

# **Gordon Institute of Business Science**

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## **Competitive advantage and partnerships: business model innovation within multi-sided platform firms**

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## Abstract

Business model design and innovation has been identified as a powerful tool for creating competitive advantage, yet empirical studies which identify the mechanisms for creating this competitive advantage are largely absent in the literature. Coupled with this, innovative multi-sided platform firms that depend on the resources of partners have grown to be some of the most valuable firms in the world, disrupting entire industries in the process. However, there is a dearth of empirical studies on business model design strategies that confer competitive advantage on multi-sided platforms.

This study explores the business model design and innovation strategies used by owner-managers of multi-sided platforms to create competitive advantage. Data was collected through 13 in-depth, semi-structured interviews with the owner-managers of South African multi-sided platforms. This study found that partners and customers play an important role in co-creating value and influencing the design of multi-sided platforms. In order to create competitive advantage with their business models, the owner-managers in the study used four broad, non-exclusive business model design and innovation strategies. These comprised: design differentiation strategies, value creating innovation strategies, building network effects and locking in customers and partners through relationship management strategies.

This study contributes to the literature by identifying business model design strategies that are utilised to create competitive advantage. The study also highlighted the importance of “ecosystemic” thinking in creating multi-sided platforms. A framework is presented that can aid managers in creating multi-sided platform business models that confer competitive advantage.

## Keywords

Business Models, Multi-sided Platforms, Business Model Innovation, Competitive Advantage, Ecosystems

## Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Neil Sinclair

6 November 2017

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# Chapter 1 – Introduction to the research problem

## 1.1. Introduction

This study explores business model design and innovation in multi-sided platform firms in South Africa. Through an exploratory study, it identified a number of business model design and innovation strategies that multi-sided platforms firms use to create competitive advantage within the ecosystems in which they operate.

## 1.2. Background to the Research Problem

Disruption is the status quo and an ability to adapt to change through innovation is vital if firms are to survive in the contemporary business environment. However, exclusively focusing on product or service innovation is no longer sufficient (Teece, 2010). Gassmann, Frankenberger and Csik (2013, p.1) stated, “In the future, competition will take place between business models, and not just between products and technologies.” Four of the five most valuable firms in the world (PWC, 2017) have seized their places at the top through innovative business models that utilise the resources of their partners to create value for customers. One of the most innovative GPS navigation startups in the world, Waze, managed to leapfrog established competitors through an innovative business model – by leveraging the smartphones of the community of their customers to provide high quality navigation services (Fréry, Lecocq and Warnier 2015). Apple’s business model innovation created through their iTunes store, and later app store, has undoubtedly played a role in their current dominant position in the market (Johnson, Christensen and Kagermann, 2008) and Proctor and Gamble (P&G) saw a massive growth in their revenue and profits through a business model innovation that utilised partners to design new products (Brown and Anthony, 2011).

The design and innovation of business models is seen by many authors as vital for firms developing sustained competitive advantage (Voelpel, Leibold and Tekie, 2004; Zott and Amit, 2008; Teece, 2010; Markides and Sosa, 2013; Cortimiglia, Ghezzi and Frank, 2016). The fastest growing firms in the disruptive contemporary business environment are the ones who innovate their business models (Casadesus-Masanell and Ricart, 2010); this is evident when noting that roughly 40% of companies in the last quarter of the 20<sup>th</sup> century made their way onto the Fortune 500 list through business model innovation (Johnson et al., 2008). In a fast-changing world, some authors have gone as far as to suggest that business model innovation may be as, or more, important for securing competitive advantage for firms than product innovation (Teece, 2010;

McGrath, 2010; Taran, Boer and Lindgren, 2015). This is evident when one takes note that the same strategy or value proposition can be operationalized through different business models (Zott and Amit, 2008) and the choice of business model used can be instrumental in determining the success or failure of a firm's strategy (Chesbrough, 2010; Teece, 2010).

### **1.3. The Research Problem**

Being aware of the business model construct allows managers to understand the logic of how their businesses operate and provides them with tools to experiment with (Baden-Fuller and Mangematin, 2013). Understanding the business model concept – and how it can be innovated - also opens up numerous pathways for managers to find innovative ways to operationalize their strategy (Chesbrough 2010; Baden-Fuller and Morgan, 2010). The same value proposition can be delivered through many different business models (Chesbrough, 2010; Teece, 2010) and therefore the subtle differences in firms' competing business models may be the cause of significant differences in their performances. As new technological innovation grows in importance for firm success, innovative business models are seen as an essential construct that mediates the performance of new innovations (Baden-Fuller and Haefliger, 2013).

However, in contrast to the importance placed on business model design and innovation by scholars, research in the field is still lacking. In interviews with experts, Wirtz, Pistoia, Ullrich and Gottel (2016) identified business model change and evolution, innovation and model design as the top three areas that are in need of further research. Even with academics noting the importance of business model innovation, the business model literature has largely ignored how to create innovative business models (Taran et al., 2015; Spieth, Schneckengerber and Ricart, 2014) or how the process of business model innovation unfolds (Landua, Karna and Sailer, 2016). Furthermore, although the ability of innovative business models to create sustained competitive advantage is often extolled in the literature, few authors suggest how this competitive advantage is created or sustained. Consequently, although numerous authors note the difficulty of protecting business model innovations from competitive imitation and the importance of doing so (Teece, 2010; Desyllas and Sako, 2013), few authors suggest tangible ways of protecting these innovations from imitation. As competitive advantage is instrumental for the long-term sustainability of businesses, it is of great value to both academics and managers to understand how business models that confer competitive advantage are created.

The literature makes a number of paradoxical claims regarding business model innovation. On the one hand as noted above, it is argued that business model innovation is a vital ingredient for firms seeking to create competitive advantage (Teece, 2010; Voelpel et al., 2004; Zott and Amit, 2008; Markides and Sosa, 2013; Cortimiglia et al., 2016), yet on the other hand, numerous authors make note of the ease with which business models can be transferred from one setting to another; across businesses and even across industries (Teece, 2010; Baden-Fuller and Morgan, 2010). It is argued that managers who are familiar with the elements of the business model are able to more effectively innovate their businesses (Sandulli and Chesbrough, 2009) which suggests that knowledge of the business model concept should make it easier for managers to analyse, understand and potentially imitate other's business models.

Firms are increasingly utilising the resources of external partners to operationalise their business models and compete in competitive markets (Sandulli and Chesbrough, 2009; Lindgren, Taran and Boer, 2010). Multi-sided platforms, which generate value by connecting two or more sides, represent an extreme example of utilising external partners' resources as part of the business model. However, through building a business model around the exploitation of resources in abundant supply, termed 'ordinary resources' by Fréry et al. (2015), firms run the risk of creating business models that cannot confer competitive advantage. This is because, as the resource-based view (RBV) of strategy states, resources can only be a source of advantage if there are isolating mechanisms that prevent their diffusion throughout an industry (Rumelt, 1984). Therefore, any asset or process which can easily be acquired or imitated is not able to confer competitive advantage on the acquirer (Barney, 1991; Grant, 1991). And herein lies the paradox – if a business model is easy to imitate or relies on the ordinary resources of a multitude partners, it should not be able to create competitive advantage; yet innovative multi-sided platforms have grown to dominate global markets in recent years (PWC, 2017). It is therefore proposed that understanding the business model design strategies used by multi-sided platforms and examining the role of partners in the design and innovation of these business models may provide answers to this paradox.

## **1.4. Research aims**

This research aimed to understand the business model design and innovation strategies employed by multi-sided platforms to create competitive advantage. Although the current theory base suggests business models, through their design and innovation, can be a source of competitive advantage (Voelpel et al., 2004; Zott and Amit, 2008; Teece, 2010; Markides and Sosa, 2013; Cortimiglia et al., 2016), empirical investigations into how this

is done are largely absent from the literature. Due to the boundary spanning nature of business models (Zott and Amit, 2010) and the utilisation of external partners' resources in multi-sided platforms, the research also aimed to understand how business model design and innovation occurred within the value networks of the firms in the study.

## **1.5. Scope of the Research**

This scope of the research was restricted to understanding business model design and innovation of multi-sided platform firms in South Africa. Because of their reliance on the ordinary resources (Fréry et al, 2015) of partners for the execution of their business models, it was believed that multi-sided platforms would yield rich insights into competitive advantage strategies built through the business model designs of these firms. Furthermore, it is suggested that the South African context may provide insights on the transferability of business models (Teece, 2010; Baden-Fuller and Morgan, 2010) from one context to another.

## **1.6. Significance of the Research**

Prior research suggests that open business models – ones that leverage the resources of external partners to create and capture value – can lead to superior firm performance (Chesbrough, 2003; Lindgren et al., 2010; Ghezzi, Balocco and Rangone, 2016). Similarly, it is argued that the co-creation of value with partners and customers can lead to greater lock-in (Storbacka, Frow, Nenonen and Payne, 2012; Prahalad and Ramaswamy, 2004) and to the creation of rich ecosystems of interdependent partners (Adner, 2017). Therefore, it is vital to understand the role of partners in shaping the business model of the 'focal firm' - i.e. the firm that is the focus of the business model under study - if one is to understand how to create competitive advantage with a firm's business model. This study therefore aims to enrich the business model literature by providing insight into the role of external partners on multi-sided platform business model design and innovation. Moreover, from a managerial perspective, it is intended to aid managers in formulating engagement strategies with partners to create better business models. The choice of multi-sided platforms, as business models that rely extensively on the resources of external partners, is suggested to aid in understanding the role of partners in the design and innovation of a broader range of business models.

Although the ease of transferring business models from one context to another has been noted in the literature (Teece, 2010; Baden-Fuller and Morgan, 2010), the challenges of doing so have mostly been limited to an understanding of internal company or managerial challenges (Christensen, 1997; Gassmann, Enkel and Chesbrough, 2010;

Teece, 2010). This research sought to understand the challenges and enablers of implementing multi-sided platform business models in South Africa that had arguably been proven internationally. It is proposed that this will add to the academic discussion on competitive advantage and business models by discovering environmental challenges to the transfer of business models from one setting to another. Through the identification of these challenges, this will develop a deeper understanding of the limitations of transferring business models from one setting to another. Conversely, through the identification of enablers, it is proposed that this will aid in understanding the environmental – or ecosystemic (Moore, 1993; Adner, 2017) – conditions that support business model transfer from one setting to another. From a business perspective, the research aims to guide managers in assessing the environmental context before designing and implementing new business models.

As noted throughout this chapter, although business model design and innovation is proposed as a tool for creating competitive advantage, the RBV presents a number of limitations and paradoxes to these assertions. Arguably easily transferable from one context to another (Teece, 2010; Baden-Fuller and Morgan, 2010) and relying on the ordinary resources of partners (Frery et al., 2015) multi-sided platform business models may be without isolating mechanisms (Rumelt, 1984) to prevent imitation. Therefore, multi-sided platforms should not confer competitive advantage; however, in some cases they have disrupted entire industries. This paper aims to add to the academic literature by exploring the strategies that owner-managers use to create competitive advantage with their business models. Because the business models in the study likely do not create competitive advantage through rare, inimitable resources (Barney, 1991) it is proposed that the research can elucidate how the business models themselves are designed to create competitive advantage. From a business perspective, it is proposed that this will aid managers in designing better business model innovation strategies. Through this, managers may be able to realise the promise of creating competitive advantage through business model innovation.

