delphi method should be subject to the scrutiny of reasoned arguments (McGeary 2009) to reduce the chance that validity has been sacrificed from the pressure to seek convergence of insights. Most importantly, when the participants possess both professional knowledge and personal passion in the topic area, the validity of content and reliability of insights from the Delphi process should improve (Baldwin & Trinkle 2011). In other words, securing insights from the appropriate expert interviewees remains paramount. Taking full consideration of the above, the specific steps for the expert interviews were designed as below.

4.2.3 Primary research execution steps

Due to the nature of my professional role, I have the luxury of having access to a diverse pool of practitioners. This diverse pool of practitioners is made up of my professional network, CFA Institute membership base as well as ACCA membership base.

Nonetheless, I have been very careful to filter out individuals who have come to me with vested interests. I have also remained vigilant regarding any individual who may be only interested in taking the opportunity to vent their investment woes. What I need for the research during the interviewing stage are practitioners who are objective and willing to divulge their insights with regards to the REIT business model. And if these practitioners also share a common goal with me – in the form of contributing something back for the good of the society and upholding market integrity, that will be bonus.

In view of that, a natural and actionable filter for me would be to select among those practitioners who have been actively volunteering for our investor education effort[62] during the past seven years. The selected individuals should hold relevant job positions within the REIT ecosystem and have displayed the willingness to care and share for societal good.

---

[62] *CFA Institute has always been an active coordinator, facilitator as well as participant in the sphere of investor education. During our investor education endeavor, we usually enroll the help of our local volunteers who have strong connections with their local regulatory bodies to optimise our outreach.*

Eventually, 16 practitioners were selected, with equal representations among seven professional groupings. The number of practitioners has been set at 16 to achieve the right balance (Driscoll 2011) between breadth of representation and depth of interview. Too small a sample size will dilute the breadth of representation while too large a sample size will erode the quality of each interview conducted (Edwards & Holland 2013).

Finally, authoritative papers such as Capozza & Seguin (2000), Bauer *et al.* (2009), Atchison & Yeung (2014), Gaynor & Portal (2015), Virani & Kaur (2015) and EY (2016) have explicitly listed out the different type of professional roles considered to make up the core stakeholders of the REIT investment universe. Together with what I have experienced during my professional stint within the REIT industry, I eventually decided on the following list of professional groupings:

- Corporate insiders x 4
- Financial regulator x 2
- Equity analyst x 2
- Investor relation x 2
- Fund manager x 2
- Private equity manager x 2
- IPO prospectus preparer x 2

The specific implementation steps as below:

An email with the first draft questioning framework attached was sent to the 16 interviewees for them to review at least 14 days prior to the face-to-face interview.

This step was followed up with written email replies (optional) from some of them. Any information that could be obtained through email communication would reduce the length of the face-to-face interview, therefore enhancing the quality (Rajendran 2001) of the interviewing session. This arrangement minimises mental fatigue during physical interview (Loureiro & Lotade 2005).

During the actual face-to-face interview, on top of requiring the interviewees to directly review my first draft questioning framework, the following open-ended questions were asked:

1. What are the parts that you particularly like about my questioning framework and why?
2. What are the parts that you particularly find insufficient and/or inappropriate about my questioning framework and why?

3. What additional recommendations do you have for me to elevate my questioning framework to an even higher level?

Any residual doubts from earlier email communication was also clarified during the interviews. Iterative cross checking was implemented to ensure all relevant ethical considerations have been sufficiently dealt with. Finally, all questions and dialogues were carefully finetuned to instill the spirit of Socratic questioning, beginning with the above three generic questions.

The results in its original form were subsequently masked-out[63], congregated and shared among the same group of experts as per first round through email. All interviewees were given the opportunity to review and amend their opinions based on what have been said by everyone else.

And depending on their subsequent email responses, a second-round face-to-face interview was conducted with some of them. These interviewees were given two weeks to digest the information. Following that, a second round of interview was undertaken. Insights obtained from the two rounds of interview were used to modify the first draft questioning framework. The output resulted from this stage was labelled as the second draft questioning framework.

After the end of these multiple rounds of interviews with the industry experts, two focus study sessions were carried out with six retail investors using the second draft questioning framework to further enhance the readability of my questioning framework. The output resulted from this stage was labelled as the third draft questioning framework

Pertaining to readability, I have come to realize that it is a qualitative attribute that is subjective and varies with the uniqueness of different individuals (Anderson *et al.* 2012). Nevertheless, since I have adopted the interpretivist methodology, I am fully prepared to examine the issue of readability through the lens of different stakeholders.

The focus study sessions have been designed to specifically enhance the readability of my questioning framework. The 16 practitioners had also contributed significantly to this aspect during their face-to-face interviews. If I were to omit the focus study sessions with the retail investors, the readability enhancement process would have been incomplete. This is because the target audience for my research includes any individual who is keen to understand how REIT business model functions.

---

[63] *The identity of each interviewee will be masked out so that none of them is aware of who is contributing the specific comments.*

Considering that, my target audience is bound to include retail investors who are completely new to REIT, young equity analysts who are starting out on their first job as well as fund managers who might be looking at the REIT industry for the very first time in their career. Regardless of their retail or professional status, these individuals have yet to obtain a foundational understanding of the REIT business model. I refer to this audience as unseasoned readers.

Unlike the 16 practitioners, the unseasoned readers might not have a collective understanding of the common industry assumptions (Moustafa 2015) of the REIT business model. This might result in the unseasoned readers to misinterpret my questioning framework. And since I cannot possibly educate every unseasoned reader to understand the common industry assumptions of the REIT business model, I would have to refine my questioning framework until it can be accurately interpreted by the unseasoned readers.

During the three hours focus group study sessions with the retail investors, I made considerable effort to ensure all of them were talking about the same thing. This was achieved through observing their body language's degree of coherence with what had just been said as well as occasionally requesting them to explain to me in their own words what they had just heard. In addition, to check my own understanding of what they had said to me, I asked them whether they can provide examples.

Through subjecting my questioning framework to be reviewed by the retail investors in the focus group study sessions, I hoped to uncover the linguistic obstacles within my framework that might hinder comprehensibility among the unseasoned readers. When that is achieved, the readability of my questioning framework among such readership will be greatly enhanced.

The information obtained during each iterative round of face-to-face interview and focus group study were analysed through the following steps:

<u>Working on the obtained information - categorising the raw information</u>: The information obtained was organised into various levels of abstraction – starting with a high level "one-glance see all" format. Analysis can be enhanced when data have been pre-arranged in a setting that allows for full display of all content in one location (Huberman & Miles 1994).

This "one-glance see all" format also served as an effective remainder to keep me on track with what I was trying to achieve with the interviews and focus group studies. In other words, it prevented me from going off-track and remained focused on answering the research question.

To begin with, I undertake first level categorisation to identify and categorise the data into those that address the essential aspects (comprehensiveness & comprehensibility) versus those that were important but not yet essential.

Following that, I look out for new and/or unconventional ideas and themes that had emerged from the data set. These "surprises" would be examined in later stages to determine how they would relate to my research question as well as for future research consideration where appropriate. After that, the second level categorisation began with the segmentation of comments that specifically addressed the appropriateness of the nine business model compartments.

<u>Working on the obtained information - finding and organising ideas and concepts</u>: Marshall & Ross (1990) has put forward that the identification of salient themes, recurring ideas and patterns of belief that link people as well as settings together is the most intellectually challenging stage during analysis. This stage involved the intensive search for words or ideas that had appeared frequently within the dataset. The specific steps included the following:

1. Picking out overarching themes and their antagonistic suggestions. In other words, special attention was paid to recurring keywords and their associated themes, in particularly similar comments that originated from different interviewees.
2. Reading between the lines, analysing behind the words and paying special attention to unique sub cultural traits that might have an impact on interpretation.
3. Keeping a look out for unexpected comments as these might be potential fertile grounds for unturned stones.
4. Paying special attention to examples, stories and case studies narrated.
5. Recategorising the comments into more granular classifications where appropriate. Building overarching themes in the process where feasible and necessary.

<u>Working on the obtained information - ensuring reliability and validity</u>: Even though validation would occupy a separate research stage by itself in my enquiry, it also served as an ongoing principle (Yeasmin & Rahman 2012) that permeated throughout the entire research process. Effort was spent to ensure the consistency of the data set and where outlier comments appear,

possible explanations for how and why they have occurred were sought out for.

The triangulation technique where appropriate was applied both at the strategic and tactical levels (Saisana & Hombres 2008). Examples would be comparing the findings with the literature review, taking a cue from informal channel such as observation and the project journal.

And for dilemmas that remained relatively confounding, in-depth dialogues with corporate insiders were carried out where necessary. Through such intensive triangulation, elite bias (Berry 2002) would be minimised.

The third draft of the questioning framework was subsequently mapped onto the BMC. This step ensured the minimisation of blind spot (Osterwalder 2004) and provided an alternative opportunity to examine my questioning framework from a new frame of reference.

4.3 Stage 3 – Conceptual framework mapping

The BMC created by Osterwalder & Pigneur (2010) was adopted as the conceptual framework for my research. It was selected due to the following merits:

- Able to provide a helicopter view (Coes 2014) and relative to the other established business model analytical frameworks, the BMC can better amalgamate both the strategic and executional aspects of an industry business model.

- Provide visual representation – the BMC lays out the different functions of a company into nine distinct components, and at the same time provides narration on how to link up these nine components dynamically. This allows for quick visual representation while not sacrificing (Stefan & Richard 2014) the detailed illustration of the interdependent relationships among the different components.

- A natural derivation of many conventional business strategy analytical frameworks - the BMC intrinsically amalgamated (Universalia 2013) the core attributes from Ansoff's matrix, Boston Consulting matrix, McKinsey 7-S model, SWOT analysis and part of Michael Porter's five forces framework while at the same time avoiding the extremely detailed analysis required by balanced scorecard.

To summarise, the BMC has originated as a positive spin off from decades of robust research in the realm of business strategy. Furthermore, inferring from its widespread usage throughout the business consulting landscape and academia, the BMC seems to be relatively adapted to enhancing the readability of business models when the circumstantial variables are appropriate.

After mapping my questioning framework onto the BMC, the final draft of my questioning framework was produced. In this format, it was already very close to the final product. Prior to completion however, my questioning framework still needed to undergo a stringent validation process to further enhance its robustness.

4.4 Research output validation

This final step was broken down into three stages.

Validation with in-sample case studies of listed REIT: the questioning framework was used to cross check with the case studies involving the four REITs selected during the desktop research stage. The objective was to examine whether my questioning framework have been robust enough to point out all the red flags when end users use it to analyse the respective REITs in those in-sample case studies. The questioning framework was expected to bring out all the key points highlighted during the case studies.

Validation with out-of-sample case studies of listed REITs: as per the validation with the in-sample case studies, the same process was executed for three out-of-sample case studies of listed REITs on both HKEX and SGX. The three case studies were selected among the list of commonly cited REITs during expert interviews. Key factors that were not considered within the framework would be revealed during this stage. However, such occurrence should be minimal.

Final validation with expert interviewees: finally, the questioning framework was sent to expert interviewees for final validation. Three interviewees agreed to participate in this relatively time-consuming stage where each of them would be obligated to:

1. Apply my questioning framework to analyse at least two real-life public REIT business model prior to making their final investment decision.
2. Feedback to me their candid thoughts on the following aspects:
    a. Did they find the questioning framework easy to use?

   b. During the usage of my questioning framework, did they feel a change in their flow of thoughts – i.e. having been inspired by the structural flow of how the questions have been prompted? Please narrate in detail and with tangible examples.
   c. What else can be improved upon pertaining to content comprehensiveness and ease of understanding?
3. Participate in multiple rounds of email exchange followed by a 3-hour face-to-face interview with all of them sitting comfortably in one physical setting.

Their responses were used to modify my final questioning framework. From that, a fully validated questioning framework was produced.

4.5 Chapter summary

I adopted an interpretivist approach for this research together with the associated methods of data gathering and checking. I began with desktop research, followed by primary research, continued with conceptual framework mapping, and finally culminated with validation.

Stage 1 – Desktop research: the scope of research was limited to Hong Kong and Singapore public REITs. Analysis spanned across an eight-year period from March 2009 until March 2017. Taking the best and worst performing companies from the two bourses, four available case studies were selected. Together with relevant information uncovered during the literature review, a pilot questioning framework was generated.

Stage 2 – Primary research: the pilot questioning framework was reviewed by six industry practitioners to enhance the written prose. The suggestions extracted was used to fine tune the pilot questioning framework to generate the first draft questioning framework. Subsequently, the first draft questioning framework was sent to 16 industry practitioners. After multiple rounds of email exchanges, face-to-face interviews were conducted individually with all participants. Comments obtained were aggregated, originator's identity masked out and redistributed to these industry practitioners. The participants were then given a second opportunity to amend their original comments. The subsequent outputs were adopted to amend the first draft questioning framework to generate the second draft questioning framework. Following that, the second draft questioning framework was used to conduct two focus study sessions with retail investors in Hong Kong and Singapore. The objective at this stage was to enhance the comprehensibility of my framework from the perspective of the common public. The suggestions extracted were subsequently analysed and assimilated to produce the third draft questioning framework.

Stage 3 – Conceptual framework mapping: the BMC was adopted as the conceptual framework for my research. The mapping process generated a visual representation of the REIT business model. The output from this stage was known as the final questioning framework.

Stage 4 – Validation: the final questioning framework was subject to validation with four in-sample case studies as well as three out-of-sample case studies. Finally, three expert practitioners were invited to use my questioning framework to undertake real-life fundamental analysis on their target REITs. The output from this stage was labelled as the validated questioning framework.

Chapter 5 – Research analysis and results

5.1 Analysis and result of stage 1 – Desktop research

5.1.1 Result from equity market price analysis

Through visual inspection of time series price chart[64] up until 31st March 2017, the top outperformers in Hong Kong and Singapore were Link REIT and Fortune REIT respectively. While the bottom underperformers[65] in Hong Kong and Singapore were HK2 & SGP2 respectively. Following that, the case studies of these four REITs were examined.

5.1.2 Result from case studies analysis

Together with the associated public announcement, IPO prospectus and company factsheet, the following insights were derived from the case studies.

Case 1 – Hong Kong: HK2 from May 2011 until July 2017

Background Information: HK2 operates a relatively diversified REIT business model comprising of shopping malls (retail), tower offices (office), apartments (residential) and hotels (hospitality) in China.

Case Development: in November 2011, HK2 announced a connected party transaction involving the acquisition of a property from an associate company of a significant shareholder. The total sum paid up amounted to RMB 0.98 billion. The independently appraised value was RMB 1.113 billion.

In Mary 2012, HK2 made a proposal to unitholders at an EGM to seek their approval for extended waiver of annual caps pertaining to relevant connected party transactions. These connected party transactions specifically refer to those between HK2 and parties related to the same significant shareholder. The key intention was to extend the scope of the waivers originally granted by SFC (Securities and Futures Commission) to cover other connected party transactions beyond the originally targeted property.

In November 2014, HK2 announced a connected party transaction involving the acquisition of the target company that owned a specific property company – an integrated property development located in the Chongqing province in

[64] *The price series price charts have been archived on appendix 5 and 6 for the listed REITS on HKEX and SGX respectively.*

[65] *Information about the bottom underperformers explored in this search is in the public domain. However, guided by ethics of research integrity, I have anonymised their specific identities.*

mainland China. The target company was related to the same significant shareholder via its 50 percent deemed interest in the target company.

The total sum paid up amounted to RMB 3.91 billion. The independently appraised value was RMB 4.104 billion. HK2 also seek unitholders' approval for the REIT manager to receive a fee for the above-mentioned acquisition, to be paid for entirely in the form of new units issued.

In April 2016, HK2 once again seek unitholders' approval to extend the waivers in respect of certain continuing connected party transactions up till 31st December 2019.

In January 2017, HK2 announced a connected party transaction involving the acquisition of a hotel through buying up a holding company that owned the hotel. The target company was a subsidiary of the same significant shareholder. The total consideration put forward was RMB 250 million, subject to an upper cap of RMB 300 million. The independently appraised value was RMB 442 million.

In the similar announcement, HK2 also put forward the proposal to acquire an interest in another hotel through purchasing a 69% shareholding. The target company was again a subsidiary of the same significant shareholder. The total consideration put forward was RMB 642 million. The independently appraised value was RMB 720 million.

In April 2017, HK2 seek unitholders' approval to extend the waivers in respect of certain continuing connected party transactions up till 31st December 2020.

The above suite of connected party related acquisitions could give investors an impression that HK2 has been functioning as a conduit for the sponsor to exit their assets for the benefit of the latter. This perception might provide some explanations for the underperformance of HK2's share price relative to Hang Seng index.

However, all the connected party acquisitions that had taken place thus far have occurred at a discounted price from their independently appraised values. In addition, even after taking into consideration the issuance of new units to fund the above-mentioned acquisitions, DPU have remained stable and on an uptrend from FY2012 to FY2016. This implied that on a net off basis, all these acquisitions had thus far been yield-accretive.

The more likely reasons for HK2's share price underperformance therefore might lie with the challenging macro-economic environment in mainland

China as well as the shift of global consumption from bricks and mortar retail towards online shopping.

Indeed, during a media interview with South China Morning Post on 7th February 2017, the CEO of HK2 had acknowledged this shift of retail shopping habit towards online consumption. However, the CEO went on to explain that he remained confident in the traditional business, citing those human beings are social beings, have been so for thousands of years. Therefore, the need to go out and interact with one another will remain relevant.

Interestingly, the CEO also highlighted during the media interview that one strength of their retail mall lies with not having a dominant tenant type. He went on to explain that the resulting diversified tenant mix attracts shoppers of varying ages and income. This has played a role in ensuring HK2 retail malls continue to generate stable income throughout the years.

The CEO also cited that appropriate asset enhancement initiatives (renovation) is the key to success. The CEO even went on to provide details on how they did it with another iconic property. These included in-depth discussion and brainstorming session with their tenants. Some asset enhancement initiatives may take a year to plan and execute while others might just involve changing one LED display position. Asset enhancements, when deployed correctly can have draconian impact on the overall shopping environment.

Insights: the series of connected party related acquisitions got the market to ponder whether HK2 REIT had been set up as a conduit for their sponsor to exit their inferior assets. This public portray of HK2 REIT however might not be justifiable upon deeper scrutiny. The rationales as follow.

First, all the connected party related acquisitions were carried out on proper legal basis with independent valuations undertaken by third parties. Second, the distribution per unit (DPU) had so far benefited from these connected party acquisitions. If these positive indicators persist in the long run, the negative perception (if any) of these connected party related acquisitions should gradually erode off.

Third, the more challenging and compelling factors that can better explain HK2's relative underperformance most probably lie with mainland China's tough macro-economic environment and the structural shift in consumer shopping habits. From the two media interviews with HK2 REIT, I have obtained new insights which inspired me to come up with new questions for my framework. These new insights as follow:

1. Most retail asset operators are already well-aware of the structural shift of consumer shopping habits from bricks and mortar to online platform. How they respond to this shift and other disruptive innovation within the industry will differentiate them from the rest of the competition.

2.Having anchor tenants in place has often been cited as one of the key beneficial attributes for retail asset operators. That however might be a double-edged sword as can be inferred from the preference of HK2's CEO on diversified tenant mix over dominant tenant mix.

3.It further confirmed the strategic influence of asset enhancement initiative as a crucial yield improvement toolkit for retail REITs. The ability to execute appropriate asset enhancement initiatives on time and in-line with tenant and shopper expectation has been crucial.

Case 2 – Singapore: Fortune REIT from March 2010 until July 2017

<u>Background Information</u>: Fortune REIT was listed on SGX in August 2003. During the time of this case study, Fortune REIT owned a portfolio of 17 retail malls in Hong Kong (Pica 2011). In April 2010, Fortune REIT was dual listed on HKEX. The sponsor of Fortune REIT was Cheung Kong Holding (CKH). Fortune REIT's manager is ARA Asset Management (ARA).

Cheung Kong Holding was listed on HKEX. The company was the second largest property developer by market capitalization on HKEX. Cheung Kong Holding controlling shareholder is their chairman – Li Ka-shing (CK Property 2016). Cheung Kong Holding owed indirect substantial share holdings of ARA Asset Management through its subsidiaries. In other words, Cheung Kong Holding had substantial voting rights in both Fortune REIT and ARA Asset Management (CK Property 2016).

ARA Asset Management was listed on SGX and was concurrently the REIT manager of 10 other REITs spanning across Hong Kong, Korea, Malaysia and Singapore (ARA 2015).

<u>Case Development</u>: in 2009, Fortune REIT acquired Metro Town, Caribbean Bazaar and Hampton Loft in Hong Kong. All the properties were separately appraised by two independent valuators – namely Knight Frank Petty Limited as well as Savills Valuation and Professional Services Limited. Their respective appraised amounts, as at 30th June 2009 were HK$2.073 billion

and HK$2.07 billion. Both appraised amounts are marginally higher than the transacted sale price of HK$2.039 billion.

Fortune REIT cited the following benefits[66] for the above property acquisitions: first, it enlarged Fortune REIT exposure to Hong Kong suburban retail. Second, the deal involved quality assets in strategic locations with high occupancy. Third, the resulting portfolio diversification and enhanced economies of scale were expected to reduce risk and led to cost savings. Finally, with the additional pro-rata rights issued, share transaction liquidity was expected to improve as well.

Post that, as at 12th October 2009, Fortune REIT released an announcement citing that the total number of rights issues have been oversubscribed by 115.8%[67]. They cited the oversubscription as a demonstration of strong endorsement by unitholders of Fortune REIT's prudent capital structure, synergistic acquisition strategy and long-term growth potential.

In 2011, Fortune REIT formally announced a grand rebranding scheme for their 14 shopping malls. Henceforth, all 14 assets would be known collectively under the "Fortune Malls" brand name. They cited the need to create a sense of belonging and community among its shoppers. To achieve that, the collective brand image must be more sharply defined as well as conveying an image that would resonate better with tenants, shoppers and the local communities.

The entire rebranding scheme had a new tagline "Be you. Be at Fortune". In addition, it also involved moderate degree of renovation works that aimed at harvesting a harmonious relationship among the local community as well as attracting greater traffic flow and creating a sustainable business environment for the tenants.

In 2012, Fortune REIT acquired Belvedere Garden Property in Tsuen Wan and Provident Centre Property in North Point for HK$1.25 billion and HK$0.65 billion respectively[68]. These purchase prices were both below the appraised value calculated by independent valuator - Knight Frank Pretty Limited at HK$1.3 billion and HK$0.68 billion respectively. Both assets are in Hong Kong.

These assets were expected to be yield-accretive and contribute to Fortune REIT's performance in full during FY2013. To be more specific, the DPU of

[66] http://www.fortunereit.com/html/newsroom_announ_sg.php?year=2009
[67] http://store.todayir.com/todayirattachment_sg/fortunereit/attachment/2014061216221717_en.pdf
[68] http://fortunereit.todayir.com/attachment/2014071118401617_en.pdf

Fortune REIT post acquisition from the larger portfolio was expected to be 13.66 HK cents, an increase of 6.7 percent from 12.8 HK cents.

Belvedere Garden Property was later subject to asset enhancement initiative that was completed in November 2015[69] and renamed Belvedere Square. To date, it is the only retail mall in the local vicinity that enjoyed a huge residential catchment of around 30,000 residents.

In 2013, Fortune REIT acquired Kingswood Ginza Property[70]. The property was subsequently renamed Fortune Kingswood. Fortune REIT cited Fortune Kingswood location within the Tin Shui Wai area in Hong Kong naturally gave it proximity to capture increasing demand from mainland China visitors. This acquisition was Fortune REIT's biggest to date which increased their gross rentable area by 27.2 percent to 3.11 million square feet.

In October 2015, Fortune REIT formally applied to SGX to convert its listing status on the Main Board of SGX to a secondary listing. Henceforth, Fortune REIT's primary listing location became HKEX.