## **1.7. Conclusion**

This chapter has presented an introduction to the research paper. Through highlighting the importance of business model design and innovation as a tool for creating competitive advantage, a case was made for the research that follows. The success of business models that leverage ordinary resources (Fréry et al., 2015) when coupled with the proposed ability of business models to create competitive advantage (Teece, 2010; Voelpel et al., 2004; Zott and Amit, 2008; Markides and Sosa, 2013; Cortimiglia et al.,

2016) was suggested as paradox that resides in the literature when viewed from the RBV perspective. The introduction suggested that multi-sided platforms are types of open business models that confer competitive advantage through leveraging external resources, therefore transcending this paradox. In order to examine this paradox, this research paper sought to understand the business model design strategies used to create competitive advantage with multi-sided platforms and the role of partners in business model design and innovation. The chapter closed with the proposed significance of the study.

The research paper proceeds as follows: chapter two presents an overview of the literature as it relates to business models; chapter three presents the research questions that form the basis of this study; chapter four outlines the methodology used to collect and analyse the data in this study; chapter five presents the results; chapter six presents the discussion of the results; and chapter seven closes with the business and academic insights derived from the results, followed by suggestions for further research.

## Chapter 2 – Literature review

### 2.1. Introduction

This chapter reviews the relevant literature as it relates to business model innovation and design. The chapter starts by stating the numerous perspectives that exist in the literature on the business model construct. It then explores the literature associated with open business models, and multi-sided platforms in particular, in order to provide insight into the characteristics of the sample used in the study. This is followed by a definition of the innovation concept before providing an overview of the business model innovation literature. The chapter closes with a discussion of some of the key concepts developed around competitive advantage and relates these to the business model literature.

### 2.2. Business Models

Whether it is articulated or not, every firm has a business model (Chesbrough, 2007; Magretta, 2002). Although use of the “business model” term has grown over the past two decades, there is still significant theoretical ambiguity surrounding the construct (Teece, 2010); however, as time progresses, understanding of the term is converging (Wirtz et al., 2016). A business model “elucidates how an organization is linked to external stakeholders, and how it engages in economic exchanges with them to create value for all exchange partners” (Zott and Amit, 2007, p. 181). Zott and Amit (2007, 2010) have noted that a business model describes the boundary spanning logic of value creation and capture of a firm. This boundary spanning concept takes cognisance of the role that external partners play in the value creation activities of a firm and places the firm within a wider business ecosystem (Moore, 1993; Zott and Amit, 2010; Adner, 2017). In an overview of the literature, Wirtz et al. (2016) suggested that the business model is a conceptual framework for organizing value creation that takes into account both internal and external factors. Casadesus-Masanell and Ricart (2010, p. 196) saw the business model as the general “logic of a firm, the way it operates and how it creates value for its stakeholders.” Johnson et al. (2008) saw the business model as being an essential tool for expanding and securing competitive advantage. The term has grown in use exponentially since the burgeoning of the e-commerce companies of the dotcom era at the turn of the century (Teece, 2010; Zott and Amit, 2008; Demil and Lococq, 2010). It has become increasingly useful as a tool to explain to investors and partners how a business works; to provide guidance to support the management of a firm’s operations; and to identify opportunities in the market to create competitive advantage (Spieth et al., 2014). Baden-Fuller and Morgan (2010) looked at business models as



conceptual models that open up the possibility for experimentation with their structure. They saw business models as recipes, where skilful innovators could craft “generic” ingredients into powerful business models, in the same manner as a star chef can create exceptional meals with basic ingredients.

### 2.2.1. Business Model Components

Figure 1 below shows a number of the key definitions from the literature, the components that comprise the business model and the stated logic of the business model concept.

*Figure 1: Business Model Components from the Literature*

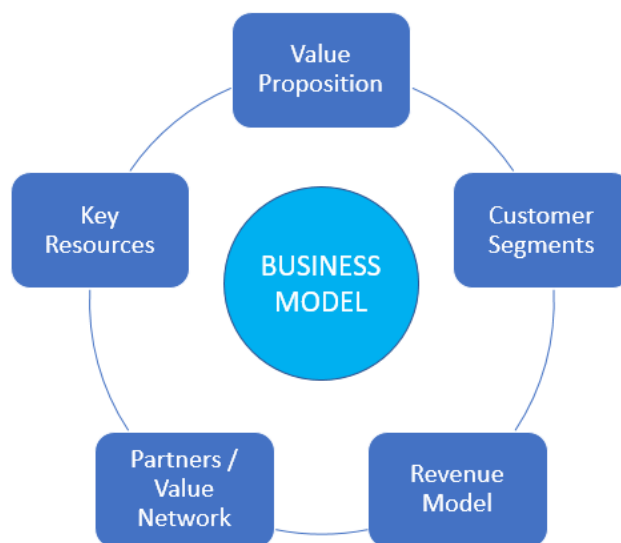
Author(s)	Key Components	Logic
Voelpel et al. (2004)	Core value proposition for customers (what and to whom) Configured value networks – with own and partners’ strategic capabilities (value networks) Leadership qualities (management)	“The model should enable the creation of value for customers and participants in its value chain... a total ‘system’ value that is higher than the sum total value from its individual parts” (p. 261)
Johnson et al. (2008)	Value proposition (what and to whom) Profit formula (revenue model) Key processes (resources/capabilities) Key people (resources)	“...consists of four interlocking elements that, when taken together, create and deliver value” (p.52)
Zott and Amit (2007) Zott and Amit (2010)	Design Themes: Novelty-centred, Lock In, Complementarities and Efficiency-centred Content (what) Structure (how) Governance (who – the participants in the value chain)	“A business model elucidates how an organization is linked to external stakeholders, and how it engages in economic exchanges with them to create value for all exchange partners.” (Zott and Amit, 2007, p. 181)
Demil and Lecocq (2010)	Resources and competencies Organisational structure (value chain and value network) Customer Value Proposition	The different activities a company employs to generate value and the mechanisms it uses to create and capture value
Chesbrough (2010)	Value proposition Market segment Revenue Model Structure of the value chain Firm’s position in the value chain Cost structure and profit potential Formulates competitive strategy	The business model describes how the components of the model (the business) work together
Teece (2010)	The offering (product/service) The customer benefit / value proposition	“A business model articulates the logic and provides data and

	<p>Target market</p> <p>Revenue streams</p> <p>Value capture mechanisms</p>	<p>other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits associated with the business enterprise delivering that value.” (p. 173)</p>
Baden-Fuller and Haefliger (2013)	<p>Customer identification</p> <p>Customer engagement (how the product/service is delivered’)</p> <p>Value delivery (value network)</p> <p>Monetization (revenue model)</p>	<p>The business model links the 2 dimensions of firm capacity – i.e. value creation and value capture</p>
Gassmann et al. (2013)	<p>Who (customers)</p> <p>What (value proposition)</p> <p>How (value chain)</p> <p>Value (revenue model)</p>	<p>“The unit of analysis to describe how the business works” (p.1)</p>
Dmietriv, Simmons, Truong, Palmer and Schneckenberg (2014)	<p>Value proposition and target market (customer)</p> <p>Revenue Model and Cost structure (revenue model)</p> <p>Partners’ network (value chain)</p> <p>Production facilities and complementary assets (resources)</p>	<p>“elements, which are integral... to both the conceptualization of value and organizing value for customers... a general logic of doing business” (p. 307 – 308)</p>
Taran et al. (2015)	<p>Value proposition</p> <p>Target customers</p> <p>Customer relations/channels</p> <p>Value chain architecture</p> <p>Core competencies</p> <p>Partner Network</p> <p>Profit formula</p>	<p>“...a model of the way in which a company creates and delivers value so as to generate revenue and achieve a sustainable competitive position.” (p.306)</p>
Cortimiglia et al. (2016)	<p>Value proposition</p> <p>Value delivery (value proposition, channels)</p> <p>Value creation (resources &amp; activities)</p> <p>Value network</p> <p>Value appropriation (revenue &amp; cost stream)</p>	<p>Zott and Amit (2007) logic</p>
Wirtz et al. (2016)	<p>Resources</p> <p>Networks</p> <p>Customers</p> <p>The offering/Customer Value Proposition</p> <p>Revenue Model</p> <p>Processes for value creation</p> <p>Financial model (cost structure)</p>	<p>“The link between future planning (strategy), and the operative implementation (process management)” (p. 38)</p>

Based on the analysis of the table above, this paper will employ the following conceptualization of the business model based on these commonly used components:

- Customer Value Proposition
- Customer Target Segment
- Value Network: this includes the focal firm’s partners and where it fits into the value chain as well as its distribution network
- Revenue model: this includes the cost structure of the firm
- Resources and Capabilities

*Figure 2: Business Model Construct*



Although “Resources and capabilities” is noted less than the other four constructs mentioned in the above table, numerous authors see resources and capabilities as inputs into a firm’s business model (Rajala, Westerlund and Moller, 2012; Markides and Sosa, 2013; McGrath, 2010; Wirtz et al., 2016; Dmitriev et al., 2014). Although different firms with the same resources can operate through different business models and the same firm can leverage their resources to operate through multiple business models (Chesbrough, 2010), without resources a business model is just an idea. Furthermore, the resource-based view (RBV) of strategy has been used as one of the theoretical foundations to conceptualize the business model concept (Amit and Zott, 2001) and “resources and capabilities” are therefore seen as a valuable part of the concept.

It is argued that the effectiveness of good business models is derived from a strong configurational fit between the different parts of the business model (Storbacka, Frow, Nenonen and Payne, 2012). This argument is supported by Frankenberger, Weiblen and

Gassmann (2014) who stated that consistency between the business model components drives competitive advantage as it is more difficult to copy a diverse set of interlocked business components than it would be to copy one or two separate components or processes. Similarly, Sorescu, Frambach, Singh, Rangaswamy and Bridges (2011) stated the need for the interdependencies between the parts of a firm's business model to support each other in order for a business model to be successfully implemented.

Amit and Zott (2001) identified four business model design themes when they analysed ecommerce firms, these were: novelty – connecting partners and customers in new ways; lock-in – locking customers and partners in with the business model design; complementarities – creating more value by bringing services together; and efficiency – lowering transaction costs with the business model. In a later paper, Zott and Amit (2008) showed how a business model with a novelty-centred design could lead to higher firm performance. As multi-sided platforms increasingly connect previously unconnected parties, this suggests that, through their novelty-centred design, they have the potential to lead to higher performance over more traditional business models.

### **2.2.2. The Business Model and Strategy**

The business model and firm strategy are seen as distinct, but related and complementary concepts in the literature, with tactics seen as the residual choices created by implementing a business model (Casadesus-Masanell and Ricart, 2010). The business model is also seen as the means through which strategy is operationalised (Cortimiglia et al., 2016) and as a contingency that affects the success of a firm's strategy; this is evident in that firms meeting similar customer needs or pursuing similar strategies may have completely different business models (Zott and Amit, 2008). Sorescu et al. (2011) stated that the same strategies can be implemented through different business models, whereby changes to a business model can be made within an existing strategic framework.

Importantly, Zott and Amit (2010) noted that the business model choice of a firm defines who that firm's competitors are. For example, if a firm invents a new digital imaging technology and chooses to commercialise that technology by manufacturing cameras, they will go head to head with other camera manufacturers and will sell their product to retailers. However, if the firm instead chooses to license the technology to manufacturers, the manufacturers would become their partners or customers of the firm and would cease to be competitors. It is therefore valuable for managers to consider the consequences of their business model choices on the wider competitive ecosystem in

which they operate and to wisely choose the best business model to support their competitive strategy and capabilities.