In August 2016, Fortune REIT announced that they have just signed a loan facility amounting to HK$4.5 billion[71]. The new facility consisted of HK$3.8 billion term loan and HK$0.7 billion revolving credit. On average, the new facility will bear an interest margin of 115 basis points above HIBOR. The new loan facility was expected to generate savings in interest expense after part of its existing loans are refinanced. This new loan facility at relatively lower rate will represent approximately 40 percent of Fortune REIT total banking facilities.

In February 2017, Fortune REIT received the Triple Gold Award[72] at Hong Kong Smoke-free Leading Company Awards 2016 from the Hong Kong Council of Smoking and Health. The report mentioned that this was a testimony to Fortune REIT steadfast commitment to promoting a smoke-free culture and a healthy shopping environment across its 17 shopping malls in Hong Kong.

It was also reported that over the years, Fortune REIT had undertaken several steps towards providing a smoke free environment for the public. First, they have established an in-house Smoke-Free Culture Action Committee in 2011 that was responsible for reviewing smoke-free policies as well as coming up new measures on a timely basis to tackle new challenges. Second, Fortune

[69] http://store.todayir.com/todayirattachment_hk/fortunereit/attachment/201511161512141712274657_en.pdf
[70] http://fortunereit.todayir.com/attachment/2014071109492117_en.pdf
[71] http://store.todayir.com/todayirattachment_hk/fortunereit/attachment/201608101906561749135868_en.pdf
[72] http://store.todayir.com/todayirattachment_hk/fortunereit/attachment/201702281448291742695677_en.pdf

REIT also put in place a series of regular smoke free verbal announcements as well as held related exhibitions on their vicinities. Third, their in-house volunteering team also actively engaged in various smoke-free promotional events such as promoting the adverse health impact from smoking to the public as well as cleaning up cigarette butts along the streets.

Insights: in this case study, I observed the diligent effort by Fortune REIT in scouting, negotiating, and executing yield accretive real assets. Even though the final acquisition prices were only slightly below that of independent valuations, the yield accretive impact on unit holders provided strong objective evidence of enhanced shareholder value. Even after taking into consideration the additional rights issues during each asset acquisition, DPU had remained on a consistent uptrend from FY2012 to FY2016[73]. This demonstrated the importance of asset acquisition business acumen which was in congruent with that uncovered during the literature review (DeNicolo & Herbert 2017).

Rising share prices aside, the oversubscription of rights issues during October 2009 was another objective evidence of market support for Fortune REIT's business model.

The grand rebranding activity in 2011 also demonstrated the importance of re-creating a shopping environment that had been timely and acceptable for the modern demographics. Ceteris paribus, people prefer to shop in places where they can experience a sense of belonging.

On top of the rebranding exercise, Fortune REIT also undertook both physical renovation and promotional campaign after each asset acquisition. For Fortune REIT, they strategised the above series of activities as one big step forward in creating the impression that Fortune shopping mall is "everywhere" among its retail tenants and associated customers.

Case 3 – Hong Kong: Link REIT from March 2010 until July 2017

Background Information: Link REIT was listed in November 2005, they were the first listed REIT in Hong Kong as a result of the government's decision to privatize their portfolio of community shopping malls, car parks, and wet markets. Since then, Link REIT had moved on from purely managing retail spaces in public housing areas in Hong Kong to other property types out of Hong Kong. These locations included Beijing and Shanghai. As per this

[73] http://www.aastocks.com/en/stocks/analysis/company-fundamental/dividend-history/?symbol=00778

writing, Link REIT operated an internal retail space of approximately 10 million square feet as well as 72,000 car park lots. Among the 11 REITs listed on HKEX, only Link REIT adopted an internal manager structure.

Case Development: in 2011, Link REIT acquired the commercial portion of Nan Fung Plaza. This was their first acquisition post listing in 2005. Nan Fung Plaza was located next to Hang Hau MTR station, with an internal floor area of 83,137 square feet[74]. In the same year, Link REIT also acquired the commercial accommodation of Maritime Bay – Maritime Bay shopping mall. This asset was acquired just six months after the Nan Fung Plaza transaction. The asset is in Tseung Kwan O area and occupied an internal floor area of 41,017 square feet[75].

In 2014, Link REIT acquired 61 car park lots in Lions Rise Mall. In the same year, Link REIT disposed Choi Fai property, Choi Hai property, Siu Lun property, Tin Ping property, Tsui Lam property, Hing Tin commercial centre, Kwai Hing shopping centre, Po Hei Court commercial centre[76], the retail and car park within Tung Hei court and the Wah Kwai shopping centre. Each of the disposal occurred at a price that was higher than the appraised value of the respective property. NAV of Link REIT increased by about HK$444 million after those disposals.

Link REIT also entered a letter of intent with China Vanke for the acquisition of an 80 percent interest in a shopping mall and the associated car parks in 2014. In 2015, the company acquired a land development project through a joint venture with Dual Success Investments Limited to build an office unit. Link REIT cited various reasons[77] for entering this development joint venture.

First, the additional cash flow from the office units served to complement Link REIT' overall income stream that was previously dominated by retail assets. As of the date of the joint venture, rental yield of retail assets was at its historical low which rendered diversification into the office sector synergistic. Second, the joint venture provided Link REIT with an opportunity to invest in an asset fully customized to their specifications. Third, direct investment during the property development stage allowed Link REIT to enter at a relatively lower cost compared to acquiring a completed commercial asset.

In 2016, Link REIT disposed Shek Yam property[78], Wan Tau Tong property, Hing Man property, Kam Ying property, Mei Chung property, Po Nga property,

---

74 http://www.linkreit.com/EN/assets/Pages/Asset-Investment---Nan-Fung-Plaza.aspx
75 http://www.linkreit.com/EN/assets/Pages/Maritime-Bay-.aspx
76 http://www.linkreit.com/EN/investor/Documents/e20140520-Disposal%20of%20Properties.pdf
77 http://www.linkreit.com/EN/investor/Documents/20150127_EW0823ANN.PDF
78 http://www.linkreit.com/EN/investor/Documents/eAnn_Disposal%20of%20Two%20Properties_20160331.pdf

Po Tin property, Tin Ma property[79], Yan Shing property, Cheung Hong commercial center, On Yam shopping center, Shek Wai Kok commercial center, Sui Wo Court commercial center, Sun Tin Wai commercial center, Cheung Hong property, On Yam property, Shek Wai Kok property, Sui Wo Court property and Sun Tin Wai property[80].

Each of the disposal occurred at a price that was higher than the appraised value of the associated property. NAV of Link REIT increased by HK$1.336 billion after the disposals.

In July 2016, Link REIT issued their first green bond to raise US$500 million at a fixed interest rate of 2.875 percent. The green bond issue matured in 2026 and was rated A2 and A by Moody and S&P respectively. The interest rate was a historical low achieved by any Hong Kong corporation during the time of issue.

Insights: As per this writing, Link REIT had demonstrated ability to divest all its assets at above cost and appraised market value. In the short run, this has been yield-accretive to their NAV. In the mid run, this enabled capital to be efficiently recycled and redeployed for yield-accretive acquisitions. In the long run, it will demonstrate Link REIT's ability in market timing. Once again, this case study highlighted the considerable advantage that came with the REIT manager's asset acquisition and/or disposal business acumen as per emphasised by DeNicolo & Herbert (2017) during the literature review.

Following the letter of intent with China Vanke in 2014, Link REIT signaled to the market a change in its strategy. Whether this strategic move will be successful or not will depend on the executional capability of Link REIT in the unchartered territories. Link REIT's joint venture in the office building development project in 2015 provided a glimpse on it.

First, diversification into income streams from various asset types at the corporate level might play a role in enhancing the stability of Link REIT's business model in the long run. However, at the shareholder level, this non-pureplay approach might not be beneficial. Moreover, as had been highlighted by Lok (2013) cited in the literature review, there was empirical evidence for homogenous REITs outperform diversified REITs in the long run. Link REIT's preference for diversified income streams will need to withstand the test of time. At the minimum, Link REIT needs to demonstrate its capability to

---

[79] http://www.linkreit.com/EN/investor/Documents/eAnn_Disposal%20of%207%20Properties.pdf

[80] http://www.linkreit.com/EN/investor/Documents/eAnnouncement%20(Disposal%20of%20Properties)%20(20161216)v3.pdf

overcome the diseconomies of scale in managing a portfolio of diversified assets.

Second, the ability to customise the architecture and interior design of an office building might enhance the eventual rental yield. This is because newer buildings can be designed and built to accommodate the latest changes in tenant demand. This effect is particularly pronounced within the office real estate sector.

Third, entering the real asset business at the developmental stage provided Link REIT with the potential to capture more value add when compared to acquiring completed properties in the open market. This argument however only holds out under two assumptions. First, from the onset of the development project until completion, the property market must not turn bearish. Second, both Link REIT and their joint venture partner must be on top of their game during project execution to ensure that initial developmental budgets are not exceeded. The former assumption is an environmental factor that is uncontrollable while the latter assumption depends on the skill and experience of both joint venture entities.

Finally, Link REIT's ability to raise a 10-year bullet maturity green bond at historically low interest rate for corporations in Hong Kong demonstrated the solid confidence that bond investors have for them. The investment grade rating of A2 and A on the green bond provided further objective evidence of Link REIT's stable financing structure. As discussed in the literature review (Pefindo 2016), the ability to secure funding at low cost is crucial for the REIT business model.

Case 4 – Singapore: SGP2 from Dec 2010 until July 2017

<u>Background Information</u>: during the time of this case study, SGP2 owned 21 industrial properties across Singapore. SGP2's sponsor owned 12 percent of SGP2 and at the same time indirectly controlled 51 percent of SGP2's manager.

<u>Case Development</u>: in 2014, SGP2 released its 1st quarter results. The results were disappointing. The management announced a 22 percent cut of quarterly DPU to 1.88 cents, relative to 2.41 cents a year ago. The official announcement attributed the poor results to the conversion of four master-tenanted properties into multi-tenanted properties in 4th quarter 2013 which led to lower occupancy rate. In lay man terms, four anchor tenants did not renew their leases with SGP2. And SGP2 was not able to find individual

tenants to patch up the gap. On the surface, this seemed like a typical case of operational mismanagement.

Fast forward to 2015, SGP2 announced the divestment of a property. This property was sold for S$38 million. Back then, the book value of this property was S$44.9 million. The property was therefore sold at a loss.

The intriguing part of the deal was not the net loss. First, the lease of this property was still relatively long. It was a rare 99-year lease property that commenced from 1984. This implied that there was 68 years left, which was unusually long for its asset class type. Under contemporary ruling, all properties under this asset class type have been shortened to 30 years. Within the SGP2's sub-sector therefore having long land lease is a major competitive advantage. It was therefore puzzling why the management has disposed this asset.

Second, the management argued that the net property income yield from this property has not been performing and they were not able to rent out most of the space. This once again sounded more like a case of mismanagement. Interestingly, SGP2 went further to argue that despite the loss on disposal, the sale would be yield-accretive in the long run.

The above loss-making decision was not isolated. During November 2015, SGP2 renewed three master leases with lower rental rates. These three-master leases were signed with SGP2's sponsor.

Given such dismal performance by the REIT manager, it should have triggered shareholder activism. In 2017, that was exactly what the unitholders did. The minority unitholders conducted a shareholder meeting to remove the REIT manager on 28th April 2017.

During the temperamental three-hour meeting, unitholders challenged the valuation methodology adopted by the independent property valuators. The unit holders also questioned the independence of SGP2's manager chairman who publicly commented that signing off the REIT's annual report is not the same as stating his opinion on the valuation of the REIT's properties.

In the end, the shareholder activism to remove the REIT manager failed to take off after 69.48 percent of the votes did not agree with the notion. SGP2's sponsor was one of the major institutional shareholders that voted against the notion. Interestingly, SGP2's manager also happened to be the manager for another REIT listed on SGX. Prior to SGP2's listing, there have been some mass media reports on the manager's dismal performance when managing the other REIT listed on SGX.

Insights: SGP2 had been a classic case of management's inability to navigate through difficult times. By itself, this was not a pure CG issue. The key issue of interest laid with the enormous amount of difficulties for minority shareholder to remove manager that was deemed to be incapable.

On the trust deed of every REIT, the specific details on how the manager can be removed is stated very clearly. In practice, however, this act can be hard or impossible to execute. First, if the REIT is captive, which has been relatively common for most REITs in Hong Kong and Singapore, the sponsor will be entitled to a lot of control. This had been demonstrated very clearly in the case study.

Second, even if the resolution to remove the manager was passed, things might not immediately improve. To begin with, loan covenants in debts might get triggered by the removal of a manager. That will have immediate consequences on both the liquidity and solvency of the REIT.

On top of that, there was also the problem of succession. Once the manager has been removed, it will take some time to locate a new manager. In Singapore, both the management and directors of the new REIT manager must be pre-approved by the Monetary Authority of Singapore (MAS). As observed, removal of the REIT manager on paper seemed to be a simple and structural process. In practice though, it has remained complicated and highly uncertain.

5.1.3 Analysis and result of key pilot factors

Deriving from the above case studies and taking into full consideration the relevant insights uncovered during the literature review, the following list of key pilot factors were generated (For detailed narration of the specific key pilot factors, please refer to Appendix 7ai):

Key pilot factors - General:

- Relevant macroeconomics statistics:
    - Sustainable economic growth.
    - Property business cycle.
    - US Federal Fund rate.
    - FOREX rate volatility.

- Demographics changes:
    - Organic population growth.

- Aging profile.
- Migration trend.
- Changes in governmental immigration policy.

- Short term demand and supply dynamics.

- Asset base – economies of scale can be gained in the form of:
  - Lower management cost per dollar of asset managed.
  - Lower cost of debt funding.
  - Lower cost of equity.
  - Enhancement to brand equity.
  - More bargaining power with stakeholders[81] within the ecosystem.
  - Better diversification.

- Operational efficiency and efficacy:
  - Rental rates relative to other REITs in the same sector.
  - Rental lease renewal strategy.
  - Asset enhancement activities.
  - Income stability.
  - Income growth potential.

- Physical asset attributes:
  - Location.
  - Asset quality.
  - Type of real asset classes.
  - Degree of asset class homogeneity among its real assets.
  - Rental lease expiry profile.
  - Diversity of tenant base.
  - Occupancy and base rental rates relative to competition.
  - Surrounding environment of the underlying real assets.
  - Risk of natural disasters.

- Financial metrics:
  - Fund flow from operation (FFO).
  - Adjusted fund flow from operation (AFFO).
  - Dividend yield.
  - Debt profile.
  - Debt gearing ratio.
  - Book value per share.

---

[81] *According to Porter's 5 forces, the relevant stake holders are customers, suppliers and competitors.*

    - Price-to-book value per share.
    - Details of property revaluation.

- CG issues:
    - Track record of property acquisitions and disposals. During property acquisition and disposal, look out for the following issues:
        - Are the rationales given justifiable?
        - Are these actions yield-accretive?
        - Track records of property acquisition and disposal.
    - Independence of realty valuator.
    - Track record of related party transactions.
    - Track record of non-preemptive rights issuance.
    - Anchor tenant.
    - Property management company.
    - Frequency of conducting AGM.
    - Board independence.
    - REIT manager.
    - REIT adviser.
    - REIT trustee.
    - REIT sponsor.

- Opportunities and threats
    - Real assets available for portfolio injection at reasonable prices.
    - Presence of a sponsor.
    - Governmental policy towards the REITs industry.

Key pilot factors - Industrial:

- Pick up in consumption generates the additional need for factory and warehouse spaces to manufacture and store the goods respectively.
- Consumer spending (Lazard 2016) and retail sales.
- Import/export statistics (Spector *et al* 2013).
- Structural changes within the local economy.
- Oil price.
- Purchasing Manager's Index.
- Land space dynamics.
    - Total stock.
    - Country wide occupancy.
    - Regional occupancy.

    - Potential supply of industrial land in the future.
- Inventory and stock of finished goods.
- Diversity of tenant industry mix.
- Changes in industrial property price index.
- Changes in transaction volume.
- Strategic positioning.
- Automation facility is important for industrial real assets.
- Access to transportation network.
- Time enduring innovations.
- Government policy for attracting new industries.

Key pilot factors - Hospitality:

- Changes in tourist arrival numbers.
- Diversity of tourist arrival sources.
- Changes in average duration of tourist stay.
- Growth of disposal income (Lazard 2016).
- Changes in consumer sentiments (Lazard 2016).
- Relative fluctuation of domestic currency with respect to US dollar.
- New development in political sensitivities.
- Business spending (Lazard 2016). Aggregate statistics for MICE[82] events.
- Changes in the banking and finance industry business cycle and hiring preferences.
- Market wide hotel occupancy trend.
- Expected add-on to room supply for the upcoming three years.
- Disruptive innovations within the hospitality industry (Buhalis *et al* 2016).
- Gradual innovations within the hospitality industry[83].
- Relevant government blueprints.
    - Enhancement of transportation infrastructure[84]
    - Enhancement of tourist hotspots
    - National tourism promotion campaign

---

[82] *MICE stand for meetings, incentives, conferencing and exhibitions.*
[83] https://www.inc.com/adam-fridman/3-ways-technology-is-disrupting-the-hospitality-industry.html
[84] *Heavily reliant on the intensity of collaboration among the relevant governmental body. In the case of Singapore, it will be Civil Aviation Authority of Singapore, Land Transport Authority and Tourism Promotion Board. In Hong Kong, that will be the Transport Department, Civil Aviation Department and Travel Industry Authority.*

Key pilot factors - Retail:

- Favorable surrounding amenities encourage the physical clustering of human activities in concentrated geographical pockets
- GDP growth rate.
- Perceived and/or actual wealth effect from economic growth can motivate the general population to spend more.
- Changes in tourist arrival numbers.
- Diversity of tourist arrival sources.
- Changes in average duration of tourist stay.
- Changes in tourist spending habit.
- Relative fluctuation of domestic currency with respect to US dollar.
- New development in global political sensitivities.
- Hiring trends among core retail demand sectors[85].
- Residential property market buoyancy.
- Trend of median income.
- Changes in consumer spending[86] (Lazard 2016).
- Changes in Consumer Price Index (Lazard 2016).
- Deflationary risk or the perception of deflation.
- Population growth rate (Lazard 2016).
- Changes in country wide retail net absorption (occupancy).
- Changes in country wide new retail space supply.
- Occupancy and tenancy turnover.
- Innovation within the industry[87].
- How successful is the promotional campaign across the entire shopping mall flagship?
- Thematic shopping mall and vendor management[88].
- Strategic asset enhancement initiative.
- Tenant mix optimisation.
- Relevant government blueprints:
    - Enhancement of transportation infrastructure (Ashely 2006)
    - Enhancement of tourist hotspots[89]
    - National tourism promotion campaign

---

[85] These sectors include banking and finance, commerce and other professional services.
[86] Retail REITs usually adjust tenants' rental based on the latter sales growth rate.
[87] The dawn of E-commerce platforms such as Qoo10, Ebay, Amazon and Alibaba.
[88] Coming up with a strategic mix of luxury, established home grown and niche retail brands that is appropriate for the geographical location and neighboring population culture can be a competitive differentiation factor.
[89] An example is the up and coming Changi Airport Terminal 4 in Singapore that will contribute 159,100 square feet of new retail space.

Key pilot factors - Office:

- Physical clustering of human activities in concentrated geographical pockets.
- Changes in unemployment rate.
- Hiring trends among the core demand sectors.
- Corporate profits outlook (Lazard 2016).
- Changes in GDP.
- Changes in country wide office net absorption (occupancy) as measured in square feet on annual, three-year, and five-year basis.
- Changes in country wide office space supply as measured in square feet.
- Occupancy and tenancy turnover rate (Long 2014).
- Substitutes for CBD spaces in the outlying area.
- Average lease maturity – what percentage of tenants are on long term lease?
- Innovations within the industry[90].
- Tenant characteristics (Cheah *et al* 2015).
- Green building certification.
- Buildings with smart units, modern facilities and efficient maintenance services command higher rents.

From the above list of key pilot factors, I distilled out a list of questions for pilot interviewing purpose as archived on Appendix 7aii.

---

[90] One good example is the partnership between Capital Commercial Trust and co-working space operator – Collective Works. This partnership involved the redevelopment of the entire 12th floor at Capital Tower into a 22,000 square feet co-working space sufficient to house up to 250 companies. It is expected to attract small office space demand from the fin-tech, social media, venture capital and other niche sub sectors. Commercial REITs that are unable to evolve their business models to accommodate such new megatrend underlying demand dynamics will face strong headwinds during the next economic downturn.

5.2 Analysis and result of stage 2 – Primary research

5.2.1 Analysis and result of pilot testing

Summary of responses towards pilot questions sent to the 6 REIT experts:

- **First respondent** - Investor relation officer: the respondent suggested four versions of question sets:
  - A detailed set of questions as the generic question bank.
  - A general set of concise questions that would be applicable for all categories of REITs. This should serve as the base questions for investors to screen through an initial list of REITs.
  - A specific set of concise questions catering for each sub-sector
  - A country specific set of concise questions.

  The respondent cited three rationales for the above suggestions. First, most investors only have one or two opportunities to have direct conversations with senior management per year. It is therefore very crucial for them to have a list of concise questions to select from. Coincidentally, the importance of being concise during business model narration have been highlighted by Wu (2009) and Osterwalder, Pigneur & Tucci (2005) during the literature review.

  Second, during intensive desktop research and field trip, the detailed set of questions will be very handy. Third, real estate as an asset class tends to be heavily influenced by the unique local culture and regulation. Therefore, having a country specific list of questions would be very helpful.

- **Second respondent** – Private equity manager: the respondent was relatively comfortable with the comprehensiveness of the pilot question set and provided a few additional suggestions.

  First, the respondent sought clarity to the specific investment strategies that REIT manager undertook during asset acquisitions. Second, the respondent applauded the heavy weightage of questions posted pertaining to CG. The respondent felt that the CG of listed REITs in APAC still has tremendous room for further improvement. Third, the respondent was particularly keen to understand how REITs have dealt with disruptive innovation. Disruptive innovation has been a common topic encountered during the literature review as narrated by PwC (2016) and Buhalis *et al.* (2016). In addition, the respondent also felt that the questions being asked in this section could have been more specific.

- **Third respondent** – IPO prospectus preparer: the respondent gave a couple of suggestions on how to rephrase certain sentences to make it less ambiguous. For instance, with regards to the question on "how FOREX rate volatilities exerted its impact on REIT business model"; the respondent suggested modifying the question to trigger more granular answers such as asking: "What is the hedging cost as a percentage of the operating income and/or expenses?"

  In addition, the respondent also suggested seeking clarity on management fee ratio in the form of management fee per AUM. On top of that, the respondent also encouraged additional questions pertaining to the relationship between REITs' funding source and their cost of capital as well as how REITs manage the different expectations of cornerstone investors.

  The respondent was particularly interested in the dividend yield that cornerstone and major institutional investors typically expect as well as how the REITs intend to achieve or exceed these expectations. The respondent went on to suggest getting interviewees to rank a list of factors that REIT managers consider important to examine during property acquisitions.

  Data scope wise, the respondent felt that having country wide statistics would not be sufficient. For continental nations, such as China and India, statistics in tier one versus tier three cities can be quite different. Finally, under the 'onslaught' of online shopping platforms, the respondent was keen on insights pertaining to the business rationale and strategy for retail REITs' tenants to continue renting their physical premises.

- **Fourth respondent** – CFO of a REIT: the respondent felt that as a research guide, the pilot set of questions already has sufficient depth. But as a questioning framework for investors to interact with top management during results briefing, a concise version would have been more appropriate. The respondent welcomed the sub-sector question sets but expressed concerns on whether the content might have been too technical for retail investors. The respondent also suggested additional questions that were taken into consideration in my first draft questioning framework in Appendix 7b.

- **Fifth respondent** – Equity analyst: the respondent suggested lowering down the tone of the question set to make it less intrusive and judgmental so that the management of the REITs will be more forthcoming during face-to-face interviews. In addition, the respondent felt that industrial REIT as a sub-sector might be too broad. The industrial REIT should be subdivided into logistics, data center, flatted factory, and other subcategories. The respondent also provided suggestions to simplify some of the questions.