## **2.3. Open Business Models**

Higher levels of competition in markets is making it more difficult for firms to be effective individually and hence firms are increasingly leveraging the core knowledge and resources of external partners in order to compete (Sandulli and Chesbrough, 2009; Lindgren et al., 2010). To this end, firms are increasingly utilising open business models to leverage these external resources. The open business model has been conceptualised along two separate theoretical foundations, with open innovation informing its study on the one hand (Chesbrough, 2003; Ghezzi et al., 2016) and business model theory informing its study on the other (Frankenberger et al., 2014; Holm, Gunzel and Uihøi, 2013, Sandulli and Chesbrough, 2009). Although much of the open innovation literature has played a role in informing the business model foundation of open business models, these two concepts are still seen by some authors as distinct phenomena (Holm et al., 2013). Frankenberger et al. (2014) stated that “Open business models describe the value of integrating ideas, knowledge, and resources from external partners into the business model of the focal firm” (p. 173). They saw a business model as being open if the collaboration between the focal firm and the various actors in its ecosystem comprised a novel or important element of the value creation and capture of the focal firm’s business model. It is argued that open business models lead to superior firm performance through decreased R&D costs, shorter time to market, reduced innovation risk (Chesbrough, 2007); increased product and service differentiation, efficiency-related cost reductions (Ghezzi et al., 2016); and greater access to resources, ideas and potential markets (Lindgren et al., 2010). It is vital to note that almost every single business model exists along a continuum of openness, with a business model such as Ford’s absolute vertical integration sitting on the one extreme of the continuum and asset-light business models like that of eBay’s sitting on the other.

### **2.3.1. Multi-Sided Platform Business Models**

An extension of the open business model concept is that of the multi-sided platform business model. A multi-sided platform connects two or more distinct but interdependent groups of customers and enables transactions between them (Hagiu and Wright, 2015; Muzellec, Ronteau and Lambkin, 2015). One of the distinct features of multi-sided platforms is that they tend to exhibit network externalities – where the value of the platform increases with the number of people using it (Katz and Shapiro, 1985; Rochet

and Tirole, 2003; Hagiu, 2014; King, 2013). Hagiu and Wright (2015) have argued that two distinguishing features of multi-sided platforms comprise:

- 1) The enabling of direct interactions between the different sides using the platform
- 2) Each side being affiliated with the platform through some form of platform-specific investment. This consists of a monetary fee for use of the platform or resources expended to use the platform, such as time and money spent learning how to use the platform

Through the enabling of direct interactions between sides, the provider of services on the platform (the seller) controls the nature and quality of the services offered to the other side (the buyer). For the purposes of further clarity, if the one side retains residual control over the service or product provided to the other side, the two sides are engaging in a direct interaction (Hagiu and Wright, 2015). A digital game console, such as Microsoft's Xbox provides a clear example of the above distinguishing features. The game console connects gamers and game developers, through a direct transaction where the gamer buys and uses the game. Secondly, the gamer has had to invest in learning how to use the Xbox and has had to purchase it; and the game developer has had to invest time learning how to use the platform's software development kit to make the game.

Multi-sided platforms are seen to create barriers to entry for competitors through the creation of network effects where a greater number of users on the platform leads to a greater amount of value in using the platform (Rochet and Tirole, 2003; Katz and Shapiro, 1985). This in turn suggests that by getting the most users onto their platforms, multi-sided platforms can pursue a winner-takes-all (WTA) strategy, locking competitors out of the market (Cennamo and Santalo, 2013). However, it has been shown that a WTA strategy is not universally successful and that multiple multi-sided platforms can coexist if they are of sufficient quality and occupy distinctive positions (Cennamo and Santalo, 2013). However, whilst multiple multi-sided platforms may coexist, they will simultaneously face the problem of multi-homing, where users may utilise multiple platforms simultaneously, thereby influencing price competition between platforms to get users to utilise a platform (Rochet and Tirole, 2003).

Multi-sided platform business models have risen to prominence over the past two decades, enabled through the evolution of information technology and the internet (Muzellec et al., 2015). As noted in chapter one, a 2017 PWC report identified that four of the top five companies in the world by market capitalisation utilise platform-based business models; furthermore, five of the top ten largest absolute increases in market

capitalisation for 2017 came from platform firms (PWC, 2017). These companies include Apple, Alphabet, Microsoft, Amazon and Facebook. This statistic poignantly highlights the importance of platform business models as a globally powerful logic underlying the value creation and capture of firms.

The logic of a successful platform business model can be explained through the example of Apple's iOS platform. Much of the value created on Apple's mobile platform has been created by the multitude of partners who are able to develop applications (apps) for this open platform. Apple are able to offer developers access to a large number of customers who use their high-end mobile devices and in turn, these developers invest their resources into developing apps for the Apple ecosystem. This expands the value of the Apple ecosystem at almost no cost to Apple whilst also allowing Apple to capture a significant portion of this additional value created. It is a powerful attribute of open business models that they can increase the value created and captured for the entire value network (Sandulli and Chesbrough, 2009).

*Figure 3: Examples of Multi-Sided Platforms*

<b>Platform</b>	<b>Side 1</b>	<b>Side 2</b>
Google (Search Platform)	Consumers searching for products or services	Advertisers
Microsoft (Windows)	Software users	Software developers
eBay	Sellers selling goods	Buyers buying goods
AirBnB	People looking for short-term accommodation	Home owners looking to rent out their homes
Facebook	Facebook Users	Advertisers; App developers
oDesk	Freelancers	Companies looking for extra, short-term capacity

Although there is a noteworthy body of research relating to multi-sided platforms from a network economics perspective – especially with regards to network effects and pricing considerations (e.g. Rochet and Tirole, 2003; Parker and Van Alstyne, 2005; Hagiu, 2014) – there is a dearth of research on multi-sided platforms from a business model perspective. The remainder of this section covers some salient discoveries from the open business model literature.

### 2.3.2. Conceptualising Openness

The degree of openness of business models has been conceptualised along a variety of different, but related constructs. Holm et al. (2013) had conceptualised business model openness as comprising four dimensions:

- Broad: dependence on multiple partners to implement the business model
- Deep: a high degree of dependence on one or more partners to implement the business model
- Inward: assets are acquired externally to implement the business model
- Outward: the focal firm provides assets to external partners to implement their business model(s)

This conceptualisation aims to understand how the focal firm's business model interacts with partners in its value network. Although the work of Holm et al. (2013) was inspired by Chesbrough (2007) in their thinking of open business models, they replaced his idea of firms sharing intellectual property (IP) "inward-out" and "outward-in" with the idea that firms using open business models share assets, as opposed to IP, either inwardly or outwardly. They argued that a key element in creating an effective open business model is to ensure that the focal firm finds partners that have the complementary assets that they need.

Frankenberger et al. (2014) conceived of business model openness along the dimensions of the focal firm's "dependence on openness" and the "locus of openness". In contrast to the conceptualisation by Holm et al. (2013) above, Frankenberger et al. (2014) focused more on the degree to which external parties interact with internal elements of the focal firm's business functions. Their focus was on how many business functions are influenced by the open business model and how deeply they are influenced by external partners. Similar to Chesbrough (2007), they saw open business models as comprising a dimension of innovation, but they built further upon this conceptualisation by adding additional business functions over and above R&D into their conceptualisation of openness.

Using a simpler conceptualisation of business model openness than Holm et al. (2013), Sandulli and Chesbrough (2009) viewed the business model as being open solely along the dimensions of breadth (number of partners) and depth (the intensity and specificity of the relationship).



### **2.3.3. Co-creation**

Co-creation occurs when partners or customers play an active role in value creation with the firm (Prahalad and Ramaswamy, 2004). As a firm's business model becomes more open, the firm begins to engage more deeply in the process of co-creation with its partners in the value network. The act of participating in co-creation requires the firm to design its business model in order to allow other actors the opportunity to participate in specific activities of the focal firm (Storbacka et al., 2012). This can lead to the creation of an ecosystem of interdependent partners connected with the focal firm (Muzellec et al., 2015; Adner, 2017) working together to create value for customers. The value co-creation ecosystem also necessitates that the focal firm considers not only its value proposition for its customers, but also its value proposition for the other actors within its value network (Storbacka et al., 2012).

Saebi and Foss (2015) identified lead users as playing a key role in co-creating new value propositions with the focal firm. Furthermore, the authors saw the level of co-creation required by firms to create value as the driving force behind the level of openness of the firm's business model. This in turn suggests that the greater levels of co-creation require more open business models. This notion of 'levels of openness' is applicable to firms that are not pure-platforms – i.e. where the focal firm owns part of one of the sides of the market. Amazon is a good example of this as they act both as a retailer and as a platform that allows retailers to sell through the platform (Hagiu and Wright, 2015). Firms engaging in collaborative efforts may therefore have business models that are more permeable than those that do not collaborate (Holm et al., 2013).

A salient advantage of creating a more open business model is that the co-creation inherent in the open structure creates a greater degree of complementarity between the focal firm's assets and products and that of its partners and suppliers; this increased complementarity in turn leads to greater lock-in of partners which is suggested to create a competitive advantage for the focal firm (Sorescu et al., 2011). Similarly, co-creating value with customers is seen as a means of safeguarding products against commoditization, as personalised co-created experiences have greater value for customers (Prahalad and Ramaswamy, 2004).

### **2.3.4. Relationships**

It is argued that relationships between partners are one of the key ingredients in open business models (Rajala et al., 2012). As business models become more open and the breadth of the relationships expands, the ability of the focal firm to manage its

relationships between its partners becomes vital to the effectiveness of the open business model (Berglund and Sandström, 2013). These relationships are important for managing the stability of the network and are also important for managing the sharing of resources and IP between partners. It is argued that an appropriability regime based on shared trust, information sharing, reciprocity, joint decision making, and joint asset ownership is more likely to be successful in an open business model network than one which is solely based on legal IP rights protection (Berglund and Sandström, 2013).

### **2.3.5. Challenges of Open Business Models**

Creating business models that are more open makes the focal firm more dependent on the assets of third parties, which places the sustained functioning of their business model at a greater risk from the actions of partners in the value network (Holm et al., 2013). This increased dependence on partners can also decrease the focal firm's ability to capture the value created within the open business model network (Ghezzi et al., 2016). Ghezzi et al. (2016) have suggested that the main barriers to value capture for open business models include IP management and protection costs required to prevent opportunistic behaviour by others in the network; high transaction costs when there are many partners; co-opetition coordination costs; and the need to setup revenue sharing incentive schemes.

The cohesion and stability of the network of partners is seen as essential for the effective operation of all partners' business models, but can become a challenge as the size of the network grows (Berglund and Sandström, 2013). This can be achieved more easily if there are standards for operating between the partners (Sandulli and Chesbrough, 2009), less partners in the network or if there is a strong lead partner who sets the common value of the wider network of partners (Lindgren et al., 2010).

Storbacka et al. (2012) argued that within an open business model as much focus needs to be placed on the inter-actor configurational fit of the business model components as must be placed on the internal configurational fit of business model components. Similarly, Lindgren et al. (2010) believed that firms wishing to innovate successfully in open networks had to adapt their own business model to suite the cumulative network-level business model.

Utilising an open business model leads to considerations of the appropriability regime (Teece, 1986) within which the business model exists. The appropriability regime (Teece, 1986) considers how much value a firm is able to appropriate from an innovation within the context of the IP protection available and the difficulty competitors face in

replicating the innovation. When IP protection is strong and an innovation difficult to copy, the appropriability regime is considered strong; when the IP protection is weak and the innovation easy to copy, the appropriability regime is considered weak. An innovation can be difficult to copy if the know-how behind it is difficult to extract or if it is commercialised through co-specialised assets that are not in abundant supply (Teece, 1986). Desyllas and Sako (2013) suggested that business models operate within weak appropriability regimes and that without control of co-specialised assets to support the business model, a firm's ability to capture value from the business model may be limited. Due to the difficulty in patenting a business model (Teece, 2010; Desyllas and Sako, 2013) firms may struggle to appropriate value through open business models unless their position in the value network allows them to control a vital asset for the operationalisation of the business model. Although firms may benefit from greater asset utilisation through open business models (Holm et al., 2013) and have greater access to ideas (Lindgren, 2010), they may also be at risk of capturing less value when partners control key assets for creating value in the network.

## **2.4. Innovation**

Chesbrough (2003, p.1) defined innovation as “an invention that has been implemented and taken to market”. Innovation has been conceptualised as incremental when a product or process is improved upon in small increments at a time; and as radical when innovation in a product or process takes large, often discontinuous steps from its original form (Velu and Jacob, 2014). Most successful radical innovation is seen as disruptive as it initially targets new market segments with a new offering or set of properties that don't initially appeal to mainstream consumers (Christensen, 1997). Over time, as the disruptive innovation is developed, and its performance is enhanced, it comes to redefine the basis of competition within markets and comes to dominate mass market segments. In his seminal work on disruptive innovation, Christensen (1997) argued that successful firms are often very good at conducting incremental innovation that builds upon their core resources and capabilities, but often struggled with radical innovation as this usually required creating and utilising new resources and capabilities such as new technologies, processes and business models. An often-cited concern from managers about disruptive innovation is that these new innovations may cannibalise sales of their existing products (Christensen, 1997; Voelpel et al., 2004; Teece, 2010; Lindgren et al., 2010) and hence resources are often not adequately allocated to their development.

Innovation can also be conceptualised along the dimension of external participation in the innovation activity. Chesbrough (2003), arguably the father of the open innovation

concept, has written extensively about open innovation, whereby the innovation activity within a firm is influenced by external ideas. Along with supporting the flow of ideas from outside-in, open innovation also promotes firms licensing their unused IP outwards, essentially utilising external firms' business models to commercialise their IP (Chesbrough, 2017).

In the case of business models, the term "pivot" was coined to describe significant shifts in the business models of entrepreneurial firms (Ries, 2011). In this sense, a pivot is similar to a radical innovation of the business model of a firm and can represent a new logic of value creation and capture. This leads on to the discussion of business model innovation which follows.

## **2.5. Business Model Innovation**

"The creation of new organisational forms... and in particular new business models are of equal – if not greater – importance to society [than new products], and to business enterprises... without it, technological innovation may be bereft of reward." (Teece, 2010, p.186).

Business model innovation is defined as "...the search for new business logics of the firm and new ways to create and capture value for its stakeholders" (Casadesus-Masanell and Zhu, 2013, p. 464). Because of the disruptive changes that have been brought to the business landscape by globalisation, ICT, deregulation and changing customer preferences, the creation and reinvention of business models is seen as being vital to providing firms with sustainable competitive advantage (Voelpel et al., 2004; Taran et al., 2015; Casadesus-Masanell and Zhu, 2013; Teece, 2010). Markides and Sosa (2013, p.327) stated that "winning the market is not a matter of luck or good intentions. It is the by-product of an innovative business model."

In a world of increasingly fast-paced technological development, creating an innovative product is not, by itself, a guarantee that one will make profit from that innovation; it is often necessary to create an innovative business model in order to capture the value from an innovation (Teece, 2010; Chesbrough, 2010). In fact, Chesbrough (2010, p.355) argued strongly that "a mediocre technology pursued within a great business model may be more valuable than a great technology exploited via a mediocre business model".

The business model has been noted by numerous authors in the literature as a continually changing and evolving system; business model innovation is thus seen as an experimental process requiring a trial and error approach, whereby the final model cannot accurately be assumed ex-ante (Sosna, Trevinyo-Rodriguez and Velamuri, 2010;

Teece, 2010; Chesbrough, 2010; Demil and Lecocq, 2010; Dmitriev et al., 2014). Sustained value creation is seen to rely on successfully shaping, adapting and renewing the business model of a firm on a continuous basis (Achtenhagen, Melin and Naldi, 2013). One of the challenges facing business model innovators is that they must first understand their current business model and the key relationships between the parts before they are able to innovate it (Lindgren et al., 2010).

The process of business model innovation is driven through the reshaping of one or several of the components that comprise the business model (Spieth et al., 2016; Winterhalter, Weiblen, Wecht and Gassmann, 2017). This process leads to a rethinking of the customer value proposition and to a reconfiguration of the value-creating and capturing mechanisms of the firm. A good business model innovation not only captures extra value for the focal firm, but also creates more value for customers and may even open up new markets in the process. A good example of this is the way that cloud computing – especially a service such as Amazon's EC2 – allows companies to hire computing processing time in microseconds, thereby utilising a new pay-per-usage business model. This service opens up supercomputing to entirely new markets who could not utilise this kind of high level computational power before as it required significant capital investment (Teece, 2010).

### **2.5.1. The Importance of Business Model Innovation**

Bustinza, Bigdeli, Baines and Elliot (2015), showed how companies achieved greater financial performance by increasing customer satisfaction and product differentiation by innovating their manufacturing business models to include a greater service dimension. Demil and Lecocq (2010) showed how a well-known football team managed to increase their revenues by 500% over 10 years through innovating their business model. Sorescu et al. (2011) have argued that there is a one percent annual premium on profits from business model innovation over product innovation. There are numerous mentions in the literature of the manner in which companies such as Walmart and Netflix have managed to obliterate their competitors through innovative business models (e.g. Teece, 2010). Ismail, Malone and van Geest (2014) showed how firms can grow at exponential rates over short periods of time through more open business models. These models leveraged many elements of the focal firm's value network; specifically, through creating customer-led communities by adding customers as collaborators; leveraging other firms' assets such as Amazon's EC2 cloud system; and through flexible staffing arrangements by accessing staff on a job-by-job basis through digital employment platforms. Ismail et al.'s (2014) open business models speak to the boundary-spanning nature (Zott and

Amit, 2010) of business models whereby the success of these ‘exponential organisations’ is contingent on the wider business ecosystems in which they operate. Business model innovation is extensively proposed as a tool for creating sustained competitive advantage in the literature (Voelpel, et al., 2004; Zott and Amit, 2008; Teece, 2010; Markides and Sosa, 2013; Cortimiglia et al., 2016) and has been proposed as a contingency that affects the success of strategy. Furthermore, business model innovation is proposed as a way of fighting off competitors (Markides and Sosa, 2013) and as a process that can reconfigure the basis of competition and the economics of entire industries (Velu and Jacob, 2014; Magretta, 2002).

When deciding whether to invest in business model innovation or not, one should consider these words from Chesbrough (2007, p.17), “If [business model innovation] sounds expensive and time consuming, it is. But the better perspective is to evaluate the cost of competing in the market with an obsolete business model, against other companies who made the investments and took the risks to innovate a superior business model.”

### **2.5.2. Barriers to Business Model Innovation**

One of the biggest stumbling blocks to creating innovative business models is that managers spend much of their careers learning the dominant logic of their businesses which is built around the incumbent business model (Gassmann et al., 2013). Compounding this, when businesses are making strong profits from their current ways of doing business, they may not see the need to innovate, especially if the innovation may cannibalize their current market position (Christensen, 1997). This is because entrenched managerial routines can act as barriers to business model innovation and can create organizational inertia; similarly, organisational (un)learning is difficult and the dominant logic of a firm makes it difficult for the firm to envision alternative business models (Voelpel et al., 2004; Chesbrough, 2010; Teece, 2010). As an antidote to this inertia – or a way to reframe the dominant thinking – Chesbrough (2010) suggested that companies should adopt an experimental effectuation approach to their business model innovations. Firms also face a challenge in developing and sustaining dual business models simultaneously as they lack the internal structures for managing and supplying two different business models with resources (Christensen, 1997; Chesbrough 2010).

Along with battling the dominant logic of the firm, managers often struggle to think in terms of business models and don’t have the systematic tools required to develop new business model designs (Frankenberger et al., 2013). Although every company has a

business model it is posited that those who are able to define their business model have a more formal and structured way of adapting it (Sandulli and Chesbrough, 2009).

### **2.5.3. The Process of Business Model Innovation**

The creation of new business models has been shown to be influenced by the previous experience of the founders of the firm, exhibiting a degree of path dependence (Rumble and Mangematin, 2015). Teece (2010) believed that business model innovation often contains a significant tacit component, whereby the innovator intuitively sees the new model and develops it through learning and experimentation. This 'intuitive view' is supported by Storbacka et al. (2012) who see the business model design as based on an intuition about which elements will work together to meet customer needs. In their view of the business model innovation process, Voelpel et al. (2004) suggested that a business model innovator should start by looking to satisfy (new) customer needs; leverage suitable technology to meet these needs; reconfigure internal and external business infrastructure to deliver this new customer value; and finally ensure that this will be economically feasible. Johnson et al. (2008) argued that business model innovation should start with the consumer value proposition – or "job to be done" – and then move onto the profit formula, followed by focusing on new resources and processes that need to be acquired. Dmitriev et al. (2014) on the other hand saw business model innovation as a cyclical and continuous process where elements were considered and adjusted simultaneously. This simultaneous adjustment speaks to the interdependence of the components of the business model (Johnson et al., 2008; Sorescu et al., 2011; Markides and Sosa, 2013; Landua et al., 2016).

Owner-managers were seen in the literature as playing a powerful role in conducting the process of business model innovation through their deep understanding of the multiple facets of the firm (Velu and Jacob, 2014). Furthermore, the cognitive maps of the owner-manager were also seen to play a significant role in the shaping of the firm's business model, with their past experience influencing the trial-and-error approaches taken during business model creation and innovation (Sosna et al., 2010; Rumble and Mangematin, 2015).

To avoid some of the barriers to business model innovation alluded to above, it is suggested that firms can support more radical business model innovations by utilising spinoffs and joint ventures that allow these business models to be developed outside of the focal firm (Christensen, 1997; Chesbrough, 2007b). In this manner, these radical business model innovations can avoid being stopped by the immune system reaction of the dominant logic of the firm (Ismail et al., 2014).

#### 2.5.4. Antecedents of Business Model Innovation

Business model innovation for entry into new markets is seen to be based on customer value propositions that are either “market pull” or “technology push” innovations; the former occurring where a market has been detected before the innovation has been created and the latter occurring with a technology being developed before the market application is realized (Dmitriev et al. 2014). Business model innovation can be driven by the need to commercialize new technologies (Teece, 2010; Chesbrough 2010); to attack incumbents or fend off against new entrants (Markides and Sosa, 2013); or to grow a firm’s customer base by targeting new segments or new markets with extant, incremental or radical new products that require new business models for commercialisation (Taran et al., 2015).

Dmitriev et al. (2014) saw business model innovation as being triggered by internal elements, such as changes in the financial structure of the model due to the need to leverage a partner network to access needed resources, such as production capacity. Similarly, the authors saw external forces such as changing (growing) demand, geographical diversification and technological developments as drivers of business model change.

Looking at internal factors that drove business model innovation, Cortimiglia et al. (2016) found that established firms developed their business models based on their strengths and weaknesses and what they had the resources to offer - i.e. what they ‘could’ offer. In contrast, entrepreneurial firms developed their business models around their value propositions - i.e. what they ‘must’ offer - before evaluating how they would design their business modes. From a broader environmental view, Demil and Lecocq (2010) posited that the entrance of new competitors, macro-social trends and macro-economic changes can have a significant impact on the design and effectiveness of a firm’s business model. The authors also suggested that internal changes in leadership and organisational structure or changes in cost and revenue structures could drive business model innovation. Casadesus-Masanell and Zhu (2013) also showed how the choice of the business models of competitors could have a marked impact on the business models employed by firms.