- **Sixth respondent** – Fund manager: the respondent felt that my pilot question set already has sufficient depth and scope. The questions have been relevant, clear, and provided enough room for end users to further expand their scope of questioning where necessary. The respondent however also advocated a concise version to supplement my pilot question set.

  On top of that, the respondent also mentioned about the importance of changes in regulation on short term demand and supply dynamics (Hong Kong Monetary Authority 2017). This can be inferred from the series of property price cooling measures put in place by the government in Hong Kong and Singapore over the past decade.

  Finally, the respondent suggested additional questions to seek out the tolerance level of REITs towards hikes in general interest rate. Specifically, tolerance level can be measured on both magnitude and duration dimensions.

As observed, most of the comments from the six REIT experts revolved around suggestions to enhance stakeholder communication. These included making it more concise for end users, having multiple versions to carter for the needs of different stakeholders.

There were a few add-ons and amendments to the detailed version of the questioning framework. None of the questions from the pilot questioning framework was found to be completely irrelevant.

Following that, I proceeded to draft out the first draft concise version of the questioning framework, as distilled from the pilot version as shown below and also archived on Appendix 7b.

First draft concise question set for the REIT industry – General:

- How are the macroeconomics environments in your major markets? Are they challenging or favorable to your business model?
- How about the impact from changes in local demographics?
- How tolerant are you towards a general hike in interest rates?
- Can you provide us with some sense of the short-term demand and supply dynamics in your key markets?
- I hope to gain some sense of the scaling benefit in terms of reduction in management fees. What is your management fees to AUM ratio?
- What is your average cost of debt financing?
- Do you expect positive rental reversion in the near future?
- Can you share with us your asset enhancement strategies?
- Please share with us the yield accretive acquisitions you have undertaken (if any). How did you convince the property owners to offload at such attractive pricings?
- Please cast some light on your rental lease expiry profile. Is it well staggered?
- Can I have some sense of where you currently stand from market average in terms of average occupancy and rental rate?
- Is your debt gearing ratio healthy? How do you intend to finance future property acquisitions?
- Can you provide a snapshot of your annual net asset revaluation per share for the past five years?
- With regards to related party transactions, are there sufficient internal safeguards to mitigate potential conflict-of-interest?
- Are there any track records of non-preemptive rights issuance?
- For captive REIT only - Is the property management company related to the sponsor? How are their fees structured? Is it predominantly a flat fee or is part of the fee incentive driven?
- Is there any overlap in directorship between the board of the sponsor and the board of the REIT manager?
- Can you describe the compensation scheme for the REIT manager?
- Is there any embedded clause on the trust deed that could be utilised by the sponsor to issue non-pre-emptive shares to themselves to fence off hostile takeover?

Concise question set (Industrial):

- Is your business model highly correlated with consumer spending across the respective geographies?
- What are the key sectors underpinnings your tenant mix?
- Are there any structural changes within the local economy of your key markets that will exert huge impact on your business model?
- How is the land space dynamics evolving in your key markets?
- Relative to the market, how did your occupancy rates fare?
- How diversified is your pool of tenant mix?
- How are your key assets coping with asset enhancement?
- Are there any major disruptive innovations that are expected to have a huge impact on existing industrial REITs?

Concise question set (Hospitality):

- Can you share with me the geographical diversity of your guest pool? Are you particularly reliant on guests from a specific country?
- Has currency fluctuation exerted strong influence on your business revenue?
- Are changes in business spending affecting your business model?
- Is secular shift in the hiring preferences within the banking and finance industry affecting your business model?
- Do you have any contingency plans for catastrophic events such as disease outbreak and terrorist attack?
- How is the add-on room supply trend in your key markets for the upcoming three years?
- Is your business model heavily affected by Airbnb? Do you foresee any other disruptive innovations within the hospitality REIT industry?

Concise question set (Retail):

- Have you experienced a change in consumption sentiments among the mass population in your key markets?
- Is the revenue from your key markets sensitive to changes in tourist arrival numbers?
- Is there a positive relationship between the level of median income in your key markets and your revenue?

- Can I have some sense of the country wide retail net absorption rates for the past five years across your key markets?
- Relative to the market, how did your occupancy rates fare?
- For the next three years, are you expecting significant amount of add-on retail spaces across your key markets?
- How do you decide which asset to undergo physical enhancement? What do you look out for during asset physical enhancement?
- Is the rise of online shopping platform given your business model a run for your money? How has it affected your respective key markets? How do you intend to deal with it?

<u>Concise question set (Office)</u>:

- Do changes in GDP statistics correlate strongly with your top and bottom lines? Which are the key markets whose occupancy rates have demonstrated exceptional sensitivity towards changes in GDP?
- Are changes in unemployment rate the critical drivers behind office space demand across your key markets? If so, please provide a detailed narration of your worst and best key markets on this aspect.
- Are changes in corporate profits outlook exerting a big impact on the business models across your key markets? If so, please provide a detailed narration of your worst and best key markets on this aspect.
- Can I have some sense of the country wide (and where applicable city wide and district wide as well) office net absorption rates for the past five years across your key markets? Relative to the market, how did your occupancy rates fare?
- For the next three years, are you expecting significant amount of add-on retail spaces across your key markets? If so, how would you cope with it?
- What is the average lease maturity? Is it well staggered?
- Is your business model under the challenge of disruptive innovations? If so, what are they? And how do you intend to cope with them?

The country specific set of questions that was suggested is useful. However, that was beyond the scope of this research given that only Hong Kong and Singapore were covered. Future research that covers a wider geographical scope across Asia-Pacific can consider this suggestion.

Similarly, more granular classifications within the industrial sub-sector would have yielded more useful sectorial questioning frameworks. But given the limited population of listed industrial REITs in Hong Kong and Singapore, this suggestion is better reserved for future studies that cover a wider geographical scope across Asia-Pacific.

The original pilot questioning framework was redrafted to assimilate the comments from the six REIT experts. The new format now labelled as the first draft questioning framework as shown below and also archived on Appendix 7b.

<u>Detailed question sets</u>:

First draft questions for the REIT industry – General:

1. Macroeconomics and demographics
    a. Is the economic growth rate in your target markets sustainable?
    b. How would a deviation in your forecasted growth rate impact your business in the short and long run?
    c. There has been evidence of widening income equality across the world, how does this affect your business strategy?
    d. Is traffic congestion a serious problem in your target markets?
    e. How are the property business cycles in your respective target markets? Are you coping well with all the headwinds?
    f. All REITs are affected by the threat of an interest rate hike. How tolerance is your business model towards a general hike in interest rate, in terms of both magnitude and duration?
    g. What measures can be taken to mitigate the impact of an interest rate hike?
    h. Tell us more about the FOREX rate volatilities that your business model is being exposed to. Did you undertake any hedging? If so, how did you do it? Please quantify your hedging cost as a percentage of the operating income and/or operating expenses.
    i. Is there a natural hedge between your source of financing and your operating cash flow?[91]
    j. Tell me more about the demographics profile in your target markets? Within the next 5 to 10 years, how will these demographics changes impact your business?
    k. Is migration a key factor in your business model?
    l. Is the government immigration policy in your target market favorable for your business model? Are there any anti-foreign resident sentiments building up among the masses in your target markets?

[91] Natural hedge occurs when a REIT's property is in a country similarly to its debt provider.

2. Short term demand and supply dynamics.
    a. How are the short-term demand and supply dynamics of your target markets affecting your business model?
    b. Is there anything we as investors should take note of; especially pertaining to market sentiments.
    c. Is there any regulatory issue that is affecting the short-term demand and supply dynamics?

3. Scale[92] related factors
    a. I hope to gain some sense of the scaling benefit in terms of reduction in management fees. What is your management fees to AUM ratio?
    b. What is your average cost of debt financing? Can you provide a range?
    c. Why is there such a wide range? (If the range is too wide) Can you explain[93]?
    d. Does size (in terms of AUM) exert any influence on your relationship with anchor tenants? Is it always the bigger the better?
    e. In terms of asset class, both pure play and diversified mode have their respective pros and cons. How do you strike an optimal balance between these two operational styles[94]?
    f. How many properties have you acquired over the last three years?

4. Operational efficiency and efficacy
    a. Will there be rental reversion in the near term, mid-term, and long term? What is the underlying logic?
    b. How did you achieve above market rental reversion? (if any).
    c. Please describe your lease renewal strategy.
    d. What are your asset enhancement strategies? Track records, near future and in the long run.
    e. How stable was your dividend payout history? What strategies did you deploy to maintain stability in DPU?
    f. Can I have a feel of the dividend yield that most of your institutional investors are expecting? What is your strategy to meet or perhaps exceed this expectation?

[92] The greater the AUM, the more prominent the scale effect.
[93] One of the most common reason given: different funding sources have varying cost of capital.
[94] A common reason given is that the optimal style is dependent on both the mandate of the REIT as well as the expectations of cornerstone investors.

g. Please share with me the yield accretive acquisitions you have undertaken? (if any). How did you convince the property owners to sell you at such an attractive price?
h. When scouting for properties to acquire, what are the key attributes[95] you typically look at behind making the final decision?

5. Physical asset attributes
    a. Please describe the locational advantages of your prime assets.
    b. Would your prime assets be affected by any future developmental work by the local government? If so, please describe them in detail.
    c. Are your prime assets exposed to catastrophic risks? If so, what steps can be taken to mitigate the effects from these risks.
    d. Is having modern facilities a major selling point of your physical assets? If so, please provide the examples.
    e. For diversified REITs - How did you minimize the structural disadvantage associated with your diversified asset portfolio?
    f. Please cast some lights on your rental lease expiry profile. Is it well staggered?
    g. Do you rely on anchor tenants to stabilize the rental income for your prime assets? If so, how much discount in rental rate have you given them?
    h. Can I have some sense of where you currently stand from market average in terms of occupancy and rental rate?

6. Financial metrics
    a. Can you provide a snapshot of your annual FFO and or adjusted FFO per share for the past five years? What is your definition of recurring capital maintenance expenses?
    b. Can you provide a snapshot of your annual DPU for the past five years?
    c. Is your debt profile sufficiently staggered? Can you provide the break down?
    d. Is your debt gearing ratio healthy? How do you intend to finance future property acquisition?
    e. Would you like to explain why your price-to-book value per share is above/below market average?
    f. Can you provide a snapshot of your annual net asset revaluation per share for the past five years?

[95] Examples of such attributes would include location, size of project, demographics of the surrounding neighborhood, expected break-even time horizon, potential capital gain, expected rental yield, suitable co-invest partner and suitable property management company.

7. Corporate governance issues
    a. During EGMs for asset acquisition and disposal, voice out the following questions (if relevant) to management:
        i. What are the rationales for undertaking such yield destructive acquisition?
        ii. You seem to have a long history of acquiring properties at inflated prices. Can you provide the reasons for doing so?
    b. Can you share with me the process of selecting the realty valuator during annual property valuation? Who makes the final selection decision?
    c. With regards to related party transactions, are there sufficient internal safeguards to mitigate potential conflict-of-interest?
    d. Are there any track records of non-preemptive rights issuance?
    e. For REITs with internal managers:
        i. How are the board members selected?
        ii. How are the remuneration committee members selected?
        iii. How are the audit committee members selected?
        iv. Can you describe the internal audit reporting process?
        v. How independent are the board of directors?
        vi. Did any of the director sit on the board of other REITs?
    f. Is the REIT structure captive?
    g. If the structure is captive, what is the process flow for valuation during real estate transfer from the sponsor to the REIT?
    h. Are there any anchor tenants that are related to the sponsor? If so, what is the percentage discount in rental rates relative to that of average specialty tenants in the same building?
    i. Is the property management company related to the sponsor? How are their fees structured? Is it predominantly a flat fee or is part of the fee incentive driven?
    j. Do you engage an advisor? If so, how is the compensation being structured? And is the advisor related to the sponsor?
    k. Is the trustee independent from both the REIT manager and the sponsor? And how is the compensation being structured?
    l. Is the REIT manager related to the sponsor?
    m. Is there any overlap in directorship between the board of the sponsor and the board of the REIT manager?
    n. Does the REIT manager manage other REITs concurrently?
    o. Can you describe the compensation scheme for the REIT manager?
        i. Is the base salary derived as a fixed percentage of total AUM?
        ii. If so, how much would that be?

iii. Is there any measure put in place to prevent the manager from amassing AUM for its own benefits? In other words, is there any measure put in place to mitigate devious property churning?
iv. How is the incentive bonus awarded? Investors preferred management fees that is aligned to their interest; is there a proportional relationship between incentive bonus and DPU?
v. Can you provide a breakdown of the percentage of remuneration that is derived as a fixed percentage of total AUM versus incentive bonus during the past five years?
vi. How will the manager be awarded during property acquisition and disposal?
vii. Is there any claw back clause for the bonus incentive portion? If so, how does it work?

p. Can you describe the circumstances in which the manager can be replaced?
q. Can you also describe the process flow for ousting a manager?
r. During the removal of the REIT manager, is there any golden parachute? If so, does the compensation commensurate with industry average?
s. Is there any embedded clause on the trust deed that could be utilized by the sponsor to issue non-pre-emptive shares to themselves to fence off hostile takeover?

8. Opportunities and threats
    a. Can you provide some visibility of the assets available to be acquired in the near future? Are these potential acquisitions rental yield accretive?
    b. Can you provide some guidance on the pipeline of assets that will be acquired from the sponsor?
    c. Are the governmental policies in your key markets favorable for your business model? Please narrate with specific explanations.
    d. Are these governmental policies in your key markets feasible for implementation[96]? Please narrate with specific explanations.

First draft detailed questions for the REIT industry – Industrial:

1. Demand side

[96] In other words, I am trying to gauge whether these announced governmental policies are merely hearsays or would eventually be executed.

a. Is your business model highly correlated with consumer spending across the respective geographies?
b. If so, what are the consumption outlooks in these key markets?
c. What are the key sectors underpinnings your tenant mix?
d. To what extent is your business model influenced by the intensity of export and import activities in your key markets? Can you elaborate more on how they work?
e. Are there any structural changes within the local economy of your key markets that are expected to have huge impact on your business model?
f. How does oil price correlate with your business model?
g. Do you keep a close watch on the Purchasing Manager's Index in your key markets? If so, can you briefly discuss how you strategize your three-year plan with the information obtained from the Purchasing Manager's Index?
h. Do you closely monitor the subtle changes in inventory and stock of finished goods statistics across your key markets? How does the information fit into your three-year strategic plan?

2. Supply side
    a. How is the land space dynamics evolving in your key markets? Especially pertaining to changes in occupancy across the various industrial land use sub sectors as well as across other non-industrial land use sectors. Relative to the market, how did your occupancy rates fare?
    b. How has the average tenancy turnover rate changed during the past five years?
    c. Are different industrial land use sectors good substitutes for each other in your key markets?
    a. Are you affected by re-zoning at the country wide level?
    b. Based on existing government blueprint, is there any significant increase in new industrial land space across your key markets?
    c. How do you mitigate all the above potential supply side risks?

2. Asset specific issues
    a. How diversified is your pool of tenant mix?
    b. Are your tenants interdependent to each other to reap the benefits from proximity cluster across your key markets? Please elaborate further.

c. Is facility automation one of your key selling points? Please explain with examples.
d. How are your key assets faring in terms of having access to transportation network? Detailed examples would be great.

3. Opportunities and threats
   a. Do you agree that the industrial REIT sector is relatively more vulnerable to physical asset depreciation compared to other sectors such as office, retail, and hospitality?
   b. How are your key assets coping with asset enhancement?
   c. Are there any major disruptive innovations that are expected to have a huge impact on existing industrial REITs? How do you intend to cope with it?

First draft detailed questions for the REIT industry – Hospitality:

1. Demand side
   a. Do changes in tourist arrival statistic exert strong impact on your business model?
   b. Can you share with me the geographical diversity of your guest pool? Is there strong reliance on guests from a specific country?
   c. On average, how many nights does each guest stay for a trip? For the past five years, how has this trend evolved?
   d. How has the spending power of your guests changed over the past five years?
   e. Has currency fluctuation exerted strong influence on your business revenue?
   f. Are you affected by any new development in geopolitical sensitivities?
   g. Are changes in business spending affecting your business model?
   h. Is there a secular shift in the hiring preferences within the banking and finance industry? If so, how would it affect your business model?
   i. Do you derive a big portion of your guest traffic from MICE events? If so, do you foresee any changes in the demand for MICE events?
   j. Do you have any contingency plans for catastrophic events such as disease outbreak and terrorist attack?

1. Supply side

a. How has the market wide occupancy rate been evolving in your key markets during the past five years? How has your occupancy rate been faring when compared to it?
b. How is the add-on room supply trend in your key markets for the upcoming three years?
c. Is your business model heavily affected by Airbnb? Do you foresee any other disruptive innovations within the hospitality REIT industry?

2. Relevant government blueprints
   a. Are the government in your key markets doing anything to improve their transportation infrastructure?
   b. Are the major tourist hotspots in your key markets undergoing any major physical enhancement?
   c. Are the government in your key markets launching any tourism promotion campaign?

First draft detailed questions for the REIT industry – Retail:

1. Demand side
   a. Do changes in GDP statistics correlate strongly with your top and bottom lines?
   b. Have you experienced a change in consumption sentiments among the mass population in your key markets? Is the shift in consumption sentiments due to real or perceived changes in general wealth?
   c. Is the revenue from your key markets sensitive to changes in tourist arrival numbers?
   d. For the key markets that are relying heavily on tourist traffic; are the sources of tourist arrival well diversified or concentrated among a few locations? If concentrated among a few locations, which are those?
   e. For the key markets that are relying heavily on tourist traffic; is there a subtle shift in spending habit? If so, how do you intend to cope with it?
   f. Is FOREX fluctuation a major concern for your business model? Please elaborate.
   g. Are there any geopolitical sensitivities brewing in the background that are expected to be detrimental for your key markets?

h. Are your key markets sensitive to subtle shifts in the hiring trend within the banking and finance industry?
i. In a bullish residential market, do consumers spend more on discretionary products? Did you encounter the same experience in your key markets?
j. Is there a positive relationship between the level of median income in your key markets and your revenue?
k. Have you experienced changes in consumer spending across your key markets that are the results of changing demographics, educational level and/or technological evolution? How did you cope with them?

2. Supply side
    a. Can I have some sense of the country wide retail net absorption rates for the past five years across your key markets? Relative to the market, how did your occupancy rates fare?
    b. For the next three years, are you expecting significant amount of add-on retail spaces across your key markets? If so, how would you cope with it?
    c. How has the average tenancy turnover rate changed during the past five years?

3. Asset specific
    a. Is the rise of online shopping platform given your business model a run for your money? How has it affected your respective key markets? How do you intend to deal with it?
    b. What are the key surrounding amenities you look for when acquiring a shopping mall?
    c. Do you conduct thematic promotional campaign that cut through all your assets in each key market? Has it been successful?
    d. Can you provide some insights on how you undertake thematic vendor management in your key markets? In other words, how do you optimize your tenant mix?
    e. How do you decide which asset to undergo physical enhancement? What do you look out for during asset physical enhancement?
    f. Can you narrate on the asset enhancement blueprints for the next three years across your key markets?

4. Relevant government blueprints

   a. Are the governments in your key markets doing anything to improve their transportation infrastructure?
   b. Are the major tourist hotspots in your key markets undergoing any major physical enhancement?
   c. Are the governments in your key markets launching any tourism promotion campaign?

First draft detailed questions for the REIT industry – Office:

1. Demand side
   a. Can you provide some details on the geographical zoning of the physical assets across your key markets? Are they concentrated in the CBD, outer CBD, or outlying business park regions?
   b. Are changes in unemployment rate the critical drivers behind office space demand across your key markets? If so, please provide a detailed narration of your worst and best key markets on this aspect.
   c. Are changes in corporate profits outlook exerting a big impact on the business models across your key markets? If so, please provide a detailed narration of your worst and best key markets on this aspect.
   d. Do changes in GDP statistics correlate strongly with your top and bottom lines? Which are the key markets whose occupancy rates have demonstrated exceptional sensitivity towards changes in GDP?

2. Supply side
   a. Can I have some sense of the country wide (and where applicable city wide and district wide as well) office net absorption rates for the past five years across your key markets? Relative to the market, how did your occupancy rates fare?
   b. For the next three years, are you expecting significant amount of add-on retail spaces across your key markets? If so, how would you cope with it?
   c. How has the average tenancy turnover rate changed during the past five years?
   d. Across your key markets, do you see a significant shift of office demand out from CBD to the outlying zone? If so, how have your business model been affected? And what are you going to do about it?

3. Asset specific
    a. What is the average lease maturity? Is it well staggered?
    b. Is your business model under the challenge of disruptive innovations? If so, what are they? And how do you intend to cope with them?
    c. Can you briefly describe your tenant characteristics? Are you collecting premium rental rates from them? If so, why are you able to do so?
    d. Does getting green building certification enhances your ability to collect premium rent? If so, can you narrate with some examples?
    e. When it comes to collecting premium rent rates; what are the other factors that your business model has successfully relied upon?

Also found in Appendix 7b are the various BMC mapped versions – namely detailed, three clusters and grand structure.

The entire first draft questioning framework package was subsequently sent out to the 16 interviewees in preparation for their face-to-face interview.

5.2.2 Analysis and result of expert interview

Individual interview was conducted with the following groups of interviewees:

- First group of respondents, 4 Pax – Corporate insider.
- Second group of respondents, 2 Pax – Financial regulator.
- Third group of respondents, 2 Pax – Equity analyst.
- Fourth group of respondents, 2 Pax – Investor relation.
- Fifth group of respondents, 2 Pax – Fund manager.
- Sixth group of respondents, 2 Pax – Private equity.
- Seventh group of respondents, 2 Pax – IPO prospectus preparer.

There is only one regulator each in Hong Kong and Singapore. As such, it would be impossible for me to protect their anonymity if I were to present the responses in group format. Given that, I have opted to present all information obtained from the 16 interviewees in a masked-out, reshuffled and aggregated format. Protecting the identify of interviewees where appropriate is one of the most important research ethics practices (Kamat 2006).

All interviewees welcomed the idea of having both a concise and detailed version of the question sets. Each of them also provided their feedback on how to reword the question sets to further enhance their clarity. Most of their comments focused around the set of questions catering for the REIT industry in general.

As narrated during the project design section, the output obtained from the first round of email exchanges and/or face-to-face interview was subject to a categorisation exercise with the below structure. The detailed output as archived on Appendix 7c.

First level categorisation:

- Comments pertaining to essential issues:
    - Comprehensiveness - themes and questions that must be added or removed to enhance the comprehensiveness of my questioning framework.
    - Ease of understanding - suggestions to enhance the readability of my questioning framework.
- Comments pertaining to important but not essential issues.

Second level categorisation:

- Comments pertaining to unconventional comments and/or themes.
- Comments that specifically address the appropriateness of the nine business model compartments.
- Themes that were frequently mentioned.

As mentioned before, the raw responses from these 16 respondents were composited, their identities masked out and emailed back to 12 respondents[97] to review before the second round of interview was conducted.

During second round interviews, the interviewees did not make much change to their initial viewpoint. For those who have made changes to their initial comments, the content mainly revolved around CG.

Similar to during the first-round interview, the raw data obtained was subject to a categorisation exercise, and the detailed output as archived on Appendix 7d. Following that, I proceeded to the second stage of data analysis: working on the categorised information to find, interpret and organise overarching ideas and concepts.

[97] *Excluding the four respondents from the regulator and IPO prospectus preparer groupings.*

During this stage, I crosschecked with the literature review to validate the comments provided by the interviewees. For antagonistic feedback that remained unresolved even after validation with the literature review, I turned to 1-on-1 dialogues with corporate insiders for final resolutions.

A summary of the specific outputs as follow:

- Interpretation of feedback obtained from first round interview:

    - Pertaining to the comments on essential issues, most new suggestions revolved around the potential conflict of interests between REIT and its sponsor. This was in-line with that uncovered during the literature review where Nestoras (2007), Pica (2011) and Fung (2014) unanimously indicate that any intricate relationships between REITs and their sponsors required more explanation on how existing CG structure can effectively rectify the conflict of interests inherent within REITs. Three interviewees also pointed out unanimously that good business model revolves around great management: the key always rest with human intention (Olten & Bonn 2013). The interviewees were appreciative of my relentless pursue for pristine clarity pertaining to CG related issues.

    - Operationally over reliant on the REIT manager: five interviewees expressed concerns over the robustness of the REIT structure and its degree of entanglement with the manager. Indeed, the SGP2 saga in Singapore had exposed the practical difficulty of removing an "incompetent" manager in practice, even when a significant portion of the unitholders was supporting the move. Draconian real-life events usually provide valuable insights for understanding how business model can malfunction during extreme times of stress (Marshall & Ross 1990).

    - Information that can be cross compared with other industry peers have been strongly recommended by the interviewees. It was also recommended that industry benchmark figures should be provided side-by-side, and their respective traceable sources as well. The practical usefulness of this aspect is demonstrated by Chen *et al.* (2014) and EY (2016). Examples of such information include:
        - Average rental for each geographical region.

        - Average rental lease expiry profile.

- How the REIT conduct equity financing. There was strong interest among the interviewees to delve deeper into the track record of equity financing, especially pertaining to dilutive rights issue. Also, whether minority unit holders were given the first-right- of-refusal considering the dilutive rights issue (Pica 2011).

- How the REITs conduct debt financing. Interviewees were more attracted by REITs who can gain access to a wider array of debt funding as well as having a debt profile that was more spread out. These observations have been in line with that uncovered from the literature review, as inferred from Ritter (2011), Atchison & Yeung (2014) and Lazard (2016). Some interviewees unanimously highlighted that during the current era of low interest rate regime, REITs might display greater tendency to go extreme with leveraging to improve their yield. Traditionally, this has been a classic leverage trap (Song *et al.* 2015).

- More granular explanation during asset acquisition is highly desirable. Rather than solely comparing the price paid for with third party valuation, REIT management should provide more granular information on how they come to justify the final price paid for as well as providing timely disclosure on the potential areas of conflict. In the long run, a mark-to-market yearly review of the asset value over a longer time horizon would be helpful for investors to judge the business acumen of the REIT management.

- Downplaying the macro-economic factors. The real estate is a relatively cyclical industry where demand and supply fluctuate between excesses and deprivations (Bullen & Crook 2005). Even though macro-economic factors exert strong impact on this industry, they are usually beyond the REIT management's control and forecasting sphere of influence. Five interviewees suggested playing down the focus on macro-economic questions.

- Strong concerns on innovative disruptors. All interviewees expressed concerns on whether the REITs have the capability to handle innovative disruptors such as online shopping and co-workspace. These concerns are not new as have been highlighted by Bienstock *et al.* (2002) and Bullen & Crook (2005) during the literature review.

- Management operational track record during bearish rental market. All interviewees highlighted the importance of sensing out management execution capability through observing how they have maneuvered the company through crises (Phillips & So 2016). Having the management to explain how they did what they have done should generate useful insights. One important aspect of crisis management lies with operational risk mitigation which unfortunately cannot be inferred solely from analysing financial statements. Two interviewees concurred on this and suggested examining what the REIT manager did during bearish rental market. The test of time should automatically weave out the poor managers from the better ones.

- Classic red flags, these included but are not limited to:
    - Post IPO, rate of rental immediately collapsed upon anchor/master lease expiry. There lies the possibility that the rate of rental had been artificially inflated (Chen *et al. 2014*) by the sponsors prior to IPO to capture a better selling price. If the inflated rate of rental has been way above the market price and/or the anchor tenant was the sponsor, the malicious intent of the sponsor is obvious (Briddell & Supple 2011).
    - Sales and lease back attempt by sponsors to cash out on their assets. In practice, the actual intention behind sales-and-lease back activity undertaken by the sponsor at below market rental rates might be questionable.

- Mixed views on:
    - The usefulness of the unique proposition compartment.
    - The benefit from asset and/or geographical diversification. The key would be impinged upon whether the management possessed enough executional quality to handle the more complex portfolio of assets.
    - The importance of changes in interest rate.
    - Mean reversion of financial metrics to long run averages.
    - Usefulness of book value.

        - The importance of examining intrinsic operational issue such as tenant take-up rate, efficacy of marketing channel and quality of property management has been well appreciated among interviewees. At the same time however, they were also concerned on the lack of data as well as insider perspective to undertake any meaningful analysis in these domains.

    - Ability to execute AEI efficiently can have strategic implication in the long run (APREA 2014). AEI tends to be more common and crucial in the hospitality and retail sectors. The need for AEI can also be relative – highly dependent on the state of competition (Lazard Asset Management 2017).

    - Having anchor tenant is not always a rock-solid defense against high tenant turnover. Take for instance: Fraser commercial trust; one of their asset's anchor tenant HP laid off 5,000 staff on a global basis. The spin off impact on Fraser was widely unexpected. This observation had been in line with the conclusion from Briddell & Supple (2011), Goett *et al.* (2016) and Doherty *et al.* (2016) during the literature review.

    - The concise version of my questioning framework will be more users friendly for individuals who are not familiar with the REIT industry. The interviewees demonstrated strong appreciation for my approach of narration – from detailed, to intermediate and finally concise version of the questioning. Opening questions should be direct and to the point. Having multiple versions should satisfy the varying needs of different end users (Alexander 2001).

    - Validating the final version with industry experts provided extra layer of confidence among the interviewees.

    - The one diagram BMC enables end users to obtain a holistic guide at a quick glance, helps them to focus their attention on the relevant key driving factors during industry analysis as well as preventing them from incurring unduly weightage on irrelevant factors. On top of that, the interviewees also found BMC to be adept at minimising analytical biases.

- Two interviewees have recognised that the detailed version of my questioning framework has been particularly suitable for desktop research. Indeed, end users of my questioning framework will be encouraged to exhaust their information extraction through public channels, left no stone unturned before turning to the management with questions that cannot be easily answered. This should optimise the quality of their interaction time with the REIT management.

- The SGP2 saga was quoted by all the interviewees.

- Interviewees recognised the scope limitation of my research. In practice, it would not be possible to cover the entire spectrum of REIT sub-sectors in a single piece of doctoral research. They were supportive for the scope of my research to be constrained by my available access to expert human resources. This conclusion is in line with the norms of interpretivist research (Kumar 2011).

- Direct compliments for my questioning framework:
    - A good effort and quite refreshing for the research universe. Look forward to seeing this style of research being adopted by other researchers across other industry sectors.
    - Questioning framework will help the public to get a better understanding of investment choices.
    - Framework quite ideal for end users to start a debate during their desktop research, during dialogues with management in AGMs as well as during financial modeling.
    - At the very minimum, get investors to start asking the right questions.
    - Served as a matrix for investors during fundamental analysis.
    - Can never obtain a perfect questioning framework. But this is nonetheless a good start for market participants to rely upon and for future researchers to benchmark with.

- Interpretation of feedback obtained from second round interview:

    - Once again, there was strong focus on CG related issues.

        - Alignment of interest between unitholders and REIT manager was the top concern among interviewees.
        - Sponsor relationship was repeatedly mentioned.
        - Also, creative ways of restructuring management fees to minimise agency cost was commonly advocated.
    - Track records during crisis remained the preferred way of assessing management quality.
    - Forecasting the impact from macro event was deemed impossible and therefore not very relevant.
    - BMC headings and subheadings were not intuitive. Interviewees also suggest stating up-front what each compartment of the BMC attempts to achieve and how each compartment adds up to provide a holistic picture of the business model. With that, it is expected that the associated questions will build up more naturally.
    - Interviewees felt my questioning framework already possessed sufficient depth. Further effort however can be deployed to make it more user friendly for end users.

- Insights obtained from comparing their similarities and differences:

    - CG as expected turned out to be the top agenda for all interviewees. Even though interviewees appreciated that my questioning framework has already placed strong emphasis on examining the CG framework, most of them still reinforced the importance of this aspect. There was empirical evidence pointing towards the positive correlation between good CG practice and firm value. Baeur *et al.* (2009) for instance concludes that for firms with low dividend payout ratio, their value has been positively related to the quality of their CG.

      Such positive correlation however does not always present themselves in all measures of firm value. Lecomte & Ooi (2010) established a CG index that enabled the ranking of REITs based on their CG practices. Upon deployment, it was found that there was significant positive correlation between good CG practices and stock price performance. However, the same cannot be said for good CG practices with accounting profit. Lecomte & Ooi (2010) could not find any positive correlation between the two measures.

In layman terms, this implies that while listed REITs in Singapore with good CG practices tend to perform better in the equity market, they may or may not be generating more accounting profit.

The frequency in which CG has been mentioned during the literature review largely coincided with that of the responses received during primary research. The same can also be said for my 20 years of professional experience. The importance of examining CG for a complete business model analysis therefore cannot be over emphasised.

- Interviewees suggested downplaying the questions on aspects that cannot be easily inferred from public information. These aspects include operation and macro-economic factors that are deemed to be important but at the same time hard for outsiders to gain inference through public information. The interviewees also suggested allocating more questions to granular statistics that can be objectively benchmarked with industry average. Such preferences are understandable given that additional statistics has always been useful on a relative basis (Fung 2014).

- There was preference for questions that explore management track record during crises handling. I interpret this as a qualitative manner of stress testing. In face of inadequate or conclusive evidence to objectively assess the executional competency of management, the best reassurance for investors naturally rested with knowing that the REIT had safely sailed through rough waters before.

- The headings and subheadings of BMC have not been appropriate for my context. While all interviewees appreciated the multiple versions of my BMC, four of them have expressed concerns on the ambiguity of the headings and subheadings. For end users who are not familiar with the BMC conceptual framework, there might be confusions. Instead of rigidly mapping my questioning framework onto the BMC structure, it may be more meaningful to modify the BMC structure (Coes 2014) to best fit the inherent logic underpinning the REIT business model.

- After the second-round interview, participants have grown more comfortable with the comprehensiveness aspect of my questioning framework. The focus henceforth will be on further optimising the user friendliness of the questioning framework for retail investors.

- Specific steps taken to assimilate the insights obtained into my questioning framework:

  - Concise questions add-on:
    - What are the likely macro-economic scenarios that will affect your operation and its effect on the total returns of the REIT?
    - What are the major head winds faced by the REIT?
    - What are the core competencies?
    - Can the management share some unique stories pertaining to the REIT business model?
    - If there is only 15 minutes, what would the management advise investors to look at to gain a holistic snapshot of your business model?

  - Sector specific – Industrial question add-on:
    - Are there any properties that can only be rented out for specific specifications/tenants?
    - What is the potential of your properties to maximise their plot ratio?
    - What is the redevelopment potential of the land and properties the REIT own?

  - Sector specific - Retail question add-on:
    - What are the average sales to rent ratio of the REIT's tenants? How has this trend evolved during the past five years?
    - Challenges from online disruptors, how is the management coping with it?

  - Physical asset related question add-on:
    - Is there any uniqueness about the land deed or land lease that investors should take note?

- Dividend related question add-on:
  - Can you provide a history of your AFFO versus the dividend payout?
  - Does the management foresee any changes to DPU to suit their operating needs?
  - Does the REIT adopt any special dividend policy when disposing real asset?

- Stronger focus to clarify the intricate relationship between the REIT and its sponsor question add-on:
  - What is the percentage of rental income deemed to the sponsor (inclusive of management fees)?
  - What is the percentage ownership of the REIT held by the sponsor?
  - What is the percentage ownership of the REIT manager held by the sponsor[98]?

- Revamp of the unique proposition compartment question add-on:
  - How does the management stay on top of their game; especially with regards to seeking out yield accretive acquisitions?

- Asset acquisition and disposal related question add-on:
  - Is there a high-water mark scheme or claw back clause for REIT manager's incentive for yield erosive investment? If so, what are the key criteria that must be fulfilled?
  - Is the first-right-of-refusal given to the REIT when the sponsor has asset to dispose?
  - Where appropriate, question the management with the following set of specifics:
    - Why was the asset bought? Can you explain step-by-step how it is going to be yield accretive over the long run?
    - What are the risks involved?
    - Why have you chosen this new geographical region to invest in?

[98] *By definition, sponsor is the original owner of those real assets that had been injected into the REIT. In APAC, it is very common for the sponsor to retain a controlling stake of the newly created REIT structure.*

    - For REIT that diversify beyond their mandate/out of their specialisation – What is the reason? What makes you believe that you might have a competitive advantage to undertake such unconventional execution?
    - During low rental rate environment, did the management undertake strategic disposal of assets as well as capital reduction to generate value for unitholders?
  - Amend the tone of questions under this category to be less interrogative.

- CG related question add-on:
  - Is there a formal process for the removal of an incompetent manager? If so, what are the key criteria that must be fulfilled?
  - How is the investment committee selected?
  - What are the measures put in place to prevent the REIT manager from amassing the AUM for their own benefit?

- Manager compensation related question add-on:
  - Is the REIT manager getting units in lieu of cash for their management/incentive fees? How is the balance between cash and unit reward arrived at?
  - What is the management fee to AUM ratio? How has this ratio evolved over the years?
  - Can you provide a year-by-year history of the amount of management fees paid in units, versus total management fees?
  - Is the manager's performance incentive in-line with unitholder's interest and is it sustainable going forward?

- Debt financing related question add-on:
  - Is the REIT able to tap into multiple sources of funding? How many principal banking relationships do you rely on for debt financing?
  - How has the management performed in the past with regards to capital raising?
  - Pertaining to leverage, how much room for maneuver does the REIT still have in place?

    - During times of distress, is the sponsor open to providing subsidised loans or guarantees for the REIT's debts?
    - What is the long-term comfortable gearing ratio for management? How was this number derived?

- Equity financing related question add-on:
    - Given that a rights issue is always undertaken at a discount to market value, how did management safeguard the interest of existing unitholders?
    - Are the unitholders given first-right-of refusal during rights issue?
    - What are the factors that influence the size of price discount given to rights issue for private and public placement?

- Operation related question add-on:
    - What selection criteria does the management use when deciding on the property management vendor?
    - The process flow for AEI. When and how would the REIT embark on AEI?
    - What are the options available to management for further yield optimisation through asset management?

- Strategy related question add-on:
    - What are the most pressing current challenges faced by the REIT and how do the management intend to deal with these headwinds?
    - What is the REIT's growth strategy, is it organically dominant or inorganically dominant? What is the rationale behind?

- Track records and crisis case studies related question add-on:
    - How has the management reacted during financing crises?
    - How pervasive is non-preemptive rights issues during financing crises?
    - How have historical asset acquisitions performed over time? Have mark-to-mark revaluation led to unrealised losses? Over the five-year period after an acquisition, have the asset been yield accretive or erosive?
- Comparable statistics related question add-on:

    - Is the average rental for your key markets above or below market level? What are the reasons for deviation (if any)?
    - If the average rental is higher than industry average, how do you intend to sustain it going forward?
    - What is the average asset lease expiry profile compared to that of general market in each geography?

- Refined the questions pertaining to macro-economic factors to make them more relevant from end users' perspective. Included a question on understanding the vibrancy of the local environment.

- Broad headings and sub-headings of BMC model were revamped accordingly. BMC labels that needed to be rephrased:
    - Infrastructure.
    - Dealings with key partners.

- BMC diagrammatic structure and narration were enhanced to optimise:
    - Attention seeking effect.
    - Ease of information extraction: end users can zoom right into the sub domains relevant for them.
    - Processing time: reduce the time required for end users to comprehend the relevant content.
    - Technical jargon: replace technical terms with layman wordings.

- More intensive analysis of the SGP2 case study during the in-sample case study validation stage.

- Explained to my reader at the onset and kept reminding them at appropriate juncture that my questioning framework can serve the following multiple purposes:
    - A lighthouse for investors during desktop research.
    - A manual of questions for investors to pick and choose from when interacting with management during AGMs and EGMs.
    - A benchmark for investor relations and corporate insiders to better prepare their interactions with investors and analysts.

- Strategic advice from the interviewees to be kept in mind during framework refinement:
    - Every property is different and even more so for REIT. It is tough to formulate a panacea-like questioning framework.
    - An industry itself is too comprehensive to be covered within a simple questioning framework. And it is even more challenging for REIT which in essence is not an industry but rather more like an asset class in multiple industries. As such, even though I aim for optimal comprehensiveness within each subsector, I must also be cognizant that it is unlikely to cover every key factor; and more so with the passage of time where the weightage of each driving factor changes. A best effort approach is already highly admirable.
    - The framework should be used to guide, sustain, and adhere to a logical debate during industry analysis.
    - The framework should be structured in such a way that if management cannot provide logical answers to any of the questions, investors should just walk away.

Most of the above changes were subsequently incorporated into the revamped version of the questioning framework, now labelled as the second draft questioning framework, as archived on Appendix 8. For those comments that were not directly related to the questioning framework's core content, they would be assimilated during the BMC mapping stage, validation stage, conclusion, or recommendation stage as well as during the drafting of the background and introduction chapters.

5.2.3 Analysis and result of focus group study

Summary of the comments extracted from the two focus study sessions:

- A questioning framework that is too complex for direct usage is not useful even if it is appropriately comprehensive.
- The detailed framework is too cumbersome for beginner retail investors.
- Most preferred the following more direct questions:
    - **Tell me more about the current landscape of REITs.**
    - **What are the big risk factors one should look out for?**
    - **What are the big success factors one should look out for?**
    - **Can you tell me some unique stories?**
    - **Tell me about some sexy encounters during your asset acquisitions?**
    - **If I've got only 15 mins to understand your business model, what are the key things one should look out for?**
- **Questions that can elicit direct answers from management are preferred.**
- **How to place the appropriate weightage on each question?**
- **My questioning framework has been useful for dispelling myths accumulated from mass media.**
- **What would be the next logical step an investor should pursue after utilising my questioning framework?**
- **Even if I can understand the business model in full, how can I apply this understanding to decide whether to invest/divest in the target REIT?**
- **Put some focus on questions that drill into information that is not typically found on annual reports.**

Most of these concerns have been addressed during the second draft of my questioning framework. For the rest of those concerns that were not addressed, additional amendments have been made to the framework.

In addition, some of the wording in the framework was finetuned to enhance comprehension among retail investors. The new format, now labelled as the third draft questioning framework was created, as archived on Appendix 9.

5.3 Analysis and result of stage 3 – Conceptual framework mapping

The industry general section of the detail question set was mapped onto a modified BMC framework to provide another dimension for end users to visualise when using my questioning framework. The original BMC mapping framework has nine compartments, as illustrated below.

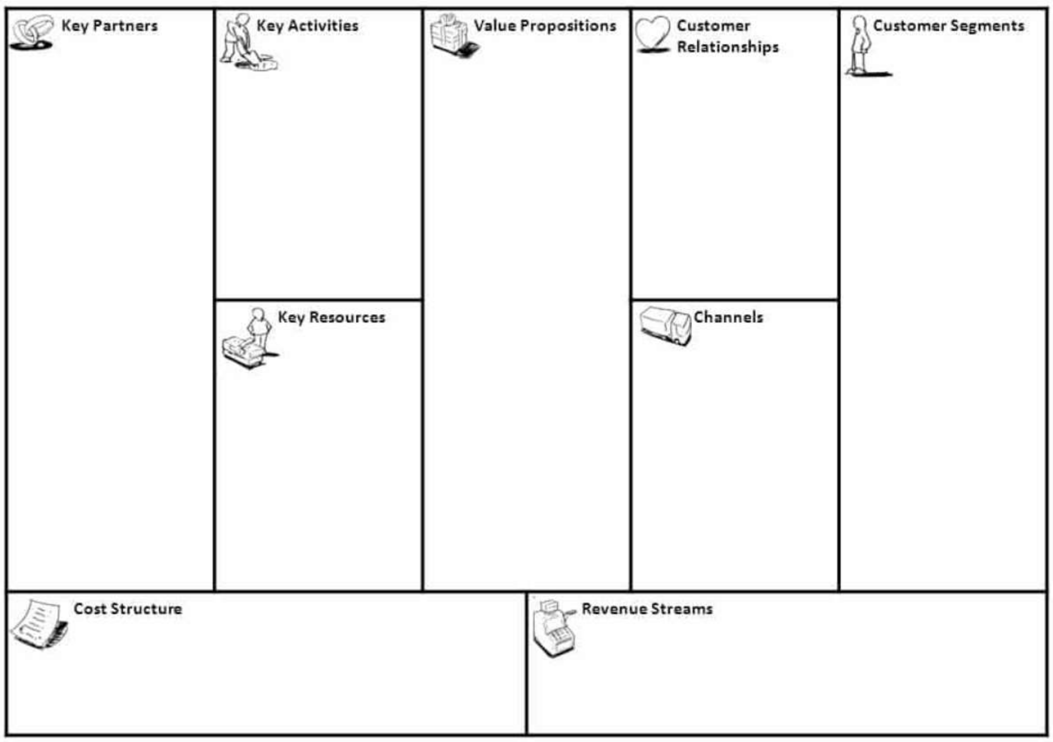

Figure 8: Pictorial view of Business Model Canvas (BMC).

After multiple rounds of interactions with my participants, I simplified it into one central hub, two segments and seven compartments while optimising the intuitive appeal. The broad headings of the original BMC model have been modified as follow.

<u>Segment 1 - Internal operating dynamics</u>: four compartments of questions which examine the internal operations of a REIT across four different dimensions, namely funding, accounting figures, internal stakeholder & process flow, and physical asset.

- **Funding related**: the questions in this compartment explore how the REIT funds its acquisition as well as examine its ability to continue doing so in the future. It also looks at whether the rights of minority investor are safeguarded during fund raising exercise.

- **Accounting figures related**: the questions here look at industry specific accounting figures that paint a holistic picture of how things are moving along within the business model. This is achieved through focusing on two important aspects – usage of cash and dividend payout behavior.

- **Internal stakeholder & process flow related**: the majority of the questions under this compartment looks at how the CG structure minimises malicious misbehavior of internal stakeholders. Additionally, this compartment also attempts to shed some light on how internal core processes are executed to enable my end users to "smell out" any irregularities.

- **Physical asset related**: the questions in this compartment looks at asset specific related issues, including lease renewal, AEI, yield management, property acquisition track record and rental lease expiry profile.

<u>Segment 2 - Environmental variables</u>: two compartments of question which focus on external environment attributes and benchmarks. Together, they made up the boundary which house the internal operating dynamics of the REIT business model. In other words, the previous four compartments enable users to gain a solid understanding of a REIT's internal working dynamics. Here, the two compartments will put that solid understanding up for validation to examine how the business model has performed against other competitors in the wider environment.

- **External factors related**: questions in this compartment explore the relevant aspects of the macro-economics, demographics and regulatory environments that exert direct impact on the REIT business model.

- **Peer comparable metrics related**: any standalone analysis is pale until compared with the relevant benchmarks. This is where questions from this compartment come into play. Conventional real estate statistics such as rental rate, occupancy rate, average asset lease expiry and the management fees per unit of AUM are compared with the respective market averages.

Central hub - Management strategy and outlook: up till this juncture, my users should have already obtained an in-depth appreciation of both the internal operating dynamics and the relevant environmental variables. With that, they should proceed to the questions in this compartment to focus on deciphering how management form up their strategy and execute the associated tactical moves. The relationships between all compartment are connected by the "Management strategy and outlook" compartment which occupies a central/hub position as illustrated below.