In a study on open business model innovation, Frankenberger et al. (2014) noted the presence of five antecedents to business model innovation. In their study firms innovated their business models when there were gaps in their current business model components, using business model innovation to create consistency in their business model. Managers also utilised business model innovation when there was a need to



create and capture new value; when they had previous experience with collaboration; when they could utilise existing open business model patterns to inform their design; and to defend against industry convergence. In a different study on the impact of partners on open business model innovation, Rumble and Mangematin (2015) highlighted how customers could be drivers of business model design and innovation. Customers were seen to work together with the firm to help them tailor their business models to meet the customers' needs.

The antecedents of business model innovation are summarised in the table below.

*Figure 4: Antecedents of Business Model Innovation*

<b>Internal Drivers of Business Model Innovation</b>	<b>External Drivers of Business Model Innovation</b>
Changes in leadership and organisational structure (Demil and Lecocq, 2010) Gaps in the current business model components, the need to create and capture new value and previous experience with collaboration (Frankenberger et al., 2014) The need to access external complementary assets and knowledge (Chesbrough, 2007; Dmitriev et al., 2014) Geographical diversification (Dmitriev et al., 2014)	Regulatory and technology changes; changes in customer needs (Frankenberger et al., 2013) Competitors' business model innovations (Casadesus-Masanell and Zhu, 2013) Economic shocks (Sosna et al., 2010) Changes in demand and changes in technology (Dmitriev et al., 2014) Customer influence (Rumble and Mangematin, 2015)

### 2.5.5. Considerations for Open Business Model Innovation

Due to the complex nature of the relationships between the numerous partners in an open business model, a change in the business model of the focal firm affects both their own business model as well as those of the other actors within the value network (Storbacka, 2012). It is argued that there are interdependencies not only between the elements of the focal firm's business model, but between all the elements of all the partners' business models (Berglund and Sandström, 2013). Therefore, the broader the focal firm's business model becomes, the more complex the relationships become between the elements of each partners' business model and the higher the transaction costs involved in maintaining the system (Holm et al., 2013). This high degree of interdependence between the business models of all the partners in the open business model network also increases the degree of complexity in the network, with positive and

negative feedback loops emerging from small changes to interdependent firms' business models (Berglund and Sandström, 2013; Frankenberger et al., 2013). The increased uncertainty of the outcomes arising from business model innovation in open networks is suggested as a possible factor that limits the degree of innovation within these networks (Berglund and Sandström, 2013). This suggests that the more open the business model network of the focal firm, the less able it will be to innovate its business model whilst simultaneously maintaining its relationships with its partners within the network. Rajala et al. (2012) have stated that firms need to be able to change directions quickly and reconfigure themselves strategically in the dynamic contemporary business environment if they are to maintain their competitive advantage. The potential inflexibility of open business models may therefore limit this.

## **2.6. Competitive Advantage**

A notable number of papers in the literature espouse the ability of innovative business models to create a sustainable competitive advantage for firms (Teece, 2010; Voelpel et al., 2004; Zott and Amit, 2008; Markides and Sosa, 2013; Cortimiglia et al., 2016). However, many of the papers in the literature that propose creating competitive advantage through business model innovation are theoretical in nature (e.g. Voelpel et al., 2004; Teece, 2010; McGrath, 2010). Nevertheless, the most salient proof for the ability of business models to confer competitive advantage is encased in the earlier quote by Chesbrough (2010) relating to the fact that different innovations commercialised through different business models are likely to yield different levels of success. This is evident when examining the examples of business model innovation highlighted at the beginning of this paper. Waze, the GPS navigation firm beat out better funded rivals by offering a similar, albeit slightly better, value proposition through an innovative business model that used the resources of customers as the bedrock of its service (Tréry et al., 2015). Netflix managed to dominate incumbents Blockbuster through an innovative business model (Teece, 2010) and P&G increased profits through business model innovation (Anthony and Brown, 2011).

Although the evidence suggests that business model design and innovation can lead to competitive advantage, the business model design mechanisms for doing so have not been adequately highlighted in empirical studies. There is a growing body of research on business model design and innovation (Wirtz et al., 2016), however general strategies for creating competitive advantage through these processes have not yet been noted. This therefore presents itself as a rich area for research for both academic and business purposes.

The following section covers a number of concepts within the competitive advantage literature.

### **2.6.1. Multi-sided platforms and Network Effects**

Moving away from the business model literature, Rochet and Tirole (2003) have argued that the challenge for multi-sided platforms entails getting “both sides on board” (p. 990). To this end, it is argued that multi-sided platforms are able to achieve competitive advantage through the creation of direct and indirect network effects that allow them to create valuable platforms (Hagiu and Wright, 2015; Cennamo and Santalo, 2013). Direct network effects occur when an increase in the number of users using a service increases the value for all users using the service; indirect network effects occur when one party produces products – such as DVDs – that make a platform – such as DVD players – more attractive to participants (Katz and Shapiro, 1985). This is because the greater the availability and variety of DVDs that exist for DVD players, the more valuable it is for a consumer to have a DVD player. In the context of multi-sided platforms, indirect network effects are also called cross-group network effects (Hagiu and Wright, 2015). These are created when the benefit to ‘side A’ of using the platform is proportional to the number of users on ‘side B’ of the platform. Building network effects is seen to be facilitated through utilising the correct pricing mechanisms for each of the sides in the market (Rochet and Tirole, 2003; Parker and Van Alstyne, 2005; Hagiu, 2014). In contradiction to Rochet and Tirole (2003), it is argued that creating network effects alone is not enough to ensure platform success and that firms need to consider the degree of their platform differentiation in respect of competitors if they are to create competitive advantage (Cennamo and Santalo, 2013).

Although the network economics theory provides valuable insights into creating competitive advantage with multi-sided platforms, this paper argues that network effects alone explain a necessary, but not sufficient facet of the source of competitive advantage for multi-sided platforms. This is because considerations of pricing (revenue model) and the source of network effects (number of partners or customers on the platform) form only part of the business model of the multi-sided platform and do not describe the full logic of value creation and capture of the firm. It is argued then that the network economics explanation of competitive advantage in multi-sided platforms is complementary to that which will be provided through the business model innovation framework and will therefore form part of the analysis of the data in this paper.

## 2.6.2. The Resource Based View

The resource based view (RBV) suggests that competitive advantage is created through acquisition and exploitation of valuable resources, comprising both tangible and intangible assets (Wernerfelt, 1984). These resources include know-how, machinery, processes, capital and brand names (Wernerfelt, 1984). Barney (1991) stated that in order for a resource to provide a firm with a sustained competitive advantage it must be:

- a) Valuable
- b) Rare
- c) Imperfectly imitable and therefore difficult to copy; and
- d) Non-Substitutable

Similarly, Grant (1991) argued that a resource can provide competitive advantage if competitors are unable to understand which capabilities underlie a firm's advantage through a lack of 'transparency'; if they are unable transfer these resources to their operations because of resource immobility through a lack of 'transferability'; or if resources are difficult to replicate due to their complexity or tacit, non-codified nature.

The RBV of competitive advantage links to the business model literature through assertions that business models must be protected from imitation to successfully confer competitive advantage (Teece, 2010; Desyllas and Sako, 2013; Markides and Sosa, 2013). Teece (2010) argued that developing a good business model by itself is not enough and that it is essential to create a business model that is difficult for competitors to imitate if one wishes to gain a sustainable competitive advantage. Similarly, due to the significant investment required in developing a new business model, a major determinant of whether a firm will be able to profit from a business model innovation is whether one is able to protect it from imitation (Desyllas and Sako, 2013). In his "profiting from innovation" framework, Teece (1986) suggested that IP (innovations) can be protected either through formal means, such as patents, or strategic means such as secrecy, specialized complementary assets or distribution networks. Desyllas and Sako (2013) supported this in research that showed that the development of complementary assets, coupled with a strong appropriability regime and an innovative business model design could confer competitive advantage.

In line with the RBV literature on competitive advantage, Teece (2010) suggested that a business model can be difficult to imitate if:

- the parts of the business model are co-specialized

- it is difficult for competitors to understand which parts of the business model constitute the source of customer value - i.e. there is causal ambiguity (Lippman and Rumelt, 1982);
- by copying a business model, competitors may cannibalize some of their current sales (Christensen, 1997);
- a firm develops complementary assets that are difficult to copy.

The idea that valuable and inimitable resources and capabilities lead to competitive advantage has been challenged by a number of authors. Fréry et al. (2015) have argued for the value of utilising 'ordinary resources' as a way to create competitive advantage. They see the way that these resources are combined as creating competitive advantage. This aligns with the business model literature that suggests that competitive advantage is achieved through the interdependence of the combination of components in the business model (Johnson et al., 2008; Sorescu et al., 2011; Markides and Sosa, 2013; Frankenberger et al., 2013; Landua et al., 2016). In other words, it is not the possession of resources, but the way that they are combined that leads to competitive advantage. Furthermore, when combined using a multi-sided platform, Fréry et al. (2015) see the platform and potentially the size of the pool of ordinary resources as the source of competitive advantage.

Knott (2003) also suggested that the inimitability of a resource or capability may not be necessary for it to confer competitive advantage. She found that the availability of a resource did not automatically lead to its utilisation by managers within an industry and that the use of a resource was related to a manager's incentives to do so. This supports the business model literature that states that business model innovation – or imitation – may be limited by the dominant logic of managers (Voelpel et al., 2004; Chesbrough, 2010; Teece, 2010; Gassmann et al., 2013).

### **2.6.3. Business Models and First Mover Advantages**

Apart from the methods of creating competitive advantage as laid out in the classic RBV papers above, Markides and Sosa (2013) suggested that firms can create business models that undermine the first mover advantages (FMAs) and unique assets that competitors have acquired. By stating that 90% of all entry into markets is imitative, the authors argued that an innovative business model can lead to competitive advantage when entering a new market. This is because it could act as the differentiator between the innovating firm and incumbents within the market. Markides and Sosa (2013) used the example of South West Airlines utilising under-utilised, secondary airports as a core component of their business model that allowed them to leapfrog incumbents' first mover

dominance in primary airports. The authors also argued that an incumbent could defend the FMAs they acquired by innovating their business model when new entrants challenged them in a market.

Teece (1986) argued that early entrance into a market could be beneficial when it led to the establishment of co-specialised assets that provided the focal firm with an advantage over competitors due to the head start they achieved over competitors. This was supported in research by Desyllas and Sako (2013) who showed how the development of co-specialised assets within a strong appropriability regime could support the creation of an inimitable business model that conferred competitive advantage to the focal firm for a number of years. In this way, the business model was instrumental to creating competitive advantage, however this was enabled by other FMAs, including the development of co-specialised assets and IP protection.

#### **2.6.4. Business Model Configurations and Competitive Advantage**

It has been noted in this paper that one of the salient features of multi-sided platform business models is that they leverage the ordinary resources (Fréry, et al., 2015) of external partners to deliver their value. Furthermore, an outside observer is easily able to see the operations of the multi-sided platform through their interaction with the platform acting either as a “buyer” or a “seller”. Competitors should then be able to see the building blocks of the business model due to their transparency (Teece, 2010). Therefore, in terms of the RBV (Wernerfelt, 1984; Barney, 1991, Grant, 1991), these multi-sided platform business models would have a limited ability to create and sustain competitive advantage because of the imitability of their designs and utilisation of partners’ abundant ordinary resources. It is noted here that certain intangible valuable resources, such as brand and reputation can still be developed and owned by the focal firm utilising a multi-sided platform. However, these resources would need to be developed within a weak appropriability regime where their business model would be susceptible to imitation.