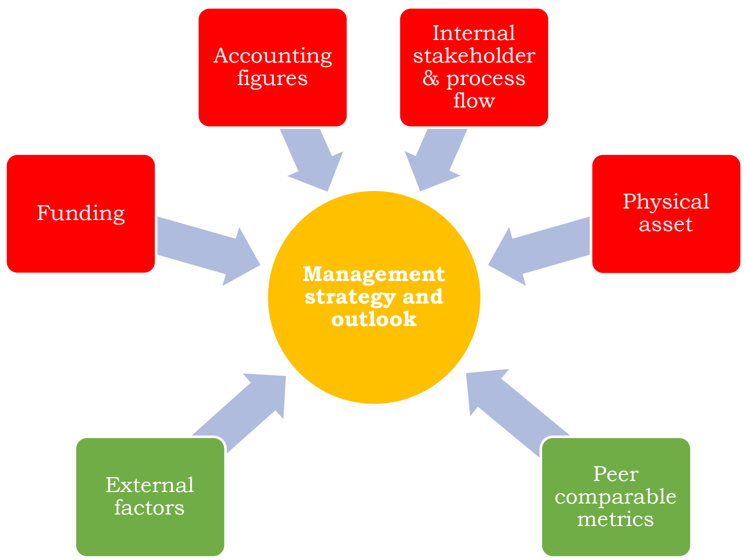

Figure 9: Pictorial view of all seven compartments[99]

During this round of mapping, the sub sector sections of the detailed question set was not mapped onto the BMC. The rationale as follow. First, the original BMC grand structure framework[100] had been too technical, abstract, and unintuitive for retail investors. There was therefore a need to revamp the overall architecture. By excluding the questions from the various sub-sector, I was enriched with more room to focus my narration on the general attributes of the REIT industry. Second, the number of questions dedicated for each sub sector has not been overwhelming. In its current form, it has already been optimised for end user consumption.

Two versions of BMC mapping were produced, a detailed classification version and a pictorially condensed version. These newly mapped versions have been archived on Appendix 10.

---

[99] *The upper four compartments in red are categorised under the "Internal operational dynamics" segment while the lower two compartments in green are categorised under the "Environmental variables" segment.*
[100] *The original BMC grand structure framework is archived on Appendix 7b.*

5.4 Analysis and result of stage 4 – Research output validation

All outputs were subject to validation with in-sample case studies, out-of-sample case studies and a subset of the pool of expert interviewees.

5.4.1 Analysis and result of validation with in-sample case studies

From the case studies of:

HK2

There was a series of **connected party transaction** issues at hand. My questioning framework had been well positioned to address the associated issues:

- Rationale behind these connected party transactions?
- How were the third-party valuators selected?
- On what basis were they selected?
- Track records of the connected party asset acquisitions? Have they been yield accretive thus far?

The double-edged sword nature[101] of **tenant mix diversity** would have been adequately addressed by the anchor tenant related questions in my framework as well.

AEI turned out to be one of the key success drivers for HK2. This again had been adequately taken care of by questions pertaining to AEI under the "Physical asset related" compartment.

Seismic shifts in Chinese macro-economic conditions were attributed as the mega trend underpinning the demand for retail REIT. This aspect had been well taken care of by questions under the "External factors related" compartment.

The influence of disruptive innovation on consumer shopping habit had been acknowledged as the major game changer in the retail REIT sector. The exact degree of this disruptive influence would have been properly accounted for by the related set of questions in my framework. These questions seek to understand how the rise of online shopping platform is affecting REIT's business model across the key markets and how management intends to deal with it.

[101] *The presence of an anchor tenant often equates to stability in rental income but at the same time also implies that a bulk of the REIT rental income is heavily reliant on the anchor tenant relative to that of a diversified tenancy mix.*

Fortune REIT

The series of **yield accretive property acquisitions** carried out by Fortune REIT would have been thoroughly scrutinised by users of my framework. Granular details such as the selection process of 3rd party valuator, economic rationale for undertaking the acquisition and any embedded conflict-of-interest potential inherent within these deals would have been probed by my questioning framework accordingly.

Rights issue was utilised during property acquisitions. Users of my questioning framework would have spotted this and inquired deeper into the appropriateness of the funding. This would have aided my users to make well informed decision on whether to subscribe to their allocated rights.

Also, since **DPU has remained on a consistent uptrend** post the right issue, that would have been interpreted as convincing signals for investors pertaining to the REIT management's operational acumen.

The grand rebranding scheme undertaken by the REIT manager would have been captured by the AEI related questions in my framework. Users of my framework would most likely have appreciated this potential selling point and make the appropriate investment decision.

The case study highlighted that **debt financing** undertaken by Fortune REIT had occurred at an interest rate that was below industry average. My questioning framework would have successfully sought out this piece of information through the question that compares the average cost of debt financing with that of industry average.

The smoke-free **ESG promotional campaign** seemed to have successfully contributed to the healthy crowd flow and associated robust tenancy among Fortune REIT's flagship shopping malls. Questions pertaining to the importance of retail REITs to undertake thematic promotional campaign would have guided my end users to intensively embark along this track of analysis.

Link REIT

Link REIT undertook a **series of asset acquisitions with proximity to subway stations** in HK. End users of my questioning framework would have spotted this phenomenon and proceeded to question the multiple logical chains to triangulate whether these asset acquisitions have indeed been yield accretive.

At the same time, **the various disposal of assets at above appraised value** should have alerted my readers to the business acumen of Link REIT. But before they can be convinced of this direct causality relationship, they would have utilised various questions in my framework to ascertain whether the 3rd party valuation processes have been robust and sought out reasons why the counterparties were willing to offload these assets at such attractive pricings.

Link REIT also went on to acquire **huge amount of overseas assets, and most of them in non-retail sector.** This act alone would have triggered the alarm bell for readers of my framework. My readers would have proactively utilised the respective questions in my framework to seek Link REIT management for their rationales in pursuing the asset diversification. This act should trigger the management to reply with the three different explanations as narrated in the case study during AGMs or EGMs.

On an ex-post basis, **NAV has always improved post asset acquisition** and disposal, which provided clues to good business acumen of REIT manager during asset acquisition and disposal. As always, users of my framework would have analysed more intensively to probe the sustainability of the NAV so as to ensure the figures were not inflated through asking the respective questions.

Finally, Link REIT has been able to undertake **debt financing through issuing green bond at an extremely low interest rate**. This historically low interest rate in HK corporate history has come with very high credit rating of A2 and A from two independent rating agencies. Readers of my framework would have interpreted them as relative strength in financing.

Finally, for more discerning readers, they would most probably look for more explanations from the REIT manager as to **why the investors of the green bond issue have been so "generous" with Link REIT?**

<u>SGP2 REIT</u>

At the outset, SGP2 has been a captive REIT with **significant relationship between the sponsor and the REIT manager**, with the former controlling 51 percent of the latter. An investor utilising my questioning framework to comb through SGP2's IPO prospectus would have uncovered these contentious issues.

Again, right at the beginning, a major risk factor in the form of **overreliance on anchored tenants** would have been uncovered by my readers if they have analysed SGP2 using those questions under the occupancy turnover and anchor tenant management sections of my questioning framework.

Despite having a long lease asset, SGP2 **opted to sell it at a loss on the books**. The reasons stated were hardly convincing as well. Questions within my framework would have assisted investors to seek for more granular information on how this disposal deal was executed and challenged the management for more convincing reasons behind the act.

There were connected **party transactions involving the sponsor that have directly contributed to lower DPU.** Those questions in my framework that specifically addressed the sponsor's tenancy relationship with the REIT would have captured this phenomenon and rung an alarm bell.

SGP2's Manager had a dismal **operational track record with another REIT.** This would have been captured if my framework had been used by my readers through the questions embedded under the CG section which specifically call for the operational track records of the REIT manager.

On hindsight, most of the problematic issues within the in-sample case studies, if put under the scrutiny of my questioning framework would have been singled out as red flags. At the very minimum, it would have prompted my readers to seek more granular clarifications from the management.

5.4.2 Analysis and result of validation with out-of-sample case studies

Three out-of-sample case studies were utilised, the details for each case as archived on Appendix 11. The insights from validation with these out-of-sample case studies as follow.

From case studies of:

<u>CIT and AA REIT</u>:

MacArthur Cook Industrial REIT's (MI REIT) funding essentially dried up with its gearing ratio escalated well beyond statutory limit. The environment during this case study was the 2008 global financial crisis (GFC). On hindsight, end users of my questioning framework would have noticed the **near statutory limit of MI REIT months before GFC.** With that, they would have paid closer attention to any factors that might trigger draconian changes in gearing.

However, most other REITs during that time era were maximising their leverage capacity till statutory limit to take **full advantage of the real estate**

bull market and the prevalent low cost of debt. As such, MI REIT might not have stood out among investors as an exceptionally risky preposition. More cautious investors might have singled out the small capitalisation base of MI REIT as a scale risk factor though.

The eventual **recapitalisation plan heavily diluted all existing unitholders.** This is an embedded risk in all REIT structures. Investors can only infer from MI REIT's recapitalisation track records. Beyond that, there was nothing much investor can do to preempt the draconian scenario depicted in the case study.

Fortune REIT

This case study involved **the whitewash waiver clause, a unique legal structure embedded within the company laws of Singapore**. Upon successfully activated, it would provide flexibility for a majority shareholder to avoid privatisation even if the legal threshold percentage of share ownership is exceeded. This piece of information would not have been uncovered by the end users of my questioning framework.

There is a chance that there might have been a handful of other **unique legal structures embedded within various local jurisdictions** that investors of REIT would have benefited if they have prior knowledge of them. This aspect however is not specific to the REIT industry. A thorough review along this aspect is therefore beyond the scope of my research.

On the other hand, however, having the same **controlling entity behind both the sponsor and manager** would have sounded the alarm bell of my readers. At the minimum, it would have prompted my readers to examine the track records of Cheung Kong Holdings (CKH). Through this channel of probing, readers of my framework would have uncovered similar acts by CKH on other REITs.

In addition, there were three incentive structures cited by the case study that pointed towards **potential misalignment of interest** between the REIT manager and the unitholders. These three incentive features would have been uncovered by my readers who used the respective questions under the CG section of my framework.

Cache Logistics Trust

This was a classic case of **rental dispute** among multiple stakeholders involving a listed REIT. The affected **five years leasing agreement was signed before IPO.** Considering that, potential investors should have taken note of its existence as per directed by the anchor tenant related questions in my framework.

I cannot attest with absolutely certainty that all end users of my framework can predict the legal dispute with crystal ball clarity though. At the bare minimum, the **complex relationship between the REIT's sponsor, manager and master lease tenant** would have been uncovered by users of my questioning framework.

That should have rung a bell for investors to ask more questions. After all, the presence of an **anchor tenant means rental concentration risk.** Upon lease expiry, there lies the possibility of zero rental revenue during the transition period and negative rental reversion shall the rental lease be renewed on less favorable terms.

The **out-of-sample validation** once again confirmed the validity and robustness of my questioning framework in capturing the various influential attributes of a REIT business model. Next, we proceed to validation with the three expert interviewees.

5.4.3 Analysis and result of validation with expert interviewees

The specific comments from the interviews were put up in their exact wordings as below.

By first interviewee:

- Questioning framework is certainly useful during 1-on-1 meetings with REITs' management.
- An appropriate guide for investors to ask tough but fair questions. This is important as it prevents listed companies from feeding investors with prepared answers during AGMs.
- The framework has been successfully structured to be free from technical jargon without compromising quality and content relevance.
- The segregation of questions for both the general REIT industry as well as for the specific sub sectors are well paced.

- As such, it should hold strong appeal among retail investors.
- There are standard questions that dive directly into business model sustainability. These questions provide indirect insights on the degree of management's readiness in dealing with unforeseen circumstances.
- The framework is already immensely helpful for the layman investors. There is obvious expectation for end users to follow up with adequate homework to make sense of the answer to these questions. With that, the investors would be better positioned to determine the impact and relevance to their investment mandate.
- One characteristic I particularly like with the questioning framework is that the sequence in which questions would be asked will vary according to different answers. In this way, one question asked would naturally lead to few other case-specific relevant questions that were not captured in the original framework.

By second interviewee:

- I utilised the framework from both the perspectives of a retail investor as well as an asset manager.
- **From the perspective of a retail investor** – one who has access only to public information:
    - The first port of call would be the middle bubble – "Management Strategy and Outlook".
    - A specific question that most retail investors would ask is – the properties are rented out to who? This question is not openly being addressed at the onset of the questioning framework.
    - During an insightful dialogue however, questions pertaining to growth and other pressing issues would have naturally led towards the specific questions that would demystify the identity of the tenants.
    - Also, the importance of this question might have been specific for Ascott Residence Trust (ART). For other hospitality REITs, the tenants are fairly obvious. Given the broad and guideline nature of the questioning framework, it is reasonable for this question to be omitted.
    - Users leveraging on the questioning framework should be able to tweak it to their specific circumstances.
    - Another metric that is worth digging further is the change in client turnover over time, particularly relevant for the hospitality sector.

- Moving away from the hospitality sector and back to the REIT industry in general – DPU growth and stability would be the two prime aspects that most retail investors would examine in detail. And with it, the associated questions that address these two aspects.
  - The specific questions under "Management Strategy and Outlook" have adequately addressed this aspect.
  - Questions pertaining to the impact of US Federal interest rate hikes on DPU stability are well covered as well.
  - Following this series of questions, the dialogue with management would have naturally led to the discussion of the management's long-term strategy in our rather volatile global environment.
  - That is of prime importance to a retail investor like me who is on the lookout for stable recurring income.
  - It also provides some sense of how the management would respond to impending challenges.
  - As a retail investor, I have limited resources and time to dig into technical stuffs. As such, it makes more sense for me to piggyback on reputable "big boys" such as sovereign wealth funds and Blackrock to help safeguard the CG structure of the REIT. Therefore, detail information pertaining to key institutional shareholders would have been very useful for me.
- **From the perspective of an asset manager** – one who has a much wider multitude of resources:
  - The questioning framework is very well suited for fund managers to undertake fundamental analysis systematically.
  - As a fund manager, I dig intensively into the characteristics of tenant as per the retail investor. However, instead of asking this question directly, I would have probed the reliability of it via several indirect questions embedded within the concise question set under the hospitality subsector.
  - Of particular importance is the question on how the management intent to deal with an evolving technological environment. For me, any management that can't answer this convincingly would imply – it is time for me to move on to another stock.
  - Following that, I would move on to the "Peer comparable Metrics". Leveraging on these questions, I have broadened the comparison to beyond the REIT sector to examine how the target REIT compare with other stable yield plays – such as telecoms and utilities.

- Obviously, any information that can be extracted from public domains should remain as desktop research. The dialogue session with management should be reserved for information that cannot be obtained publicly. And this is where your questioning framework has come in very handy.
    - It is highly commendable that your questioning has attempted to incorporate the ESG aspect of the business. My suggestion would be to go a step further – asking questions that would reveal management's character and prevailing organisational culture.
    - As a fund manager, we look in-depth into the questions embedded within the "Physical asset", "Funding related", "Internal stakeholders" and "External factors" clusters.
    - A bulk of the answers to these questions are contained in management quarterly discussion. For the rest of it, your questioning framework would have adequately alerted the users to seek out other informational sources.
    - Your framework also naturally led me to become more cognizant of the peer metrics, leasehold expiry and funding issues.
    - Finally, from leveraging off the cluster of questions on CG within your framework, I was able to gain deeper appreciation of the respective details to look out for when examining overseas real estate portfolio.
- **Overall comments**
    - Your framework is indeed well structured and easy to use.
    - Most importantly, it is comprehensive and address any blind spot an investor may encounter. This would be directly achieved through the questions being asked or indirectly achieved through the questions being led to.
    - I found my flow of thought when analysing the hospitality industry to be in line with the fundamental analysis framework I typically use.
    - For retail investors however, they might not have much quality Q&A time with management. As such, it might be good to pull out key questions and rank them. In other words, if you only get the opportunity to ask 3 questions, which three would that be?

By third interviewee:

- I am a good representation of a candidate who can be considered as an educated retail investor for public equities although my main experience is in private equity.

- I like how your framework guides an investor towards what I have always felt was the biggest differentiation factor for any type of investment and that is the management of the business: How they are to identify themselves in the business and how they create value by solving problems which arise from their industry.
- If an individual does not have any idea of where to start, they can simply go into your carefully broken-down details and deal with all the queries highlighted.
- The two REITs being chosen are both commercial building focused – Maple tree Commercial Trust and Suntec REIT, so the key tenant would tend to be long term. Throughout my analysis, the factors being considered in your framework are able to highlight the respective areas of concern.
- REITs are a more specialised form of asset class. As such, during business model analysis, the typical retail investor may feel lost or overwhelmed initially.
- Your framework has outlined the key areas of how REITs operate, and they do intelligently inspire an educated individual to more possible questions. Take for example
    - "Is the REIT captive?" will assist the investor to understand the key customers for a REIT [Predominantly tenants but even other side businesses such as events can be factored in].
    - Take Suntec REIT as an example. It has a huge event center with no real competitor in the area and this can be factored into the understanding of the REIT's unique value. If there is a huge confidence for events to be held in Singapore, this can be taken into consideration.
    - In addition, questions such as "Debt profile" and "Sources of debt funding" will encourage an investor to understand more about how the funds being raised are then applied for returns and expenses.
- In all, plenty of information can be gleamed from utilising your framework during my analytical work.
- This framework is comprehensive as it stands. To further enhance it, perhaps more sub sector specific questions can be generated with more in-depth interviews with the operational experts in the respective fields.

All the above insights were taken into consideration and adopted to amend the questioning framework accordingly. The final format was labelled as the validated questioning framework and archived on Appendix 12.

5.5 Chapter summary

<u>Analysis and result of stage 1</u>:

Desktop research.

Through selecting the best and worst performers on Hong Kong Exchange and Singapore Exchange, four available case studies were selected. They are respectively **HK2**, **Fortune REIT**, **Link REIT** and **SGP2**.

From **HK2** case study, it was illustrated that connected party transactions when properly carried out can result in mutual benefits for both buyers and sellers. The abundance of such transactions may not always be a CG alarm bell. In addition, the positive impact from asset enhancement and the disruptive impact from online shopping platform have been in line with the literature review. Finally, the double-edged sword of having in place anchor tenants was quite counter-intuitive to the conventional literature.

Through the **Fortune REIT** case study, the important role of business acumen on yield improvement through asset acquisitions was clearly demonstrated. The case study also illustrated the importance of pro-active mall management for the retail REIT sub sector. For Fortune REIT, their stop smoking ESG campaign, asset enhancement initiative and rebranding exercise had paid off – in the form of improved crowd flow, greener mass media image and most importantly, higher rental yield. Finally, all the above could not have occurred without the availability of a low-cost banking facility.

From the **Link REIT** case study, the important role of business acumen pertaining to asset acquisitions and disposals was clearly demonstrated. Objective assessments included improvement to yield distribution, positive NAV growth and profitable asset disposals. This was in line with what have been highlighted by DeNicolo & Herbert (2017) during the literature review. Finally, as per the Fortune REIT case study, Link REIT's ability to raise a 10-year bullet maturity green bond at historically low interest rate for corporates in Hong Kong demonstrated the solid confidence that bond investors had for them. Once again, this was in line with what was uncovered during the literature review where Pefindo (2016) has stated that the ability to secure funding at low cost has been pertinent for REIT business model.

The **SGP2** case study was a vivid demonstration of how things could go wrong when management lacked operational capability during difficult market environments. It was also a classic illustration of how difficult it was in practice for minority investors to safeguard their interest when faced with an incompetent management. All legal procedures were followed throughout during the asset disposal, during the EGMs to oust the manager as well as during the re-examination of the valuators. Yet, under the veto vote of the vested sponsor and other institutional shareholders, nothing changed. In hind sights, vested interests aside, both sponsor and other institutional shareholders did have some legitimate reasons to oppose motion to remove the manager. These reasons included bank loan covenant triggers and difficulty in finding a suitable replacement at short notice. Nevertheless, this case study served to confirm what the literature review has highlighted – having in place a strong CG structure and management that walked the talk are paramount.

Through comparing the insights obtained from these four case studies with the technical content uncovered during the literature review, the following categories of pilot key factors for the REIT in general were derived (For detailed narrative of the specific key pilot factors, please refer to Appendix 7ai):

- Relevant macroeconomics statistics
- Demographics changes
- Short term demand and supply dynamics
- Asset base
- Operational efficiency and efficacy
- Physical asset attributes
- Financial metrics
- CG issues
- Opportunities and threats

Similarly, multiple categories of key pilot factors for the industrial, hospitality, retail and office sub sectors were also derived (For detailed narrative of the specific key pilot factors, please refer to Appendix 7ai).

From the associated key pilot factors, I distilled out a list of questions for pilot interviewing purpose, as archived on Appendix 7aii.

<u>Analysis and result of stage 2</u>:

Primary research.

The pilot question set was sent to 6 REIT experts for their comments. A short summary of their feedback as follow:

- The question set is relevant, clear and provide enough room for end users to further expand their scope of questioning where necessary.

- A concise version will be handy.
- CG related questions are very important.
- Questions that seek for specific answers are more desirable.
- Gaining more clarity on how REIT managers undertake property acquisitions will be helpful.

All feedback was adopted to modify the questioning framework to produce the first draft questioning framework as archived on Appendix 7b. A very important add-on for the first draft questioning framework is a concise version for the REIT industry in general as well as for each of the subsectors.

Also archived on Appendix 7b are the various BMC mapped versions – namely detailed, three clusters and grand structure. The entire first draft questioning framework package was subsequently sent out to the 16 interviewees in preparation for their face-to-face interview.

Key areas highlighted during first round of expert interview:

- Potential conflict of interests between REIT and its sponsor.
- The difficulty of removing incompetent manager.
- Comparable industry benchmarks.
- Rights issuance track record.
- Details of debt financing.
- Post asset acquisition analysis.
- Innovative disruptors.
- Management operational track record during bearish rental market.
- Classic red flags.
- Ability to execute AEI efficiently.
- Presence of anchor tenant turned out to be a double-edged sword.
- Having multiple versions of questioning framework to suit the needs of different stakeholders has been timely.
- Final validation with industry experts provided extra layer of confidence among the interviewees.
- The one diagram BMC provided a holistic and simplified format to initiate analysis.
- Detail version of my questioning framework has been particularly suitable for desktop research.
- Interviewees were supportive for the scope of my research to be constrained by my access to professional human resources.
- A good and quite refreshing effort for the research universe.
- Questioning framework should directly benefit the retail investors.

- Framework optimally tuned for multiple usage.
- The framework motivated investors to start asking the right questions.
- A good initiation as well as benchmark for future researchers.

Key areas highlighted during second round of expert interview

- The strong focus on CG related issues persisted. Indeed, the entire primary research has convincingly confirmed the validity of CG's prime importance for the REIT business model as previously uncovered during the literature review.
- Track records during crisis were reiterated as the preferred way of assessing management quality.
- BMC in its original format has not been optimal for REIT industry.
- Content comprehensiveness was reassured. For ease of usage though, there was still room for improvement.

The insights from both rounds of interviews were compared, analysed and assimilated into the new framework, now labelled as the second draft questioning framework as archived on Appendix 8.

The specific steps taken when assimilating the insights

- For the concise version, five new questions were added.
- For the industrial subsector, three new questions were added.
- For the retail subsector, two new questions were added.
- For the detail version:
    - One new question related to physical asset was added.
    - Three new questions related to dividend were added.
    - Three new questions were added to further clarify the intricate relationship between the REIT and its sponsor.
    - One new question was added to address unique proposition.
    - Seven questions were added to seek out granular information during asset acquisition and disposal. The tone of questioning in this category was also amended to be less assertive.
    - Three questions related to CG were added.
    - Four questions related to manager compensation were added.
    - Five questions related to debt financing were added.
    - Three questions related to equity financing were added.
    - Three operationally related questions were added.
    - Two strategy related questions were added.
    - Five questions pertaining to how the REIT manager has performed during crisis were added.

  - Three questions were added to explicitly seek out comparable industry benchmarks.
- Macro-economic questions were refined to enhance their relevance.
- The BMC model was modified to better fit in with the REIT industry.

The second draft questioning framework was used to conduct two focus study sessions involving retail investors. The key insights obtained:

- A questioning framework that was too complex had little usage for retail investors even if it was comprehensive.
- Most of the participants preferred general direct questions.
- My questioning framework has been useful for sieving out fact from subjective opinion in public information.
- Participants were keen to know how to embed my questioning framework into a formal fundamental analysis process.

The questioning framework was subsequently reworked to further enhance comprehension among retail investors. The new version now labelled as the third draft questioning framework was created and archived on Appendix 9.

Analysis and result of stage 3:

Conceptual framework mapping.

The industry general section of the detailed question set was mapped onto a modified BMC framework. Based on the feedback from both the industry practitioners and retail investors, I amended the format of the BMC into two segments, seven compartments and a central hub:

- **Segment 1 - Internal operating dynamics**:
  - Funding related questions: specifically looking at sustainability of funding channels and its potential dilutive impact on minority shareholders' interest.
  - Accounting figures related questions: attempting to paint a holistic picture of how things are from public disclosures.
  - Internal stakeholder & process flow related questions: shedding light on the robustness of the CG structure.
  - Physical asset related questions: looking at key technical attributes such as lease renewal, lease expiry profile, AEI, acquisition track record and yield management.
- **Segment 2 - Environmental variables**:

    - External factors related questions: looking at relevant macro-economics, demographics, and regulatory variables.
    - Peer comparable metrics related questions: comparing relevant operational statistics such as rental rate, occupancy, average lease expiry profile and management fees with industry average.
- **Central hub - Management strategy and outlook**: questions within this compartment examine whether management strategy and tactics are aligned with one another as well as with the mega industry trends. This compartment also served as the central hub linking all the other compartments together.

Two versions of BMC mapping were produced, a detailed classification version and a pictorially condensed version. These newly mapped formats as archived on Appendix 10.

Analysis and result of stage 4:

Research output validation.

Output validation began with in-sample case studies, followed by out-of-sample case studies and eventually with industry practitioners.

Summary of validation with in-sample case studies: all potential red flags and key success factors would have been uncovered by my questioning framework. These potential red flags include related party transactions, seismic shifts in macro-economic conditions, disruptive technology, rights issuance, concentration of voting rights in the hands of sponsor, conflict of interest, and over reliance on anchor tenant. The key success factors include AEI, yield accretive asset acquisitions, DPU stability post asset acquisitions, thematic mall management, rebranding exercise, and cheap debt financing.

Summary of validation with out-of-sample case studies: the small capitalisation of MI REIT would have stood out as a key risk factor. The draconian shift in debt liquidity environment however would not have been pre-empted by my questioning framework. Forecasting macro-economic event is beyond the scope of my research. The entangled relationships between sponsor and manager of both Fortune REIT and Cache Logistics Trust however would have alerted my readers to probe for more information. Moreover, for the Fortune REIT case, there were three incentive structures put in place that clearly pointed towards potential misalignment of interest between REIT manager and the unitholders. The questions under the CG section of my framework would have successfully addressed them. In all, out-of-sample validation confirmed the validity and robustness of my questioning framework in capturing the various influential aspects of a REIT business model.

Summary of validation with industry practitioners: first interviewee found my framework to be useful when interviewing management, asking them tough but fair questions and relatively free from technical jargon. Segregation of questions into general REIT and four subsectors should hold strong appeal among retail investors. The questions that explore management's track record during crisis management was found to be very insightful. The interviewee also liked the motivational aspect of my framework as it encouraged retail investors to undertake thorough preparation and analyse through multiple logical tracks.

Second interviewee utilised my framework from both the perspective of a retail investor and an asset manager. As a retail investor, the interviewee found the specific questions under "Management Strategy and Outlook" to be adequate. When utilised holistically, the framework will enable users to tweak it for their specific circumstances. Questions that examined stability of income were deemed to be important. As a retail investor, the interviewee has lamented the importance of piggybacking on reputable "big boys" to safeguard CG. Because of that, the questions that seek out detailed information regarding key institutional shareholders have been very useful.

As an institutional investor, the second interviewee found my framework to be appropriate for systematic fundamental analysis. The questions within the "Peer comparable Metrics" compartment was useful for cross sector comparison. My framework has been very handy for extracting insights from management that cannot be retrieved from public domain. Finally, he also commented that my framework has been well structured, easy to use, comprehensive and addressed most blind spots an investor may encounter.

Third interviewee liked the way my framework has guided readers to explore how management identify themselves in the business and how they generate value by solving problems arising from competition. My framework has served as a good entry point for retail investors to initiate analysis and ask the appropriate questions. During real life application, my framework was able to highlight the relevant red flags.

All insights from validation were taken into consideration and adopted to amend the questioning framework where appropriate. The final version now labelled as the validated questioning framework was created and archived on Appendix 12.

To summarise, this research has demonstrated the possibility of undertaking robust research within the sphere of business and finance through adopting the interpretivist approach. When compared against most of the positivist driven research in this sector domain, the methodology adopted for this research has been quite refreshing for me as a researcher but also as a professional practitioner. I would urge future generations of researchers to push the boundaries of traditional paradigms.

Finally, individuals, companies and phenomena are interconnected to one another in a highly complex manner. Most attempts to understand the causality relationships among them have relied upon generalisation from empirical studies. The obsession with generalisation has often resulted in researchers ignoring the local contexts in which the phenomena have occurred. Unsurprisingly, such generalisation seldom possesses any predictive value (Boulton *et.al* 2015), especially during times of instability and extreme complexity.

If we are to embrace complexity and navigate it, we need to experiment with other epistemologies that give a stronger position to practitioner knowledge, agency and the ethics of practice and change which better reflect the reality of our business world and therefore how to innovate and develop it in the interests of sustainability and growth that has wider considerations than profits for the few (Herzog 2019).

Chapter 6 – Research findings and discussion

6.1 Findings and discussion of Stage 1 – Desktop research

6.1.1 Findings and discussion of equity market price analysis

The filtering exercise using equity market price as the objective benchmark provided a useful starting point to commence my desktop research. First, it narrowed down the scope of my desktop research to a more manageable level. Second, this exercise revealed that equity price movement can be decoupled from underlying fundamentals at times. The latter observation exerted subtle implication on the way I interpreted the comments collected from expert interviewees.

6.1.2 Findings and discussion of case studies

Case 1 – Hong Kong: HK2 from May 2011 until July 2017

New findings & discussion:

This case study highlighted the tendency of mass media not to give companies operating in Mainland China the benefit of the doubt pertaining to CG. The importance of having in place a robust CG system had been repetitively highlighted in the literature review by Pica (2001), Anandarajah (2012) and Bohjalian (2016). Therefore, researchers (including myself) must bear this in mind when analysing information from this area.

Macro influences such as shift in consumer shopping habit and GDP's growth rate coincided with that uncovered during the literature review (Sing 2005) to exert structural impact on the REITs. In addition, the double-edged sword effect of having in place anchor tenant and the positive yield impact derived from asset enhancement activities have once again been proven to be instrumental for the retail REIT sub sector, as had been previously highlighted during the literature review by Briddell & Supple (2011), APREA (2014) and Lazard Asset Management (2017).

Case 2 – Singapore: Fortune REIT from March 2010 until July 2017

New findings & discussion:

The importance of asset enhancement activities for retail REITs had once again surfaced up in this case study as it did before during the literature review from Lazard Asset Management (2017) and APREA (2014).

I have also observed that during the period from 2009 to 2017, the retail assets acquired by Fortune REITs were predominantly suburban or fringe area that were outside the CBD in Hong Kong. One possible explanation for this strategy might be the higher chance of getting a reasonable deal. Another reason might be the lack of land available for sale within the CBD.

Also, the fact that Fortune REIT could secure a new loan facility in 2016 at an average interest rate that was below its existing funding facility served as another objective testimonial of its gearing stability from the bank's perspective. Having in place a stable source of credit facility has been one of the key desirable attributes for an REIT, as highlighted during the literature review by Pefindo (2016).

Finally, Fortune REIT has been very active in the ESG aspect. This can be demonstrated from its proactive stance towards creating a smoke free environment for its shoppers, tenants, and local communities. Being socially responsible comes with two advantages for retail REITs. First, it creates a good impression among the local communities. As mentioned before, people like to shop at places where they feel good and have a sense of belonging. Second, being socially responsible generates long-term cost saving benefits as well.

This case study has been a classic example of a company that walked the talk. Most of the goals from their visionary speeches during asset acquisitions had been effectively executed, in the form of strategic asset enhancement, lower operational cost and green campaign, eventually leading to higher DPU. In the end, both public equity market and the banking sector voted positively through giving Fortune REIT a higher share price and lower cost of funding respectively.

Case 3 – Hong Kong: Link REIT from March 2010 until July 2017

<u>New findings & discussion</u>:

The Link REIT's case study demonstrated the importance of business acumen during asset acquisition and disposal as well as the courageous move of diverging into a new sector (from retail to office). Despite all the well acknowledged risks from the literature review associated with the above acts, Link REIT had rose above all occasions and executed profitably. This observation has been relatively in line with the importance of analysing the track records of REIT, as suggested by Phillips & So (2016).

Case 4 – Singapore: SGP2 from Dec 2010 until July 2017

New findings & discussion:

Even though the SGP2 case study was not a pure CG related misbehavior, it still highlighted several inadequacies inherent within modern REIT structure. First, the justifications provided by REIT managers during asset acquisitions and disposals, though compulsory were not mandated to be convincingly acceptable. Indeed, as illustrated in the case study, the monetary values at which these transactions took place need not even be in line with independent valuations. Second, the removal of property manager turned out to be highly complex and hard to execute in practice. This case study was therefore a clear demonstration of the embedded practical dilemmas within the REIT legal structure itself, which once again highlighted the importance of having in place a robust CG structure. This aspect has been narrated intensively by Pica (2011) and Anandarajah (2012) during the literature review.

6.1.3 Findings and discussion of key pilot factors

Through comparing the insights obtained from the four case studies with the technical content uncovered during the literature review, nine major categories of pilot key factors for the REIT sector in general were derived. These nine categories were:

- Relevant macroeconomics statistics.
- Demographics changes.
- Short term demand and supply dynamics.
- Asset base related.
- Operational efficiency and efficacy.
- Physical asset attributes.
- Financial metrics.
- CG issues.
- Opportunities and threats.

Relevant macroeconomics statistics

The macroeconomics content from both the literature review and case studies were relatively coherent. Most of them can be categorised across economic growth, property business cycle, interest rate shock and volatility of foreign exchange rates.

No literature doubted the strong impact of macroeconomic developments on the REIT business model. The main line of contentious argument lies in their usefulness in deciphering a REIT business model's future (Chesbrough 2010) outlook. Macroeconomics statistics on a standalone basis has been well modeled (Sing 2005) but at the same time relatively hard to be deployed across stochastic predictive valuation models (Chang *et al.* 2016). Feng *et al.* (2001) even went on to question their usefulness in business model analyses.

With that in mind, I did not place too much emphasis on unraveling the exact causality relationship among the key pilot factors under this category. Instead, I focused on including only the most cited four factors – economic growth, property business cycle, interest rate shock and volatility of foreign exchange rates.

Demographics changes.

Factors under this category made up the foundation that directly impact (Aoki 2012) the underlying demand for real assets. The literature review of both the academic universe and industry revealed relatively similar influencing factors. These factors covered organic population growth, aging profile, migration trend and impact from changes in governmental immigration policy.

Within demographics related factors, organic population growth had frequently stood out as the single dominant factor that usually trumped most other factors (Aspire 2014). The impact was particularly significant in cities where population inflow due to immigration remained subdued (Aoki 2012), largely as a confluence of cultural, governmental, and societal biases. Considering that, I placed greater emphasis on it when drafting the questions.

Short term demand and supply dynamics

According to Carey *et al.* (2017), Factors related to short term demand and supply dynamics have been commonly cited in various industry white paper. Explanation for how these dynamics work varied with the perspectives (angles) of the researchers. Subject to the professional roles of the researcher, degree of biases varied. There was also an absence of consensus pertaining to what constitute short term versus long term (Huang & Ge 2012).

On the side note, similar experience was encountered (Hudgins 2012) when researchers attempted to figure out the degree of impact short term volatility in public equity market had on REIT's pricing. As observed, the dual nature of REIT (Cline *et al.* 2013), first as a real estate and second as a public equity renders it to be correlated with factors affecting both asset classes. Since short term perceptions do exert a real impact on REIT pricing, the related questions ought to be included in my questioning framework.

Asset base related

REITs are essentially real asset operators. The underlying real assets generate utilities in the form of rent to be paid out to unitholders as dividends. As per any asset intensive business model, asset made up the foundation (Lazard Asset Management 2017) of the entire business model. Asset turnover which in turn measures the rate in which revenue is generated per dollar of asset therefore provides an objective measure (Turkmen & Demirel 2012) of operational efficiency. The previously mentioned environmental factors from macro-economics and demographics convoluted with the specific asset attributes to erect a boundary (Galloway 2015) within which property managers can exercise their operational acumen.

Rent utilities aside, the maintenance of real assets also incurred expenses. And other things being equal, scale often played the dominant role during expenses minimisation. First, when spread across a larger portfolio of asset, management cost per dollar of asset managed will be lower. Second, with larger and better-quality asset, REITs can secure debt financing from banks at lower interest rate. Third, according to Turkmen & Demirel (2012), REIT with AUM above USD 1 billion enjoyed comparatively lower cost of debt funding. This academic observation was in line which what were observed in industry white papers by LINK (2017), Wilton (2016), and Huerta (2012).

There is also the usual enhancement to brand equity where Galloway (2015) has demonstrated significant evidence pointing towards premium rental rates being correlated with the size of AUM and brand equity. In addition, the bargaining power with respective stakeholders such as property manager, construction company, anchor tenant and even to a certain extent the local government tends to improve with scale (Wilton 2016). Finally, having too many assets in the same region might incur unduly concentrated risk during regional market cycle downturn. That is when an appropriate geographical diversification strategy would be handy. To achieve appropriate geographical diversification though would imply global real estate allocation, which remains exclusively the sole domain of REITs with AUM of at least USD 1 billion (Turkmen & Demirel 2012).

Operational efficiency and efficacy

For external investors to specifically assess the operational acumen of REIT managers, desktop research has uncovered some objective tools. First set of tools revolves around comparing the rental rates, income stability, income growth potential, occupancy, and base rental rates relative to other REITs within the same sector, preferably those within close proximity (NYU 2000). Second set of tools looks at the qualitative aspect of property management which comprises of rental lease renewal strategy, surrounding amenities, and asset enhancement activities.

Physical asset attributes

The third set of assessment tools is more opened to debate, not only between both the academic and industry literature universes but also within each of them. These include the type of asset classes, degree of asset class homogeneity, diversity of tenant base and rental lease expiry profile. Pertaining to the unique attributes of each asset class type, I will be covering in detail in subsequent paragraphs. At this point, I will focus my narration on the latter three attributes.

Degree of asset class homogeneity: having a homogenous asset class type often translates into more efficient property management and greater efficiency during property acquisition and disposal (PlazaReit 2016). At the same time however, being homogenous in asset class also means the REIT will be exposed to both the property and industry cycles associated with their tenants. Take for instance an industrial REIT that operates a homogenous asset of warehouses for shipping companies. During the onslaught of the COVID-19 pandemic, this industrial REIT would have been adversely impacted relative to another competitor with asset class in data center or city center shared storage facility.

The same contentious issue also occurs with diversity of tenant base and rental lease expiry profile. Common intuition would have concluded that the more diversified a REIT's tenant base was, the better shape it would have been in when dealing with a specific industry's business downturn and/or the sudden collapse of an anchor tenant.

However, this conclusion may not hold all the times. In today's globalised world, the business downturn for many industries have become more correlated than their predecessors (Iacoviello 2015). In other words, having a diversity pool of tenants might not value add much for an REIT in terms of reducing tenants' sector concentration risk. Also, the ability to continue paying rents during business downturn is higher for anchor tenants compared to a portfolio of diversified small tenants. The recent COVID-19 pandemic has been a living testimonial to this conclusion (Akinsomi 2020).

Rental lease expiry profile is another aspect where it is not always the longer the better. During periods of property market buoyancy, shorter rental lease expiry profile would work to the advantage of REITs given they can reset the rental rates to more bullish market level (Hwa & Rahman 2007). The opposite effect though would come into play during property market downturn. Do take note however that a long rental lease expiry profile may not be adequate by itself to shield a REIT from the ongoing property market downturn. During times of extreme market distress, tenants may default on their rental agreements (MacGrath 2016).

This is precisely why the format of my questioning framework offers what I believe is a useful device for the variety of stakeholders in this sector. Being 'questions oriented' rather than 'rules driven', my questioning framework is designed to encourage interested parties to be more proactive and modify their thinking and modus operandi in the unique context of the REIT.

Financial Metrics

The other group of REIT attributes which holds relevance for investors is financial metrics. This is especially more so for large sized REITs (AUM above USD 1 billion) with a wide array of real assets spanning across many continents. For investors to analyse each underlying asset would be highly impractical. Therefore, the following performance metrics at corporate level can serve as a proxy to generate a holistic snapshot of how the REIT has performed throughout the years as well as in comparison with relevant competitors.

These corporate level performance metrics covers FFO, AFFO, dividend yield, debt profile, debt gearing ratio, book value per share, price-to-book value per share and details of property revaluation. Pertaining to the specific logic of how each financial metric works in practice, refer to the associated section in Chapter 5 – Research Analysis and result. In this section, I will focus on narrating the common misconceptions associated with using dividend yield, and price-to-book value per share during the valuation of REIT.

As an asset class by itself, REITs hold special appeal among retail investors. It is relatively common for brokerage houses to generate regular newsletters that provide a one-glance-see-all statistics for all the REITs listed on the local bourse (Wong 2017). Two figures on these newsletters usually capture readers' attention: **dividend yield** and **price-book value per share**. As can be infer from online REIT discussion forums, high dividend yield and low price-to-book-value REITs often made up the hottest topic of interest for retail investors (Investor Education Centre 2017).

Retail investors often regard a high dividend yield REIT to be akin to a quality high yield bond issue. The fact cannot be any further away from the truth than this. Wong (2007) and Podsakoff *et al.* (2003) have demonstrated that REITs with high dividend yield are associated with smaller size AUM, inferior quality asset and typically underperformed their sector over a 3-year holding time horizon. On the same token, retail investors who look for bargain hunt using the other financial metrics, namely low price-to-book-value often end up with the same subset of underperforming REITs.

These misconceptions had unfortunately led to unwarranted capital losses incurred by many retail investors (Singh 2019). In practice, the high distribution yield of REITs may not be sustainable (Chiang 2014) while greatly discounted below book value REITs are usually cheap for valid reasons (NYU 2000). These financial metrics should have been analysed together with other business model related attributes to ascertain the sustainability of the rental stream as well as the robustness of the asset quality. Once again, my questioning framework can provide the relevant guidance for retail investors in this aspect.

CG issues

At the helm of any business model lies the management. Usually, this is the single most important attribute that can cascade its impact down onto the entire organisation. For an outside investor, it is relatively hard to obtain sufficient understanding (Pica 2011) on the professional integrity of the management. Given the complexity of human nature, even corporate insiders find it tough to conduct an objective assessment of just how ethical their management have been (Fung 2014).

Fortunately, after several decades of trial-and-error in academic research and professional deployment, the CG structure of modern-day organisations, even though far from being perfect has readily evolved and attained a moderately robust format. Within the REIT industry, the usual breeding grounds for CG related misbehavior are found during property acquisitions and disposals, engagement of reality valuator, connected party transactions, anchor tenancy, and the selection process of property management company (Nestoras 2007). All the above are fertile grounds for either the REIT manager or sponsor to engage in unethical yet legal rent seeking activities (Bauer *et al.* 2009). Investors should therefore incur more analysis effort on these aspects.

Issuance of non-preemptive rights used to be an extreme poison pill for management to fend off malicious takeover attempt (Venkat 2014). Due to its negative reputation, management of REITs would have a hard time justifying its usage. Because of that, it has remained relatively uncommon for REITs to issue non-preemptive rights, unless under severe financing distresses. Other common grounds that should be covered during a thorough CG check include the degree of board independence, the relationships among the REIT manager, the adviser, the trustee, and sponsor (Anandarajah 2012).

Opportunities and threats

Finally, during my desktop research, I have uncovered the opportunities and threats unique for the REIT industry. These include the presence/absence of a sponsor, and with it the availability of new assets lining up to be injected at reasonable prices. Both Anadarajah (2012) and Pica (2011) emphasise the importance of having in place a responsible and interest aligned sponsor. These two papers highlight the risk that some REITs may have been used as exit channels for corporations to dump their inferior physical assets.

The most extreme form of unethical setting is where a sponsor has limited vested interest in the REIT, while at the same time continued to enjoy a regular stream of income tied to some percentage of AUM (Fung 2014). Such incentive setting encouraged the REIT manager to go on acquisition sprees to enlarge the AUM, fully at the expense of unitholders' interest.

Having devoted so much literature to discuss the findings from key pilot factors of REIT sector in general, I will proceed to discuss the findings for key pilot factors of the four REIT sub-sector, namely industrial, hospitality, retail and office segments.

Sub-sector - Industrial

Industrial REITs cover warehouses, storage hubs, data centers, flatted factories, and special purpose buildings. Depending on location and dominant usage purpose, the underlying assets can range from highly specialised warehouses fitted for niche industries/companies to more versatile flatted factories that can be adapted for a broad range of industries or even be converted into offices at short notice (Galloway 2015).

Relative to other REIT sub-sectors, demand for Industrial REITs have been relatively more cyclical (Galloway 2015) in most jurisdictions. Their asset land leases also tend to be relatively shorter (Piazzesi & Schneider 2012) than counterparts in the office, retail, and hospitality segments. Partially because of that, Industrial REITs typically command higher yield and lower price-to-book ratio (Spector *et al.* 2013).

Investors of industrial REITs place more emphasis (Brookfield 2016) on consumer spending, retail sales, import/export statistics, Purchasing Manager's Index to anticipate structural changes within the local economy. Structural changes within local economy often exert long-lasting demand shift (NSW 2006) for warehouses, ports, and flatted factory. The resulting degree of impact varies, depending on the current land space dynamics (Song *et al.* 2017). Therefore, industry specific figures such as total capacity in stock, country wide occupancy, regional occupancy, and potential supply of industrial land in the near future also fall under the watchlist of investors.

Sub-sectors – Hospitality and Retail

Hospitality REITs mainly comprise of hotels and service apartments. Together with retail REIT, both sectors are highly dependent on tourist and corporate travels (Plessis & Saayman 2011). During the COVID-19 pandemic, both hospitality and retail REITs sub sectors have found themselves stuck in a perfect business debacle (Akinsomi 2020) where global travel almost came to a complete standstill. At the peak of the on-going pandemic, occupancy rates of a handful of five-star hotels dropped to below10% (Akinsomi 2020).

Even before the pandemic, both sectors have been facing immense competition from technological disruptions (Zervas *et al.* 2016). For hospitality REITs, this technological disruption arrived in the form of co-sharing private lodging platforms such as Airbnbs. The mid-tier hotels were the most affected asset classes as their size, quality and pricing were comparable (Buhalis *et al.* 2016) to that offered by the online lodging platforms. Higher tier hotels though less affected were not spared of this wave of technological disruption. Enticed by a much wider variety of selections and topping that up with direct cash rebates from the online lodging platforms, many would-be five-star travelers have switched over to try out this new style of guest accommodation.

For investors of both hospitality and retail REITs therefore, changes in tourist arrival numbers and changes in average duration of tourist stay are two very important figures (Tourism Commission 2016) to keep a close eye on. Similarities aside, both sub-sectors also have some very different attributes, as I would be narrating in subsequent paragraphs dedicated to the retail REIT sub-sector.

Retail REITs mainly operate shopping malls which can be further divided into shopping malls located within CBD versus shopping malls located in heartland zones (Fishbin & Roth 2014). Unlike hospitality REITs where occupancy rate serves as a thermometer providing direct measure of the operational health (Saleem & AI-Juboori 2013) of their underlying assets, the same measure comes with a lagged effect for retail REITs. First, most tenants of retail malls enter into one to three years lease agreement with the mall operators. When crisis hits, the occupancy rate of shopping malls may not feel the immediate impact. Second, shopping mall operators typically resort to rent cutting or rent payment delay tactics (Akinsomi 2020) to maintain their occupancy rate during times of crisis. Because of that, monitoring the occupancy rate of retail REITs may not carry much value add for investment purpose.