Whilst it is argued that it is easy for competitors to imitate product and process innovations, numerous authors have argued that imitating business model innovations may be more challenging (Sorescu, 2011; Teece, 2010). The argument is that successful business models comprise a wide array of interlocking components and that it is therefore necessary to copy all of these components and manage the complex relationships between them to realise their benefit (Chesbrough, 2007; Frankenberger et al., 2014). Through the integration of a complete set of complementary and value-creating components, the whole is seen as greater than the sum of its parts (Cortimiglia

et al., 2016). This insight therefore presents a potential resolution to the contradictions of business models as a source of competitive advantage suggested by the RBV by proposing a mechanism that hinders imitation. The literature also suggests that innovating the business model may be difficult due to the dominant logic of the firm and from organisational inertia (Chesbrough, 2010). Hence, these barriers to business model innovation may confer competitive advantage to the innovating firm over an incumbent.

On the other hand, the business model concept makes it easier for managers to codify not only their business models, but also those of their competitors. Frankenberger et al. (2014) showed that one of the antecedents of open business model innovation was the existence of open business model patterns. In other words, these innovations were driven by observing open business models in other firms and copying them. Baden-Fuller and Morgan (2010) noted the ability of firms to copy other firms' successful business models through the study of their business models. Similarly, Teece (2010) noted the ability of firms to copy business models across from one industry to another. Furthermore, Sandulli and Chesbrough (2009) proposed that the occurrence of standards or protocols between partners in an open business model leads to greater success for all parties. However, codified business models would be transferable (Grant, 1991) which creates the potential for imitation. It is therefore possible that a codified, successful open business model would be easy to imitate and hence would not be able to confer competitive advantage.

## **2.7. Conclusion**

This chapter has presented a review of the literature on business models. It has defined the business model construct and presented a model based on an amalgamation of the literature as a tool for analysing the research presented in later chapters (Figure 2). It has explored the growing work on open business models which has helped to define the boundary spanning nature of business models (Zott and Amit, 2010) and develop an understanding of businesses within the ecosystems in which they operate (Moore, 1993; Voelpel et al., 2004; Frankenberger et al., 2013; Adner, 2017). The chapter then explored the business model innovation literature and presented insights into the benefits, processes, antecedents and challenges of innovating business models. Finally, the chapter closed with a presentation of literature on competitive advantage and business models. A number of contradictions were examined between how business models may be viewed as tools of competitive advantage by the RBV theories and by the business model literature. These contradictions open up rich possibilities for research into understanding how business models confer competitive advantage within

these contradictions. This leads to the chapter three which presents the research questions of this study.



## Chapter 3 – Research Questions

### 3.1. Introduction

This chapter presents the research questions that formed the basis of this study. These questions have been created based on the review of the literature conducted and presented in chapter two. These questions were formulated to create insight into the business model design and innovation strategies used by owner-managers to create competitive advantage. Furthermore, because of the open nature of multi-sided platforms, these questions sought to uncover the role of partners in the design of these business models.

### 3.2. Research Question 1

*How do owner-managers design multi-sided platform business models?*

Although multi-sided platforms have proliferated since the advent of the internet and the burgeoning of e-commerce (Muzellec et al., 2015), empirical research on their design has been lacking in the business model literature. This question therefore sought to understand how owner-managers design multi-sided platform business models.

### 3.3. Research Question 2

*What are the challenges and enablers of multi-sided platform business model design and innovation in South Africa?*

Business models can be transferred from one industry or setting to another (Teece, 2010; Baden-Fuller and Morgan, 2010) and because South Africa lags behind developed economies in terms of its ICT development (ITU, 2016) it is argued that South African managers should be able to identify successful tech business models in developed markets and implement them in South Africa when the ICT infrastructure reaches an acceptable level of development. The South African market, as a proxy for a developing economy, therefore presents an interesting case for the study of business model transfer and adoption. In this context, this question aims to understand the challenges and enablers of transferring and adopting multi-sided platforms in South Africa.

### 3.4. Research Question 3

*How are partners involved in the design and innovation of multi-sided platform business models?*

Partners play an important role in the operationalisation of open business models (Storbacka et al., 2012; Holm et al., 2013; Ghezzi et al., 2016), represented in this study through multi-sided platform firms. Similarly, Adner (2017) sees business ecosystems as constructed through the interaction of partners participating in symbiotic value creation. Because of the importance of value co-creation for creating competitive advantage (Prahalad and Ramaswamy, 2004) in open business models (Storbacka et al., 2012; Frow et al., 2015) this question sought to gain insight into the role of partners in the design and innovation of the business models of multi-sided platforms.

### **3.5. Research Question 4**

*What strategies do multi-sided platform owner-managers use to create competitive advantage through business model design and innovation?*

Business model innovation is seen as an important and successful tool for creating competitive advantage (Teece, 2010; Voelpel et al., 2004; Zott and Amit, 2008; Markides and Sosa, 2013; Cortimiglia et al., 2016). However, as multi-sided platforms are built using the ordinary resources (Frery et al., 2015) of their partners, in a weak appropriability regime (Desyllas and Sako, 2013), they should not, according to the RBV, be able to confer competitive advantage as they are built on resources that are arguably neither rare, non-substitutable, nor inimitable (Barney, 1991). However, four of the five most valuable firms in the world (PWC, 2017) utilise platform business models. This question therefore sought to create insight within this paradox by understanding the business model design and innovation strategies used by owner-managers to create competitive advantage.

### **3.6. Conclusion**

This chapter has presented the research questions that form the basis of the study conducted through this paper. Through providing answers to these questions, the research is expected to create a better understanding of the business model design strategies used to create competitive advantage within the value networks in which multi-sided platform firms operate. The following chapter presents the methodology used for the research.

## Chapter 4 – Research Methodology

### 4.1. Introduction

This chapter outlines the research design used in the study to answer the questions posed in chapter three. The study utilised a qualitative approach to study multi-sided platform firms based in South Africa as it was believed that the study of this population would yield rich insights into the creation of competitive advantage through business model design and innovation. Data was collected through semi-structured interviews conducted with owner-managers of the firms in the sample. This data was analysed and categorised, creating emergent themes based on the literature review in chapter two. In the course of the research, the researcher took cognisance of potential concerns around reliability, validity, ethical considerations and the limitations of the study, which are presented at the end of this chapter.

### 4.2. Research design

This research was conducted through a qualitative cross-sectional research design. Qualitative research is suited to promoting a deep understanding of an activity and has an emphasis on exploration and discovery (Bloomberg and Volpe, 2012). The decision for conducting the research in this manner was informed by the theoretical ambiguity surrounding the business model concept (Spieth et al., 2016) as well as by the predominantly employed research methodology in the literature (Landua et al., 2016; Wirtz et al., 2016). Due to the need for the further development of theory in this nascent field (Wirtz et al., 2016), this paper took both a deductive approach informed by the literature review as well as an inductive approach to themes that arose during the course of the qualitative analysis. Combining both inductive and deductive methods in a single study is advocated by both Saunders and Lewis (2012) and Bloomberg and Volpe (2012) who suggested that the analysis and coding procedure is initially based deductively on the literature, but also develops from the researcher's own experience.

Semi-structured interviews are regularly used in qualitative business model studies. For example, Taran et al. (2015) conducted semi-structured interviews because of the explorative nature of their research into developing business model innovation typologies. This allowed the respondents maximum freedom to explain their own views on the business models under study. According to Saunders and Lewis (2012), semi-structured interviews are useful when the area under study is complicated or when the interviewer is unsure of the answers he or she will receive. Due to the nascent nature of

this research area and the need to get rich, in-depth data from participants, semi-structured interviews were conducted.

### **4.3. Population**

The population for the study comprised owner-managers of multi-sided platform firms in South Africa that had been in existence for at least six months and were currently generating revenue. Owner-managers were selected because it is suggested that they have a systemic understanding of their businesses and are therefore in a good position to fully understand the firm's business model (Velu and Jacob, 2014). Multi-sided platforms present a rich area for study for two reasons. Firstly, their dominance as a logic for value creation and capture, with multi-sided platforms comprising four of the five most valuable companies in the world (PWC, 2017), invites closer academic attention. Secondly, their reliance on the 'ordinary resources' (Frery et al., 2015) of a multitude of partners to create and deliver their value propositions suggests that they may struggle to deter imitation and are therefore not able to create competitive advantage (Barney, 1991; Grant, 1991). However, the meteoric rise of platforms such as Facebook, Uber and Airbnb show that these business models can create competitive advantage. Therefore, in light of this paradox, multi-sided platforms present a rich area of research for understanding how business models may confer competitive advantage. Furthermore, because of their reliance on partners, multi-sided platforms present a window into the ecosystems in which this value is created and captured, allowing one to better understand the role of partners in value creation and capture within open business models.

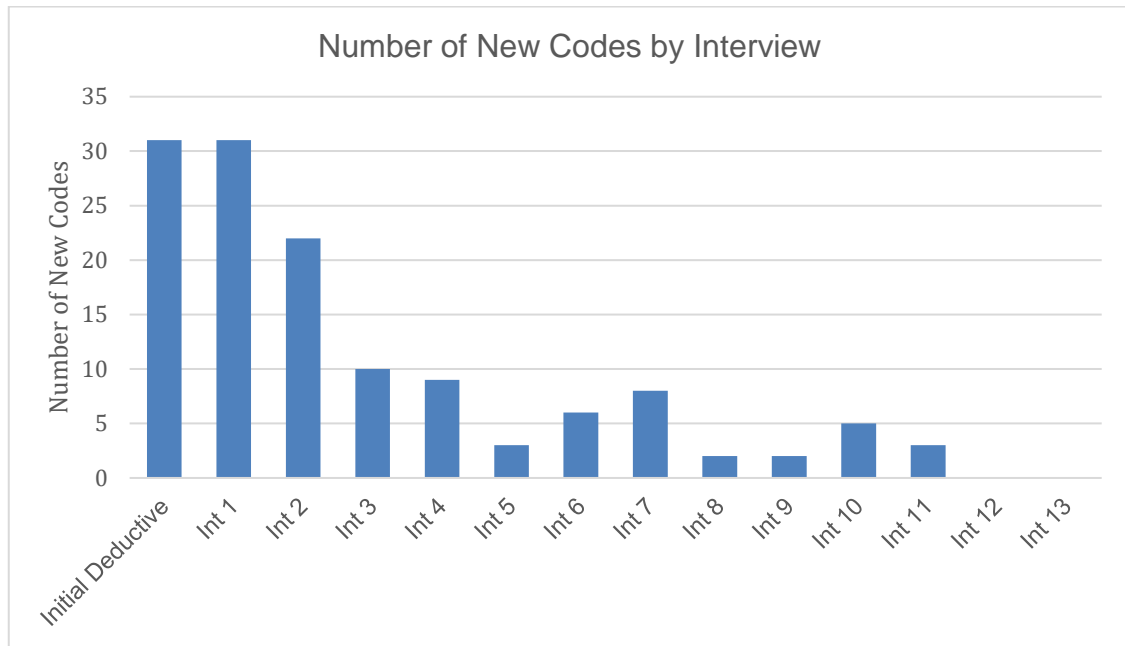
As a developing economy, South Africa was seen as a prime location for conducting research on tech-based business models. This was because, arguably lagging behind the ICT-related progress of developed economies (ITU, 2016), South African-based managers and entrepreneurs should be able to identify successful tech-based business models being implemented in other markets before they could be implemented in South Africa. Because of the transferability of business models from one market or industry to another (Teece, 2010; Baden-Fuller and Morgan, 2010), these managers would then be able to implement these models in South Africa when the right ICT infrastructure became available. It was therefore proposed that the regional scope of the study would aid in understanding the challenges and enablers to the transferability of multi-sided platform business models from one context to another.

The entirety of the population could not be established at the outset and it proved challenging locating members of this population as no reliable list exists of the population. The method for collecting the sample is covered in section 4.4. Although gathering financial data on private firms – and hence creating a measure of their success - has been noted as a potential issue when conducting research with SMEs (Ehret, Kashyap, and Wirtz, 2013), the researcher confirmed with the participants before conducting interviews that the firms were earning revenue. Revenue generation and the minimum age threshold were chosen as two of the selection criteria to ensure that the business models of the firms in the study were operational.

#### **4.4. Sampling**

This study employed purposive sampling to ensure that the participants involved in the study would yield insight and understanding of the phenomenon which was under study (Bloomberg and Volpe, 2012). The sample was identified through secondary research utilising online Google searches as well searching through the websites VentureBurn.com, VC4A.com and entrepreneurmag.co.za. The researcher also utilised his informal network to establish a list of individuals who form part of the population above. As interviews begun, snowball sampling was utilised to gain access to additional members of the population (Saunders and Lewis, 2012). The size of the sample was not fixed at the outset, but was determined when saturation was reached – when no new insights were found from further data analysis (Saunders and Lewis, 2012; Guest, Bunce and Johnson, 2006) or when the analysis of the data had produced categories and themes robust enough to cover what emerged later (Merriam and Tisdell, 2016). Saturation was reached at the twelfth interview, after which one additional interview was conducted to confirm that saturation had been reached. This was confirmed by using the method proposed by Guest et al. (2006) where the researcher takes note of each new code as it is created and plots this out visually as in figure 5 below. This was conducted by the researcher by noting each time a code appeared for the first time during data analysis in Atlas.ti.

Figure 5: Number of New Codes by Interview



## 4.5. Unit of analysis

The unit of analysis for the study was the firms in sample.

## 4.6. Interview schedule

As noted in section 4.2, semi-structured interviews were conducted, guided by an interview schedule. Although the ability to move freely between questions and to probe further where necessary is put forward as an advantage of using semi-structured interviews (Saunders and Lewis, 2012), Flick (2011) argues that utilising similar questions across interviews aids in analysing the data collected from a comparative view. This then suggests to the researcher that the differences in data collected in interviews can be attributed to differences in the participants. This supports the use of an interview schedule to guide the semi-structured interviews utilised in this study.

The interview schedule was guided by the literature review conducted in chapter two of this paper to answer the research questions proposed in chapter three. The first question drew heavily on the overview of the business model constructs put forward in 2.2.1, with a simplified five-factor version of the business model used to guide the discussion during the interviews. An example of how this five-factor model was completed during an interview can be found in Appendix B.

Although the structures of the business models under study were not analysed in the findings, they were elicited from the participants in order to focus the interview on the business model constructs identified in the theory.

#### **4.7. Pre-test**

A pre-test of the interview schedule was conducted with an owner-manager of a firm that represented the characteristics of the population of the study. This was done to ensure that the questions were correctly understood by the participants, were not leading and were aligned to collect the data required for the study (Saunders and Lewis, 2012). In the pilot interview it was found that the content of the interview often moved far away from the business model constructs and processes under study. It was therefore decided to ensure that the business model “map”, as laid out in figure 2, was present and within sight for each proceeding interview. This aided in keeping later interviews aligned with the concepts under investigation.

#### **4.8. Data collection**

Data was collected through face to face interviews and through online video chats over the course of an eight-week period. The audio was recorded on two audio recording devices simultaneously to ensure integrity of the data. This audio data was then backed up to Google Drive. The face to face interviews were conducted at the offices of the participants and at the Gordon Institute of Business Science; all of these interviews were conducted in a private room to minimize disturbance (Saunders and Lewis, 2012). The online video chats were recorded over Skype and Google Hang Out. Notes were taken during the interviews and used to keep track of any additional questions that the researcher had during the interview. In one case, interview data was collected from a publicly available website. This data was collected whilst the researcher was in the process of triangulation and was included in the analysis due to the insights presented in the interview.

Along with the primary interview data, Taran et al. (2015) suggested collecting additional background information on the companies under study to ensure validity and reliability when analysing qualitative data. This additional data was collected through the websites noted above in section 4.5 as well as directly through the participants’ company websites and social media pages. This was done to ensure that the companies approached for interviews fit the population description and to aid the researcher in his understanding of the firms under study.

In total, fourteen interviews were conducted, however one interview was discarded after it emerged that the participant's firm did not fit the sample description. The shortest interview conducted was 36'25" with the longest interview lasting 1h12'50". The average length per interview was 53'45".

## 4.9. Data Analysis

The raw audio recordings from the interviews were transcribed and the transcribed interviews were loaded into ATLAS.ti for data analysis. The researcher began analysis of the interviews shortly after each interview was conducted during the eight-week interview period. This is suggested by Merriam and Tisdell (2016) as an effective strategy for guiding a qualitative research project and creating a focused and illuminating result. In this way, themes that emerge early on in the research can inform the interviewing of later participants. A number of themes emerged early on in the research that informed minor adjustments to the interview schedule in later interviews. Bloomberg and Volpe (2012) suggested that the researcher should become immersed in the data, reading first to identify major themes related to the research questions and based on the literature review, and then re-reading the data to develop codes for common themes and categories that arise. To ensure consistency, descriptors should be created for these categories. The data analysis began with the process of open coding where codes were assigned to relevant units of data in the transcripts (Merriam and Tisdell, 2016). The codes were created both from an initial deductive list, informed by the literature review, as well as inductively during the process of coding. Bloomberg and Volpe (2012) have suggested that although the researcher will have created categories in the first step of data analysis above, that he or she should be open to adding new categories that emerge as data analysis progresses and should not try to force the data into preconceived categories. This was done by allowing the proliferation of codes to occur throughout the analysis and then constantly refining the codes and categories as coding progressed. This process led to the creation of code categories, informed both by categories suggested in the literature and through categories that emerged from the data (Schreier, 2013). According to Merriam and Tisdell (2016, p. 204), "Category construction is data analysis". The categories created were then grouped together under each relevant research question. Finally, they were divided into sub-categories under each research question, each comprising a number of codes. This was done so that the data could be presented in a manner suitable for answering each research question (Schreier, 2013).



## 4.10. Researcher Bias and Reliability

Reliability refers to extent that methods for data collection and analysis produce consistent findings (Saunders and Lewis, 2012). Miller (2012a) suggested that reliability in the qualitative domain relates to concepts such as dependability, confirmability and consistency. It is suggested that the preconceptions, or biases, of the researcher can have a negative impact on the reliability of the research (Miller, 2012a; Saunders and Lewis, 2012).

In order to limit researcher bias, Bloomberg and Volpe (2012) suggested utilising member checks, whereby the researcher requests that some of the participants in the study evaluate the researcher's interpretation of the data. This was conducted during data collection where participants were queried on the researcher's interpretation of what was said. This was also done in the later phase of the research where two of the participants were queried on the interpretation of the data analysis. The researcher also attempted to justify the interpretations of the data in chapter five with selected quotes as a means of mitigating observer bias (Saunders and Lewis, 2012).

## 4.11. Limitations

The explorative nature of qualitative research limits the generalizability of the results obtained from the data analysis (Bloomberg and Volpe, 2012; Taran et al., 2015). This is due to the smaller sample sizes used in qualitative research, as compared to quantitative research, and the rich nature of the context-specific data collected. However, the goal of qualitative research should be transferability – i.e. an attempt to understand how the knowledge can be applied in similar contexts and settings (Bloomberg and Volpe, 2012). Qualitative research has also been suggested to be limited through the subjective nature of the research findings, influenced by the biases of the researcher (Saunders and Lewis, 2012). The study, however, attempted to diminish the effect of researcher bias by presenting evidence for the claims made and by justifying the methods used (Saunders and Lewis, 2012).

The study attempted to select a heterogenous sample of companies in order to increase the transferability of the results. This heterogenous sample of participants was created by selecting firms from a wide range of industries. However, saturation was reached by the twelfth interview, which was proposed by Guest et al. (2006) and Saunders and Lewis (2012) as suggesting a moderately homogenous sample.

The firms selected were operating in three of the largest cities in South Africa and therefore, although the study aimed to understand multi-sided platforms in a developing

economy context, the focus on firms in large cities may limit transferability to other developing regions or to firms in smaller cities in developing regions.

## **4.12. Validity**

Validity refers to the extent to which research measures what it intends to measure (Saunders and Lewis, 2012). Validity is considered within the field of qualitative studies as being similar to credibility, transferability and plausibility and can be enhanced through member checks, continual verification of findings and self-reflection (Miller, 2012b). Validity was ensured through the use of the business model framework (Figure 2) at the beginning of the interviews, and the validity of this framework was ensured through an extensive review of the business model literature. The use of this framework helped to facilitate a common understanding between the researcher and the participants on the concepts being investigated. Furthermore, there was constant feedback between the business model diagram and what was asked in the interviews to ensure that participants focused on the business model concept.

Collecting secondary data, such as publicly available firm information as a method of triangulation is suggested as a way of increasing the validity of the researcher's data analysis (Taran et al., 2015; Bloomberg and Volpe, 2012). As was noted in section 4.9, the researcher examined the websites of the participants' firms beforehand, as well as a number of media articles written on the participants' firms. This information was then checked during the interviews with the participants and was used to guide the semi-structured interviews.

## **4.13. Ethical Considerations**

To ensure that the research was conducted in an ethical manner, the researcher first obtained ethical clearance from the university's Ethics Committee. This was followed by gaining informed consent from the participants in the study and ensuring confidentiality for the participants in the study (Bloomberg and Volpe, 2012). Participants were required to sign a consent form (Appendix A) before the recording of the interviews commenced to ensure that informed consent took place. To ensure anonymity, the names of all of the firms that took place in the study were changed to pseudonyms. Where necessary, the names of some of the firm's major business partners were changed to support this anonymity.

## Chapter 5 - Results

### 5.1. Introduction

This section presents the key findings from the interviews of the 13 owner-managers of the multi-sided platform firms interviewed for the research. The key findings are presented as they relate to the research questions posed in chapter three. The results are presented based on themes that were identified from the qualitative analysis of the interviews, providing insights on the process of business model design with multi-sided platform business models, on the challenges and enablers of business model design and innovation, on the influence of partners on this process, and finally on the strategies firms use to create competitive advantage with business model design and innovation.