In addition, relative to hospitality REITs, shopping malls can opt to rely less on global traffic flow to sustain their tenants' businesses. To begin with, most heartland malls already focused on serving domestic shopping demand while shopping malls in CBD can redirect their marketing campaign to rely more on domestic demand (He *et al.* 2018). This versatility of demand origination is usually proportional to a country's population size (Yin 2019). In other words, a huge country like China naturally has more leeway to redirect consumer demand towards internal origin than compared to a small city nation like Singapore.

For investors of retail REITs therefore, on top of global travel related figures, keeping a close eye on changes in Consumer Price Index, population growth rate, trend of median income and changes in perception of inflation and/or deflation are important (Lazard 2016) as well. In addition, investors should never lose track of the disruptive impact on retail REITs from technological innovation – in particular the onslaught from E-commerce giants such as Amazon, Alibaba, and JD dot com, just to name a few. When 5G and internet of things technologies eventually mature, the disruptive impact from these E-commerce giants might be elevated to a whole new level (PwC 2016).

Finally, at the micro level, there are still some measures (LINK 2017) available for retail REITs to effectively differentiate themselves. These include directing a successful promotional campaign, orchestrating a thematic shopping experience and further topping it up with delicate vendor management, injecting capital expenditure to undertake strategic AEI as well as supporting relevant government-initiated campaigns such as green week, no smoking month or ESG day. In other words, tactical efforts spent on enhancing **branding, image, and the physical conditions of assets** work.

Sub-sector – Office

Office REITs operate office towers and buildings. These assets are usually located in three zones – namely the CBD, the fringes of CBC and outlying business parks. The basic statistics to look at when attempting to obtain an understanding of this sub-sector business outlook are changes in unemployment rate, corporate profits outlook and changes in GDP (Fisher & Smeeding 2016).

Unlike industrial REITs, most of the assets under office REITs have relatively long leases, ranging from 50 to 99 years, depending on jurisdictions. And unlike retail REITs, the tenants of office REITs tend to have greater cash reserve and with it a higher probability to stay solvent during financial crisis (Sun *et al.* 2013). Because of these two factors, the occupancy rate of office assets, particularly those in the CBD zones of financial hubs like Hong Kong, London, New York City, Singapore, and Tokyo tends to converge around 90 plus percent. This is also part of the reason why the dividend yield of most grade A office REITs hover around 3 to 4%, barely half that of industrial REITs.

Similar to other REIT sub-sectors, the office REIT sub-sector has been vulnerable to disruptive innovation. Co-sharing working space has been around for a long time, but only until recently did it get elevated to become a serious contender with grade A office REITs (Ropes & Gray 2019). To make matter worse, the COVID-19 pandemic has forced many companies, even the most traditional ones to adopt working from home culture. Post pandemic, Akinsomi (2020) expects many of these companies to draconianly reduce their demand for physical office either through adopting co-sharing working space or permanently deploy part of their workforce to work from home.

Indeed, Akinsomi (2020) had openly expressed concern that post pandemic, many conglomerates after having nipped the cost saving and efficiency of working from home arrangement may become more receptive to a total rethink in talent sourcing. To begin with, conglomerates will become more cost conscious and continue to enlarge their percentage of employees on working from home arrangement. Following that, conglomerates may even progress to global talent sourcing given that working visa is no longer a restrictive issue for employees who are working from home anyway. Such scenario will generate structural shift in the demand for local labor in various financial hubs and with it the volatility in demand for office space (Wright 2016).

At the micro level, investors would do well to ensure their office REITs are putting effort on getting green building certification, installing state-of-the-art internet-of-things gadgets, and adopting smart building architecture. With time, these space age like installations will become standard package for the next generation of office tenants. Office REITs who build in these devices at the onset will incur much lower cost of deployment compared to others who opted to play the catch-up race (JLL 2014).

6.2 Findings and discussion of stage 2 – Primary research

6.2.1 Findings and discussion of pilot testing

The core theme of the comments from the six REIT experts during pilot stage revolved around stakeholder communication enhancement which include the following:

- **Optimally trimming down the length and complexity of questions.**
- **Tweaking the questioning frameworks into multiple versions to carter for the needs of different stakeholders.**
- **Rephrasing certain questions so that they become less ambiguous and at the same time able to trigger more granular responses.**

The key rationale for the above suggestions mainly originated from the short lead time that most retail investors have when they are granted direct access to listed companies' management during AGMs. Another plausible rationale involves psychology, the typical short attention time span of most retail investors (Podsakoff *et al.* 2003).

Pertaining to the degree of comprehensiveness of my questioning framework, the six REIT experts were relatively satisfied. There were a couple of minor suggestions specifically targeted at disruptive innovation to further improve the depth of my questioning. Coincidentally, disruptive innovation has been a common topic mentioned during the literature review as narrated by PwC (2016) and Buhalis *et al.* (2016). Another area of focus is CG. In congruent with Primbs & Wang (2016), Minaya (2013) and Pica (2011) during the literature review, the six REIT experts placed heavy emphasis on questions that examine the CG of REITs.

I am pleased to highlight that none of the question from the pilot questioning framework was found to be completely irrelevant. Based on the comments obtained during the piloting process, I inserted a few additional questions and made some minor amendments to the detailed version of my questioning framework. Following that, I drafted the concise version of the questioning framework for REIT in general and created the concise version for all four sub-sectors as well.

In all, the feedback from the piloting stage had enhanced the readability of my questioning framework and reaffirmed its degree of comprehensiveness.

These two outcomes paved the way for me to carry out the next stage of my primary research efficiently through focusing on amending existing questions to reveal the true working dynamics of the REIT business model.

6.2.2 Findings and discussion of expert interviews

First round interview - consensual issues:

During the first round of face-to-face interviews, **CG issues** was dominant. A myriad of issues was brought up and with the potential conflict of interests regarding REIT sponsor having received the most attention. Part of the reasons might lie with the handful of newspaper headline reports involving REITs indulging in CG related frauds[102] across global capital markets. This phenomenon has been in-line with that uncovered by Nestoras (2007), Pica (2011) and Fung (2014) during the literature review. Considering that, my act of coming up with a dedicated section of questions to address CG issue has been justified.

Any business model analysis carried out on a standalone basis remains incomplete until the outputs have been compared with that of peer entities. My questioning framework goes a step further than that. On top of allocating questions to seek for relevant statistics of competitors, my questioning framework also asks for **industry benchmark figures** and where feasible the traceable sources of information as well. This aspect of my questioning framework was favored by most of the interviewees as well as demonstrated by Chen *et al.* (2014) and EY (2016) during the literature review.

The third area commonly highlighted during the first round of face-to-face interviews involved **financing channels.** In particularly, the interviewees placed strong emphasis on both debt and equity financing track records. I interpret the rationales behind such strong emphasis to have been originated from interviewees' memory of:

- The several high-profile dilutive rights issue (Venkat 2014) by REITs during global financial crisis and
- The extreme debt leveraging just before that which was the dominant reason that got some REITs into trouble in the first place (Lazard 2016).

There was another interesting point worth mentioning for financing channel related primary research. During the interviews, the industry experts were

[102] *https://www.mingtiandi.com/real-estate/finance-real-estate/eagle-hospitality-reit-agm-stalls-after-director-removed/*
https://www.investmentnews.com/texas-reits-to-pay-8-2-million-for-misleading-investors-74911

keener on questions that were directed towards uncovering fund-raising track records. There was almost complete silence towards questions that seek to understand management's funding strategy going forward. I interpret this as expert interviewees' preference to look at acts already committed rather than action that may be executed in the future. Coincidentally, such preferences have been identified by Phillips & So (2016) and Pica (2011) during the literature review as well.

One very insightful suggestion pointed out by the interviewees was related to **property acquisition.** Most interviewees were of the view that solely comparing the price paid for with third party valuation was not enough. They suggested questioning the management for more granular information on how they came to the final purchase price as well as monitoring whether the acquisition did in fact turn out to be yield accretive few years down the road as previously claimed. Song *et al.* (2015) had the same view during the literature review. Once again, the expert interviewees displayed strong preference for track record.

A surprising outcome was the consensual **de-emphasis of macro-economic factors.** While all interviewees agreed that macroeconomics exerted a strong impact on real assets, the relevant factors span across a wide spectrum concurrently dampening and supporting real assets (Chan *et al.* 2016) pricings. The result is a largely unpredictable environment which discounted the usefulness of analysing macro-economic factors for the REIT industry.

One other area where all interviewees achieved consensus revolves around **classic sources of red flag**. The first source concerns the immediate collapse of rental yield almost immediate after IPO. Very often, it originates from the sponsor pulling out from being the anchor tenant soon after IPO. As highlighted by Chen *et al.* (2014), there remains the possibility that the rate of rental may have been artificially inflated prior to IPO to capture a better selling price. Another common source of red flag lies with the sales-and-lease back arrangement with sponsors at below market price level immediately after the IPO. As can be observed, pertaining to classic red flags, the suspected offenders tended be relatively uncreative and repeatedly kept to similar act.

Moving forward, as per in-line with the literature review, **the ability to execute AEI efficiently** (Lazard Asset Management 2017) makes up one of the key competitive advantages of REIT. My expert interviewees went on further to emphasise its importance for the hospitality and retail subsectors.

Considering that, I further enhanced the questioning clarity for the respective sections in my questioning framework.

As per during the piloting process, the multiple versions of my questioning framework continued to find strong support among the expert interviewees. This once again reaffirmed the observations made by both Huberman & Miles (1994) and Alexander (2001) during the literature review. The **one diagram BMC version** was also well liked by the interviewees as they were able to obtain a holistic view of my framework through a quick glance. This attribute will be very important to sustain reading perseverance among retail investors (Osterwalder & Pigneur 2010).

<u>**First round interview - debatable issues**</u>:

The usefulness of the unique proposition compartment on BMC was debatable. Critics questioned the potential myopic analysis if retail investors were to exclusively focus their attention onto this compartment while deemphasising the rest. Supporters on the other hand preferred the quick anchoring effect for investors with little time to undertake a thorough analysis.

The pros and cons of having in place an anchor tenant was concurrently highlighted by the interviewees. Even the conclusion from the literature review has been mixed, as per narrated by Harmse (2012) and Chesbrough (2010). I tweaked my questions to reflect the contextual dependencies of this attribute. These contextual dependencies include but are not limited to the type of asset class and relationship between anchor tenant and sponsor.

The benefits and disadvantages from asset diversification. Critics of asset diversification held unwavering support for corporate pureplay and questioned the technical difficulties REIT managers would be facing when operating varying asset class across different geographies. Supporters for asset diversification at corporate level on the other hand clamored for the risk minimisation potential that originated from imperfect income correlation among the diversified real assets. Supporters further affirmed the belief that if a management is competent, they should be able to overcome the technical difficulties of managing a diverse portfolio of real assets.

The importance of changes in interest rate, the mean reversion of financial metrics to long run averages, the usefulness of book value, the importance of monitoring and analysing intrinsic operational issues are commonly mentioned debatable issues as well.

<u>First round interview - positive comments on my questioning framework</u>:

Finally, the interviewees also provided positive comments on my questioning framework. First, it has been a **good effort** and **refreshing style** within the research universe, one which **might get adopted by future researchers**. Second, the **dominant aim of enhancing the level of financial literacy among retail investors has been achieved**, especially given that my framework at the very minimum **trigger investors to start asking the right questions.** Third, the interviewees expressed strong **support for the third stage of the validation process** where I would be getting three practitioners to test run my questioning framework in real-life fundamental analyses of REITs. That to them represented **one of the most stringent acid tests in an interpretivist research.**

<u>Second round interview</u>:

During the second-round interview, the interviewees did not diverge significantly from their initial viewpoint. For those who have made changes to their initial comments, the content mainly revolved around CG. Such **strong emphasis on CG** once again demonstrated its importance, in congruent with suggestions from Primbs & Wang (2016) and Anandarajah (2012) during the literature review.

CG aside, there was also **consensual preference on questions that seek to uncover the REIT's operational track record** during crises. Relative to during the first round of interview, such preference became more common among the expert interviewees. In other words, interviewees who were previously silent on this aspect became its supporters during the second-round interviews.

The above observation inspired me to cluster all questions related to both CG structure and historical track record of handling crises into the same compartment. Hopefully, it will encourage users of my questioning framework to obtain a holistic understanding of what had happened in the past (the track record) versus what had been put in place (the CG structure) to safeguard shareholders' interest.

On top of that, the **voices to downplay the operation and macro-economic related questions grew stronger** during the second-round interviews. Interviewees were not questioning the relevance of these questions but instead were worried about their usefulness for retail investors. First, the answers to these questions can hardly be obtained directly from public domains. Second, even when the answers to these questions are available, **the inherent causality relationship among them are usually relatively complex and technical in nature** (Fildes & Stekler 2002).

In response to the above observations, I trimmed down most of the affected questions in the concise version of my questioning framework and shifted them to the detailed version of my questioning framework. In this way, readers of the concise version of my questioning framework will not be too overwhelmed by the operational and macro-economic related questions. As for readers who aspire to analyse more in-depth, they can proceed to use the detailed version of my questioning framework when their analysis bandwidth becomes available.

Another area that attracted many comments revolves around **suggestions to modify the BMC headings and subheadings.** Up till this point, most of the interviewees were already relatively satisfied with the scope and depth of the questioning framework. Attention was therefore devoted towards improving the ease of comprehension. These included amending both the BMC headings and subheadings to make them more intuitive and user friendly. This observation eventually influenced the way I conducted the focus group study sessions with the retail investors.

6.2.3 Findings and discussion of focus group study

As expected, the **retail investors displayed strong preference for the concise version of my questioning framework**. In addition, the retail investors also **preferred direct questions**. In response to that, I further trimmed down the length of the questions on my concise questioning framework. On top of that, Saleky (2018) and Krauss & Chiu (2000) have highlighted that for most English readers, **relative to passive voice, active voice has been better at improving comprehension during most contexts**. I therefore opted to use active voice over passive voice where appropriate.

During the two focus study sessions, the retail investors suggested **ranking each question using a weightage system**. I interpret this suggestion as their preference for more granular guidance on which questions to further focus on. Given the wide variety of contexts a listed REIT can thrive in, pre-ranking of questions based on their degree of importance would not be feasible. In addition, the original aim of my research was to create a questioning toolkit for readers to initiate their robust analysis, it was never meant to be a spoon-feeding mechanism.

The retail investors also re-affirmed **the lack of intuition pertaining to BMC's original headings and subheadings.** This was in line with what was suggested by the expert interviewees during the face-to-face interview stage. In response to that, I proceeded to review and amend both the headings and sub-headings of BMC to optimise its fit with the REIT industry.

6.3 Findings and discussion of stage 3 – Conceptual framework mapping

Based on the comments from professional experts and retail investors, the headings and subheadings of BMC models have been modified to better reflect the operational dynamics of the REIT industry. This resulted in the modified BMC to have one central hub, two segments and seven compartments. The associated headings of the central hub, two segments and seven compartments originated from some of the most mentioned keywords used during the focus study sessions. Using this approach, I hope to leverage on the modified BMC to shorten the gap of communication with my most important group of target audience – the retail investors.

The first segment covers **internal operating dynamics**. It focuses on the internal working mechanism of the REIT. Users of my questioning framework should be able to select the appropriate questions within this segment when they aspire to understand how the REIT functions on a daily basis, who are the key internal stakeholders, which are the critical process flow and the REIT's current financing status. There are four compartments associated with this segment, namely funding related, accounting figures related, internal stakeholder & process flow related, and physical asset related, as illustrated pictorially below.

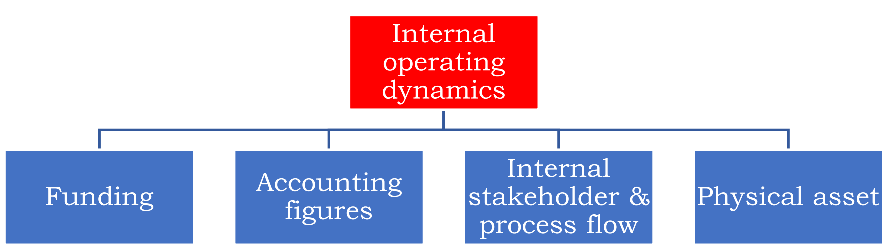

Figure 10: Flow chart view of the internal operating dynamics segment.

The second segment covers **environmental variables**. This segment focuses on the macro-economic statistics and benchmarking metrics relevant for the

REIT industry. Users of my questioning framework should be able to select the appropriate questions within this segment when they are attempting to get a feel of how their target REIT is performing relative to industry average and other competing REITs, and to what degree their target REIT is being affected by the structural changes in the local, regional and global economies. There are two compartments associated with this segment, namely external factors related, and peer comparable metrics related as illustrated below.

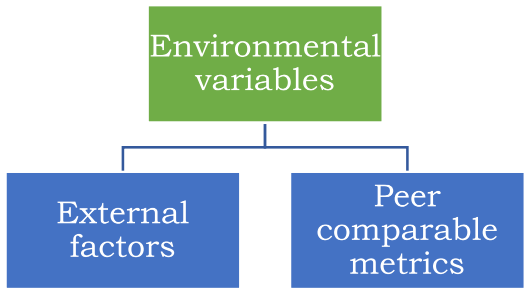

Figure 11: Flowchart view of the environmental variables segment.

The central hub which is also the last compartment is a stand-alone compartment that **encapsulates the management strategy and outlook.** Users of my questioning framework are expected to be looking into this compartment after they have obtained a solid understanding of the previous two segments. The relationships between all compartments are connected through this centralised compartment as illustrated pictorially below.

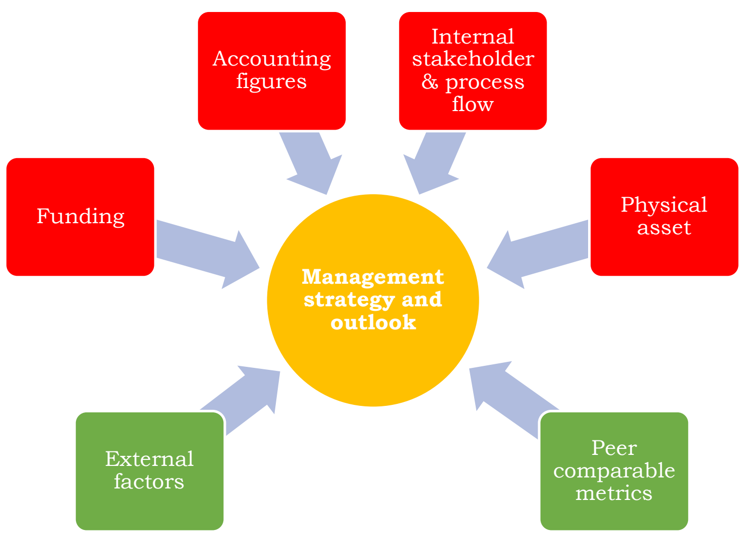

Figure 12: Pictorial view of all seven compartments.

By the time users visit the central hub, they are probably looking for suitable questions to decipher the REIT management future game plan. At the other end of the spectrum, questions within this centralised compartment can also serve as ice breaker content for my users during AGMs. Finally, REIT management's answers to the questions in this centralised compartment can also serve as the first filter for them to decide whether the REIT up front is worthy of their effort to analyse more intensively.

With this modified BMC mapping, **I have made it easier for readers with different analytical focus to zoom right into the appropriate segments and the associated compartments to look for the suitable questions.** This setting should go a long way towards optimising the research effort required by my users.

6.4 Findings and discussion of stage 4 – Research output validation

The following paragraphs will narrate on the findings & discussion from validation exercises with in-sample case studies, out-of-sample case studies as well as with a subset of the pool of expert interviewees.

6.4.1 Findings and discussion of validation with in-sample case studies

<u>HK2</u>:

My questioning **framework covers all the potential red flags.** Most of the relevant questions are **CG** related and can be traced to the internal stakeholder & process flow related compartment under the internal operating dynamics segment on the mapped BMC. This implies that users of my questioning framework would have been able to optimise their effort when analysing HK2. At the minimum, given that most of the relevant questions are in the same compartment, search time would have been minimised.

<u>Fortune REIT</u>:

Most of the questions in my framework that are relevant for the case study are to be found under the Retail REIT sub-sector. As Fortune REIT mainly operates shopping mall, this has been well within expectation. Investors with interest on Fortune REIT would have used the retail sub-sector of my questioning framework. Once again, my questioning framework would have optimised the analytical effort required.

<u>Link REIT</u>:

Many questions in my framework were invoked during the analysis of Link REIT. **The amount of analytical effort required for Link REIT had been intense, relative to both HK2 and Fortune REIT.** Many of the red flags that have been singled out eventually turned out to be **false alarms.** These conclusions would have been reached over the course of time through those track record related questions within my questioning framework. The most important questions within this cluster have to do with **property acquisitions and disposals**. Another important evidence that would have pointed towards Link REIT's **manager business acumen** rested with their below market rate green bond financing. Even that would have been pointed out by the respective question within the funding related compartment under the internal operating dynamics segment.

<u>SGP2</u>:

At inception, my questioning framework would have sounded **the first alarm bell on SGP2 right before IPO.** Firstly, SGP2 had a captive REIT structure, where the sponsor owned 51 percent of the REIT manager, which was singled out by my questioning framework. Secondly, SGP2's sponsor also happened to be one of its key anchor tenants, another red flag that would have been readily covered by my questioning framework. Thirdly, the unconvincing reason given for the disposal of a long lease industrial building at below book value would have served as the final nail in the coffin for users of my questioning framework. In a nutshell, all available red flags in the case study would have been readily picked up by my questioning framework, even on an ex-ante basis.

6.4.2 Findings and discussion of validation with out-of-sample case studies

<u>CIT and AA REIT</u>:

MI REIT did not implode its gearing ratio all in one go. The entire process took place over a 15-month period before the GFC. My questioning framework would have pointed users to question **the escalating gearing ratio**, especially on the back of a relatively small sized AUM. Investors who noted this trend and sought for clarifications from management during the subsequent AGM could have offloaded their investment if they were not satisfied by the explanations. On hindsight, if these investors had offloaded their investments before the peak of the GFC, the capital loss would have been negligible.

Fortune REIT:

This case study did **point to an inadequacy within my questioning framework: unable to single out the whitewash waiver clause.** Even when this waiver clause was documented in Fortune REIT's annual report during the year when the clause was approved during an EGM, investors that relied on my questioning framework for analysis would not have come to notice its importance. As mentioned before in the corresponding paragraphs in chapter 5, including such unique legal attributes within my questioning framework would have expanded its scope to beyond the manageable boundary of a doctoral dissertation.

That aside, my questioning framework still did a decent job in **capturing the embedded conflict of interest between the sponsor and REIT manager** given that they shared the same controlling entity. Finally, the misaligned incentive structures would also have been flagged out as red flag by the users of my questioning framework.

Cache Logistics Trust:

The **complex relationships among sponsor, REIT manager and master lease tenant** would have been singled out by my questioning framework. The associated questions could then be used for seeking clarifications with management during pre-IPO roadshows. If users of my questioning framework remained unsatisfied with the given answers, they could have walk away from the IPO. Once again, my questioning framework has lived up to the occasion.

6.4.3 Findings and discussion of validation with expert interviewees

The expert interviewees were relatively satisfied with the versatility of my questioning framework. Whether from the perspective of a retail investor looking to question management during AGMs or from the perspective of an institutional investor in the midst of building a robust financial model, a suitable format can be selected from my questioning framework. This feedback was particularly important as it indicates the huge outreach potential of my research.

The three expert validators have also found **the tone of narration of my questioning framework to be relatively appropriate**. To be specific, they have found the **questioning style of my framework to be tough but fair on management**. To me, this has been a very positive feedback. Tough questions usually result in new insights but only when these tough questions have been asked fairly. The worst outcome is a highly provocative questioning framework that serve no purpose other than antagonising the management. Thus far, my questioning framework has done a good job in avoiding this landmine. Indeed, one of the expert validators felt that my questioning framework can **readily serve as an acid test during dialogue session with management** where for those management who cannot answer or opt to avoid answering the fair questions presented to them, he would simply walk away.

Another positive consensual feedback after using my questioning framework touches on **the segregation of questions among the four sub sectors.** The three expert validators felt the segregation has been well executed. One of them highlighted that the questions embedded within the "Physical asset", "Funding related", "Internal stakeholders" and "External factors" compartments have been **convenient for extraction and at the same time concise enough for direct use during in-depth analysis.**

One other pleasant surprise for the three expert validators is **the minimal use of technical jargon throughout my questioning framework.** They were **delighted that this was possible for such an in-depth piece of industry research.** None of them had any doubt pertaining to comprehensibility from the perspective of a retail investor.

After using my questioning framework, the expert interviewees experienced **strong motivation to continue towards more intensive research**. In particular, **the peer comparable metrics compartment has proven to be highly inspirational.** One of the expert validators commented that my framework has influenced him to become more cognizant of the peer metrics, leasehold expiry, and funding issues. Another expert validator commented that he was **able to leverage off the cluster of questions on CG to gain deeper appreciation of the respective details to look out for when examining overseas real estate portfolio**. I am glad that my questioning framework has been able to inspire users to creatively extend their analytical boundaries.

Finally, the expert validators also commented that **depending on the sequence of questions being asked, users of my questioning framework will be led to different uncharted territories.** At the other end of the spectrum, regardless of the sequence of questioning undertaken by the users, generically important attributes pertaining to the REIT's business model will eventually be covered. In other words, **my questioning framework was able to support the varying needs of different users while at the same time ensuring that each user did not miss out considering the basic yet essential attributes.** That to me is strong evidence pertaining the practicality of my questioning framework.

My questioning framework was initially created with the primary intention of use by retail investors to ask the appropriate questions during desktop analysis as well as using the same set of questions to "interrogate" the management of listed companies. Based on the results of the framework validation, both objectives have been successfully accomplished.

In particular, the three expert validators have tested it on the management of listed REITs. It has not only gained them more respect in front of the management but also enabled them to engage the management in a more holistic and systematic manner, leaving very few stones unturned. From the body language of the management displayed during those face-to-face question and answer sessions, my expert validators reported that they had received many important non-verbal clues that revealed the true business conditions of the listed companies.

6.5 Chapter summary

This chapter discusses the specific research findings and discussion as originated from various stage of my research. Comparison was made between what was uncovered during the literature review versus what was extracted from primary research. In addition, where appropriate, a comparison was also made between desired outcomes versus actual outcomes. And finally, to what extent did the findings fulfil my objectives and aim.

At inception, public pricing information of stock market indices and REITs have served as effective filters to narrow down the boundary of data pool to a more manageable level. This largely sped up the process where four associated case studies of the best and worst performing REITs listed on HKEX and SGX were selected. When the business model attributes extracted out from the case studies were compared with that obtained during the literature review, the results have been relatively encouraging.

Key attributes such as **the disruptive impact from technology, double-edged sword nature of anchor tenant, the positive impact of AEIs, the importance of CG and the inherent flaws of the REIT structure** have been congruent across both the case studies and the literature review. Other interesting attributes that were revealed during the case studies and at the same time highlighted during the literature review albeit in different contexts included **the importance of analysing REIT manager's operational track record and the proxy use of low-cost debt financing as an effective third-party validation of the REIT manager's business acumen.**

When insights from all the four case studies were amalgamated with the technical content uncovered during the literature review and the comments obtained from face-to-face interviews as well as the focus group study sessions, ten key insights were uncovered – detailed narrative as follow.

The limited practicality of macroeconomics factors turned out to be consensual. Even though the underlying real assets of REITs have been heavily influenced by macroeconomic factors, it has been highlighted by my expert interviewees and both Fung (2014) and Bullen & Crook (2005) that contrasting economic signals usually exist simultaneously, rendering their predictive capability to be questionable. Even in the rare occasions where most economic indicators pointed towards the same direction, it would remain relatively tough for the investor to determine to what degree has the REIT pricing already incorporated the one-sided economic influence.

Demographics factors make up the core foundation of demand for real assets, especially in the long run.

Short term demand and supply dynamics tends to exert significant short-term pricing influences due to the public equity and real asset dual nature of REITs.

Asset turnover has been a relatively good indicator of how efficient the REIT manager has been managing the underlying assets.

Size did matter a lot in the REIT industry. The associated economies of scale could be directly translated into tangible cost savings in the areas of management fees, financing cost, brand equity and asset risk diversification.

Homogenous asset class, diversity of tenant base and rental lease expiry profile: there were strong debates among different school of thoughts within the literature pertaining to the pros and cons of these. The net impact could tilt both ways, subject to different contextual factors such as the REIT subsector, jurisdiction and stage of business cycle.

Many business model related insights could be inferred solely through analysing the financial figures in publicly available disclosures. This observation further amplifies the importance of having in place a concise questioning framework that includes a section on financial metrics.

Concerns on the myopic analytical approach commonly displayed by retail investors who focused solely on high dividend yield and/or low price to book ratio REIT as their prime investment candidates were expressed by both the expert interviewees and the literature review According to Investor Education Centre (2017) and Indrawan & Wahyuningsih (2019), these retail investors conveniently ignored the operational risk often associated with these “cheap” REITs.

The breeding grounds for CG related misbehavior were found to be concentrated in common zones such as manager-sponsor relationship, asset acquisition and disposal as well as in the management fee structure. These observations had remained consistent throughout the research process, from the literature review to pilot testing, right through primary research and until result validation. Finally, **strong diversification potential for investors** did exist, as can be inferred from the unique attributes drafted up for the four subsectors.

These ten insights were taken into full consideration to reshape the questioning framework as well as mapping out the modified BMC. Eventually, when the final questioning framework was subject to the validation processes, it received overly positive feedback when matched against the desired outcomes for retail investors and other relevant stakeholders. The fully validated questioning framework had been archived on Appendix 12.

Chapter 7 – Conclusion and recommendations

7.1 Conclusion

This chapter presents the conclusion and recommendations for a range of stakeholders. I also identify not least the research's impact on my own practice. This is preceded by a rationale for making those recommendations and how they are directly related to the findings.

7.1.1 Impact on various stakeholders

An unexpected result from my research was having to arrive at consensus among the interviewees for more concise narration pertaining to the business model narration section of the IPO prospectus. Coincidentally, the importance of being concise during business model narration have been similarly highlighted by Osterwalder, Pigneur & Tucci (2005) and Wu (2009) during the literature review.

At the same time however, while all my interviewees have agreed that no individual can holistically comprehend any IPO prospectus in its entirety, they also deemed it impractical to expect listed company to drastically reduce the content. This is because an IPO prospectus serves as the final legal document for listed companies to fully account for their disclosures. This is and will continue to be the top priority of IPO prospectus.

In short, the IPO prospectus is first a written formal document for listed companies to discharge their legal responsibilities. Making the prospectus comprehensible for other end users will always be secondary prior to fulfilling this legal requirement.

Given that language is not a perfect medium of communication, it is not practical to expect legal documents to be short, unambiguous and at the same time easy-to-read for the retail investor. This is where my business model questioning framework will be useful.

1. My questioning framework equips stakeholders in the capital markets with the ability to zone right into the aspect of a company business model that they are keen to explore further. In an era where information overload is the norm (Braccini & Spagnoletti, 2008), this attribute is crucial.

2. Through having multiple versions of the business model questioning framework – concise, detail and sub-sectorial, my framework facilitates readers with different level of resources to analyse their target companies.

This importance has been highlighted by Alexander (2001), Osterwalder, Pigneur & Tucci (2005) and Wu (2009) during the literature review.

For now, let me pause for a moment and summarise the research process to explain why I embarked on it, how the framework has been shaped by different individuals during various stages and to what extent all the desired outcomes have been accomplished in the flow chart below.

Figure 13: Flowchart view of my research at different stages.

In all, I have attempted to strike a delicate balance between being too abstract versus being too prescriptive. As highlighted by Yunus *et al.* (2010), too high a level of abstraction will diminish the practicality of my questioning framework. At the same time, I have also refrained from being too prescriptive in the structuring of my questions so that the framework can retain most of its relevance even when new developments occur within the industry. In other words, my questioning framework still possesses a tinge of abstraction, henceforth enabling customisation to optimise usage during most contexts.

In short, I believe I have found a sweet spot between practical usability and reasonable shelf life in environments that change rapidly due to contextual factors of internal and external complexity.

The relevant findings from the literature review and primary research were mapped onto the different components of the modified BMC conceptual framework. Subsequently, a scale-down protocol of the above was re-enacted across 20 other sectors in full time research role. The resulting questioning frameworks are found to be relevant and comprehensible for retail investors during the subsequent APAC promotional roadshows. This is solid evidence for the portability of my research structure across many other non-REIT sectors.

Illustrated below are testimonials/responses to my use of the questioning framework in some of my educative work.

For retail investors	• Concise version of my questioning framework serves as a template to ask the most relevant and incisive questions during short encounters with top management. • For the more enthusiastic retail investors, they can leverage on my detailed questioning framework to map out a feasible research blueprint for their investment targets. • To date, the six physical events I co-hosted with the investor protection bureaus of both HK and Singapore government have attracted > 2,000 retail investors. • The subsequent educative publications produced attracted more than 200,000 online click rates. • On top of that, the associated video series gathered more than 3 million viewership globally.
For institutional investors	• Detailed version of my questioning framework serves as a handy signpost for them to cross check whether most grounds have been covered during fundamental analysis. • This holds direct relevance for CFA Institute membership given that a significant portion of our members are from the buy-side industry of the capital market. • To date, more than 2,400 industry professionals have benefited from the four-industry business model related webinars I hosted during the COVID-19 pandemic period. • And as validated by the professionals during their fundamental analysis, my questioning framework has served as an appropriate complement to their financial model to arrive at a fair value for their target investment.
For listed REITs	• Assists top management, CFOs and Investor relation officers of the listed REITs to obtain a holistic picture of what fund managers and retail investors aspire to know during result briefings. • These individuals are already experts in the REIT industry. What they aspire for most is effective stakeholder communication. • To achieve that, they need to look at their business model from the frame of reference of investors. • To date, more than 30 industry practitioners have actively participated in the ten-business model related panel discussions I co-hosted.

Figure 14: Table view of the testimonials and responses for the educative outreach activities spun off from my research.

7.1.2 The satisfaction in undertaking an intense research

This has been an intense undertaking requiring very careful forward planning, the securing of participants through trust in my intentions and willingness to put so much of my own time into ensuring its reliability, validity and very importantly its usefulness as an ethically focused product. The rewards are diverse and not always easy to capture in words.

My employer, the CFA Institute won the Financial Education Champion 2019 awarded by the Investor and Financial Education Council (IFEC). This award was given to organisations that demonstrated exceptional public contribution to uphold investor education. I was very honored to have played a pivotal role through leveraging on the positive spin-offs from my research in the form of virtual webinars, physical panels, educative publications, and videos.

For financial regulators, they can utilise my detailed questioning framework to encourage listed companies to disclose information that are useful for investors during IPOs. This should go a long way towards rectifying the boiler-plate content that is still relatively common during business model narration in IPO prospectuses.

Thus far, my questioning framework has played a small but lasting role in stakeholder education. With time, this should enhance market integrity.

This framework however is not a panacea for judging the sustainability of a company business model. In fact, as highlighted by Osterwalder (2004) and Stefan & Richard (2014), even though business model analysis is an important dimension of fundamental analysis, by itself, it is insufficient to determine the eventual outcome of a company. Companies thrive in a complex ecosystem (Olten & Bonn 2013) with relentless influences from international political maneuvers, changes in local government policies, and highly disruptive technological innovations. Users of my questioning framework need to be fully aware of such limitations.

Also, to fully comprehend the business model of a company, users must be mentally prepared to spend a lot of time and analytical effort. It is not an overnight job where a casual glance of my questioning framework will reveal the complete picture of how an industry or company operates.

My business model questioning framework is merely a starting point, a well-planned out structure as well as a convenient approach to understand a company from ground zero.

For users to optimise their utility when using my questioning framework, they must be curious, proactive, and extremely persistent. I strongly recommend my questioning framework as a starting point for their investment "interrogation" during both desktop research and dialogues with senior management.

7.1.3 Impact of undertaking research as a piece of doctoral work

During project planning: as this research study was originally intended to consolidate my 18 years of practice with my decade of tertiary academic endeavor, I already had a clear idea of what I hoped to achieve from a doctoral programme. Given that, I went straight to draft up the methodology section instead of beginning with what the nature of practitioner research is if one is positioning oneself as an agent of change in one's professional sector. I did not undertake a doctoral programme to teach in a university, I was undertaking this research, doctoral or not, to address an ethical issue for me which had arisen both personally and professionally.

Astonishingly, after scribbling out few hundred key words based on what I understood a practitioner driven doctoral project should encompass, I was lost in my sea of thought. The more I forced myself to hypothesise the logical implication of what I had written, the less convinced I became. I ended up having to put on hold what I had already written and concentrate on the context of the genesis of the reasons to undertake the research - why me, what for and for whom? I began to ask basic questions starting with the professionals in my field of work and explored how one could impact capital markets with the outcomes from my enquiry. These preliminary chats were of value and therefore pointed towards the direction I eventually took.

I proceeded to undertake a literature review on the relevant issues. During the process, I kept looking back at why I wanted to do this project in the first place to ensure that I did not go off-track. Soon after, a central theme began to emerge that speeded up the process of identifying the suitable literature. From there onwards, the frequency of me needing to pause and review underwent exponential decay. By the time I had completed the literature review section, drafting the aims, objectives and desired outcomes section turned out to flow sequentially.

The same however cannot be said for the ethical considerations and methodology sections. For even though I already had a clear idea of what I was supposed to do at the strategic level, drafting out the roadmap that would guide me through the objectives to fulfil the aim had remained a mentally challenging and often tedious task. First, I had to consistently put myself in the shoes of the prospective interviewees to gauge whether what I was trying to do with them would stray into sensitive areas and become issues of confidentiality. Second, while triangulation has been a simple concept in theory, implementing it turned out to be in a world of its own.

Finally, the multi-disciplinary approach which I have adopted has no known boundary on its own. In practice, however, time and human capital are limited resources which translated to the necessity of working within a scope. The boundaries of the scope cannot be set arbitrarily, it must undergo an objective process, be tested for logical robustness, and contain sufficient practicality for end users. That in my opinion was one of the toughest challenges in the entire project planning exercise.

Nevertheless, after grilling myself thoroughly through converting my thoughts into written format, I gained a better appreciation of the entire doctoral programme. Most importantly, my confidence in finishing the programme on time improved significantly.

<u>During project implementation</u>: it was at this juncture that I came to fully appreciate the one-year effort that I had put in during the project planning stage. With a robust blueprint in hand, I could align completely with the project plan during execution.

First, there were very few instances where I felt lost or not knowing how to proceed next. Even in those few instances that I needed to pull back and rethink on how to proceed, it was more about having too many options to choose from instead of being unable to come up with any solution.

Take for instance during the selection of expert interviewees. Contrary to most researchers who typically face the problem of locating and acquiring suitable interviewees, I was faced with the happy problem of having too many suitable experts to select from. For that, I had the option of either expanding my interviewing pool to include more REIT experts or maintaining the size of my interviewing pool while filtering out the more passionate experts.

If I were to expand my interviewing pool, it would involve at least three times the initial effort (more travelling and substantial increase in dedicated hours). The advantage would probably be a richer set of data point for analysis. If I opted for the status quo, certain passionate individuals would have to be left out. The benefit from this approach though would be the ability to deploy full concentration on extracting useful insights from the expert interviewees.

In the end, I opted for a balanced approach. Among the suitable expert interviewees who expressed an interest to participate in my face-to-face interviews, I selected a group of 16 REIT experts who expressed willingness to participate in my Delphi interview approach. For the rest of them, I sent out the pilot interviewing questions over the email for them to review.

The comments from the REIT experts who were not involved in the face-to-face interviews were subsequently collated and summarised. This source of information eventually functioned as out-of-sample observations. In the end, the expert pool was utilised optimally, goodwill in relationship maintained and my research bandwidth was not severely compromised.

In addition to that, having in place a robust project plan also enabled me to explain in a very concise manner the rationales and benefits of my research. As I slowly realised during the interviewing stage of the research, being able to explain clearly what I hoped to achieve, why it was important as well as what I intended to execute, turned out to be very crucial.

First, the REIT expert pool consisted of individuals who are subject experts in their professional career. These are people who have very little spare time to allocate for volunteering work. As such, my interviewing proposal invite to them must be concise, incisive as well as captivating. Otherwise, it would be tough to get their genuine buy-in.

Despite having in place a robust project plan, I still ran into the most common challenge that any researcher in the world would encounter, which is how to set the appropriate boundary around the universe of my literature review. On one hand, I aspired to undertake a thorough literature review. That is, one that would cover all if not most of the areas relevant for my research. By doing so, I hoped to minimise the chance of having to reinvent the wheel.

On the other hand, I needed to decide on a reasonable boundary during the literature review for its implementation to be feasible. This boundary however must not compromise the depth of my review. To strike the right balance, I began my literature review with exploring why this research was relevant, followed by the anatomy of business model analysis, the relevant research methodology as well as the associated methods and eventually diving into the factors that affect the valuation of listed REITs.

At the onset, I purposely kept the thread of the literature review to be simple and linear so that it remained streamlined around my research aim. After that, my literature review branched off into multiple directions. The judging criteria for opening a new direction revolved around better clarity in telling a complete story. These iterations went on for multiple rounds until I finally arrived at a point where finer branching would deviate too far away from my core mission. At that point, the appropriate boundary had been reached. The remaining work then revolved around filling up the existing branches with more robust contents.

For this research, having a solid personal network of relevant experts turned out to be exceptionally important. People work with people they like. My personal network alone was never enough to reach out to so many REIT experts. Fortunately, my colleagues' personal networks were also available for the research. Their support and proactive introduction to the appropriate REIT experts turned out to be instrumental.

Finally, this research has also resulted in me appreciating more that upholding research ethics will always be the single most important attribute and ensuring that the interviewees have been kept aware of its existence was even more important. Having a robust research ethics structure in place held a lot of appeal among my interviewees.

Some of my interviewees hold very senior and sensitive positions in their full-time career. They were willing to participate in my research only upon the guarantee of full anonymity. As expected, this group was naturally very concerned with regards to the specific process flow and structure put in place to ensure that none of their identities would be leaked out.

In all, the entire research had demonstrated very vividly that knowing what I want, right down to the specific details has been very crucial. The earlier I reached this stage, the better it would be for the research. There was no doubt that new discoveries would be uncovered during the research process, with potential changes made to data collection methods, result interpretations, and initial assumptions. The key rested with obtaining as early as possible a feasible project implementation strategy and being fully cognizant of what I hoped to achieve during execution. In other words, while the means to attain my mission may change along the way, the mission itself should remain steadfast.

On a personal level, I have always been quick to assess, I am energetic and eager to get on with things. Now, through this process I have become a better listener, a person with greater empathy, able to persist much longer than before in the pursuit of rationales of how things work as well as becoming more open minded to new approaches and value systems.

I am a believer in free market capitalism. Thus far, in my view, free market capitalism has been the best invention by human civilisation for optimising social benefits. Unfortunately, when heavily intervened by the personal and political ambitions of vested interested parties, the actual social benefits have been far from optimised. Resource allocation across most free-market economies has remained at subpar level, where scare capital has been consistently misallocated to "get-rich-quick" assets for the sole benefit of a small group of elites who front run the rest of the retail population. I have personally witnessed all these unethical incidents during the first ten years of my professional career.

To achieve my vision of improving market integrity, I embarked on this doctoral research which aimed at producing a practical toolkit for retail investors to self-educate and eventually protect themselves. With the blessings of my professional supervisor Dr Tony Tan at CFA Institute, I successfully utilised both my corporate and personal resources to execute this ambitious endeavor at the doctoral level.

The end of my doctoral journey will be a milestone for me at the self-actualisation level. With blessings from my company, I have successfully amalgamated my personal experience with the input and counsel of key stakeholders within the capital markets to generate a practical questioning tool kit for the retail investors. I can now proudly declare to myself and to those who share with me what matters for a better and more equitable future that I have responded to my inner calling and have taken the associated steps to fulfil it. Hopefully, future researchers will leverage on what I have started and contribute even more resources to enhance investor education.

7.2 Recommendations

<u>The considerable importance of CG for business model analysis</u>: right from the beginning during the literature review, CG has been repeatedly cited as the most crucial aspect to examine during business model analysis by many authoritative papers. This conclusion was further reaffirmed by the data extracted from the primary research. Finally, this observation also fits in perfectly with what I have personally experienced during my 20 years of professional experience. Even though I had dedicated a relatively heavy portion of the narrative on CG, there is still more room for future researchers to explore in this direction. This is particularly more so for future researchers who cover the REIT business model in other geographies and/or other sub sectors.

<u>Conducting the same research in other geographical jurisdictions</u>: carrying out the same research on REITs listed in Mainland China should provide further insights (Farnworth 2009) given the cultural and regulatory differences. As per this writing, REITs as an asset class was still at its infancy (He & *et al* 2018) in Mainland China. Given the Chinese government's one belt one road infrastructural development ambition (HKEX 2019), I expect the

REIT structure to play a major role soon. Before any meaningful study can be carried out on the effectiveness of the REIT business model in Mainland China however, a sizable sample of listed entities is required. Hopefully, the population of listed REITs in China can reach a critical threshold within the next decade (Chan 2019).

Extending similar research to other parts of the IPO prospectus: this research started off with business model analysis on IPO prospectus and gradually found relevance beyond the IPO settings. This positive surprise has been partially expected given the Pandora box nature of a typical doctoral research. I therefore recommend future researchers to repeat similar studies on other sections of the IPO prospectus.

Extrapolating the research framework to other sectors: my research can also serve as the template for future research of business models in other industries. Indeed, as per this writing, I have appropriately modified and handed over this research template to my research counterparts in CFA Institute and ACCA to generate a similar but scaled down version of the business model questioning frameworks across 20 other industries in APAC.

We are now on an advocacy road show across APAC that is expected to last for at least five years and cover more than 10 cities. Given the high adoption rates of our industry questioning frameworks among our fellow members and users on the ARX platform, the positive impact on investor education and market integrity have been highly encouraging.

Interpretivist methodology as a possibility for research within the domain of business and finance: my research has demonstrated the possibility of undertaking a robust piece of research within the sphere of business and finance through adopting the interpretivist approach. Most research within the domain of business and finance has been driven by the positivistic paradigm. The positivistic approach usually attempts to come up with a clear causality relationship to explain how business modelling has evolved. Such an approach inherently assumes everything in the world happens for logical reasons supported by metrics.

However, when the causality relationships are forcibly extrapolated to explain future incidents, the results have often been mixed. This is hardly surprising. Afterall, the social universe of business and finance hardly resembles a laboratory experiment. Even though history may repeat itself, the contextual factors influence the configuration of the patterns and the detail. This greatly erodes the practicality of many causality relationships uncovered from positivistic research.

This is where interpretivist research which focuses more on understanding how each key stakeholder tends to interpret the world differently might serve as a strong complement to understand how certain events within the capital markets may evolve. As interpretivist research is not fixated on generating panacea-like causality relationships, the associated researchers are free to think of out the box to explore alternative explanations.

<u>Exploring the art of human communication during due diligence</u>: as mentioned at the end of Chapter 6, the three expert validators have used my questioning framework to "interrogate" the management of listed companies. All three of them were able to invoke non-verbal but highly valuable body language signals from the management. Considering this, future researchers canleverage on the domain of behavioural psychology to create a system of questioning that specialises on extracting non-verbal clues from management.

Finally, in the not-so-distant future, I intend to **leverage my doctoral research to generate a questioning framework that can cover new age tech giants**. These would include organizations such as Alibaba, Amazon, Facebook, Google, Tencent and Tesla. These tech giants are no doubt going to remain as the global juggernauts of technological revolution, at least for the next decade or so. Because of that, many generations of retail investor money have been or will be ploughed into them. To accomplish this new mission, I will work with a team of collaborators and once again undergo a deep dive into primary research to seek out ground insights from the practitioners that have established careers in the tech sector. This research has laid some of the groundwork for such an ambition.