This chapter begins by presenting a description of the participants in the study, followed by the presentation of the results from the qualitative analysis

### 5.2. Description of Participants and Context

*Figure 6: Participants and Context*

Company Pseudonym	Industry	Description	Company Age	City
Full Cargo	Logistics	Connects cargo with empty shipping space; sells cargo insurance and trade finance	1 year	Johannesburg
Fund.Me	Finance	Matches small & micro enterprises with finance; supplies leads and data to government and business customers	3 years	Durban
WorkFindr	Employment	Connects freelancers with work	2 years	Johannesburg
Rent.ly	Property Rental	Connects renters, property owners and third-party suppliers	4 years	Cape Town
Safari Sights	Tourism	Connects safari communities to animal sightings – videos and locations - in a large game reserve; connects lodges to customers	3 years	Johannesburg
Deep Dive	Employment / Research	Connects marketing departments with external marketing skill, resources and campaign feedback	3 years	Johannesburg
Bed Net	Accommodation	Connects guesthouse owners with large online booking portals and provides booking services to guest houses	9 years	Cape Town
EZ Match	Employment	Connects job seekers with jobs; undergoing a major pivot	3 years	Cape Town

Property Direct	Property Sales	Connects private property sellers and agents with buyers and connects advertisers with an audience	17 years	Durban
JobShop	Employment	Matches blue collar workers with jobs	3 years	Johannesburg
Mrkt Plc	Online Marketplace	Online marketplace that connects entrepreneurs with opportunities	9 months	Johannesburg
Salud	Beverage Delivery	Connects bottle stores and customers	1 year	Johannesburg
Gym Buddy	Fitness	Connects people and medical aids with independent gyms and studios	2 years	Cape Town

All the names of the businesses were changed from their original names to ensure anonymity for the respondents. As noted above, participants were selected from a wide variety of industries. This wide selection of industries was chosen in an attempt to create a heterogenous sample and to increase the richness of the data collected.

A total of fourteen interviews were conducted, however one interview was removed from the sample after it emerged that the participant had not yet innovated the business model to the stage of being a multi-sided platform. One of the firms in the study, Deep Dive, had started the business as a multi-sided platform, but had eventually ‘productized’ the offering on the platform after they struggled to get customers to use the platform. This means that Deep Dive were selling pre-packaged services to customers who used Deep Dive’s offering instead of having buyers buy services directly from sellers. They were currently moving back to a platform model. Another company, EZ Match, had undergone a significant pivot from the first version of their business model and were in the process of relaunching version two of their platform. Both of these firms were struggling to get their business models to work as planned, but were kept in the sample as they added a great degree of depth to the challenges faced by owner-managers when designing and innovating multi-sided platform business models.

Of the final 13 interviews, seven were conducted face-to-face and six were conducted on Skype or Google Hangout. Each participant interviewed was either the founder or the co-founder of the firm under study and could be considered the owner-manager of their respective firms. All of the participants interviewed were based in either Cape Town, Johannesburg or Durban, South Africa. Each interview conducted face-to-face was done so in a private room either on the premises of the Gordon Institute of Business Science or at the offices of the participant’s firm. Each participant was given the interview questions beforehand along with the business model diagram introduced in chapter two (Figure 2). This was done to give the participants deeper insight about the research before interviews commenced as well as to mitigate any concerns participants may have

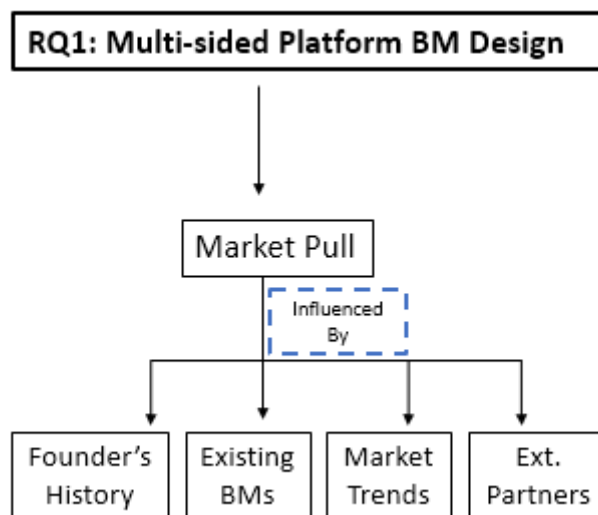
had about the intrusiveness of the research. As noted in section 4.7, the business model of the firm under study was subsequently sketched out at the beginning of the interviews with the aid of the participant and kept either on the table between the participant and the interviewer or on a shared screen over online video chat. This was done in an attempt to keep the interview content focused within the business model design and innovation constructs.

### 5.3. Results: Research Question 1

*How do owner-managers design multi-sided platform business models?*

This research question aimed to understand how owner-managers designed their multi-sided platform business models at inception. It emerged that all of the business models in the study were created through market pull opportunities, influenced by the founder’s history, existing business model designs, market trends and external partners.

*Figure 7: Overview of Results for RQ 1*



#### 5.3.1. How Entrepreneurs Create Platform Business Models

##### 5.3.1.1. Market Pull vs. Technology Push

Mrkt Plc: “Technology is just an enabler.”

In every case the companies interviewed were technology firms, being asset-light companies powered by a digitally enabled matching platform. However, in spite of this, every single one of the firms in the study created their business models through a market pull (Dmitriev et al., 2014) process. Numerous participants spoke about the process of

identifying an opportunity or problem and then designing their business model to solve that problem.

Fund.Me: *“Every product I’ve built has always been to solve a problem; it so happens that the problems I solved have a massive market.”*

Deep Dive: *“We saw an opportunity, so we didn’t have the tech to start with. A lot of it was manual at first so we didn’t have the algorithm or the database.”*

Full Cargo: *“Market first, then reverse engineered the technology to fit it, and then constantly changing the technology to address the needs of the industry.”*

Technology was ultimately seen as the enabler that could bring the business model together and although the underlying technology often underwent an iterative innovation itself, the focus for the participants was always on solving a customer problem or fulfilling an opportunity.

### **5.3.1.2. Identifying Opportunities**

The market pull opportunities were identified through a number of different avenues. In five of the cases the history of the participants played a vital role in the identification of the opportunity they saw in the market.

Deep Dive: *“We recognized that our industry specifically needs some help and the mash up of our backgrounds led to us developing a platform.”*

In four of the cases, the participants identified trends in the market and built their business models to take advantage of those trends.

Rent.ly: *“It’s about being honest about where you think the world is going to go and then translating that to ‘what’s your place in that world, what is your role in that world?’”*

Deep Dive: *“We recognized generally that the way labour is staffed in any organisation is changing, in the rise of contractors and part time freelancers and on-demand workers is changing how companies think about their staffing models.”*

In two of the cases, the participants validated the opportunities they identified in the market through noting that the business models that met these opportunities had been proven in other markets.

Salud: *“You find that in the US [the same business model] already exists. So, the business model had been proven.”*

In one case, the market opportunity was identified by an external partner.

*Fund.Me: “The key partner... who started the research on this, they came out with the concept... then went out on public tender to hand that IP over to someone... who they felt could continue to innovate and grow the product into the market.”*

The experience of the participants in each of the cases helped them to identify customer problems in the market and was inextricably linked to the market pull process of creating the business model noted in section 5.3.1.1. Even in the case of the founder of Fund.Me, although the IP for her business was handed to her by a key partner, she was still using that IP to solve a problem that she had identified.

*Fund.Me: “The way I build the business is that I see a challenge that I had that I couldn’t find anywhere I looked for a solution... and then I make my own solution.”*

### **5.3.2. Summary of the findings of Research Question 1**

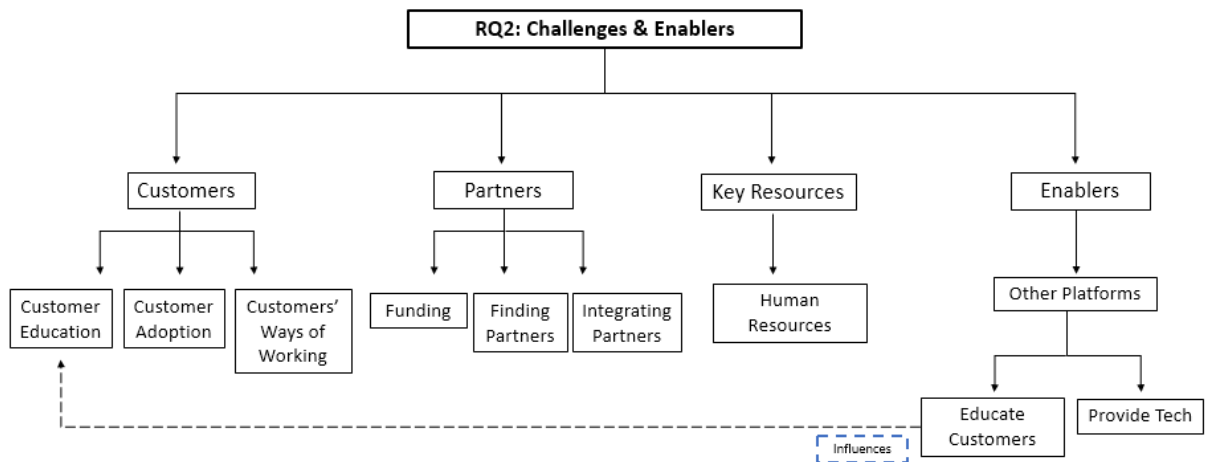
In answering research question one, it emerged that all of the businesses in the sample had built their businesses from a market pull paradigm to solve a problem or fulfil an opportunity. The history of the participants appeared to play an instrumental role in discovering and defining this problem and then building the business model around it. Existing multi-sided platforms helped two of the participants to validate their idea and in one case, a partner was instrumental in providing the idea to the founder of Fund.Me.

## **5.4. Results: Research Question 2**

*What are the challenges and enablers of multi-sided platform business model design and innovation in South Africa?*

This research question aimed to understand the challenges and enablers of designing and innovating multi-sided platform business models in South Africa. As noted in the chapter four, South Africa was selected for the study as an example of a developing country that straddles the positions of having access to the knowledge in order to develop and imitate multi-sided platform business models from more developed economies, but is also hamstrung by a deficit in the development of the ICT sector relative to these developed economies (ITU, 2016). The research therefore utilised this context to understand the challenges of transferring multi-sided platform business models from one context to another.

Figure 8: Overview of Results for RQ 2



### 5.4.1. Challenge: Customers

A key concern for any business is getting customers to try, use and love their products or services. From the research, three primary issues evolved relating to customers and the use of multi-sided platforms in the South African context. These issues related to educating consumers on using platforms; to the platform conflicting with customers' current ways of working; and to getting customers to sign up onto the platforms.

#### 5.4.1.1. Customer Education

Seven of the founders of the firms in the study noted that educating customers posed a significant challenge for driving adoption of their multi-sided platforms. Customers had to be educated about the value to be gained from using multi-sided platforms and had to trust the technology behind them. This applied in situations where customers were not yet familiar with multi-sided platforms as a format for transactions and in situations where the technology was new or the value proposition unfamiliar. This was eloquently noted by the founder of Property Direct when explaining the challenges of promoting the business model locally in the early 2000's.

Property Direct: *"Whenever you're doing something new, there is a resistance. A resistance because your customers don't yet understand it... so you have to create a path, and that's very hard. In other words, there is a blue ocean and it is in one way a huge opportunity because no one's doing it, and in the other way it's hard because you've got to try and show the people that, this is in fact where there is a value proposition."*

The need for building trust for new technology in the eyes of customers was suggested as a challenge when applying a platform business model to a new customer segment.



This was noted by the founder of JobShop when talking about launching his firm's job matching platform.

*JobShop: "That's one of our biggest challenges. Really educating the customers. Really educating the market. People have never seen this thing before. People have never seen anything like it before. Educating the market is one of the big challenges."*

The challenge of customer education was articulated by the founder of Mrkt Plc as a case of the customer not understanding the value proposition that the multi-sided platform could deliver.

*Mrkt Plc: "The challenge is communicating the value proposition to the buyers."*

The need to educate customers was therefore seen as a barrier to adoption for a multi-sided platform business model when it was used in new ways for new markets. The primary challenge was initially one of convincing customers that the firm could deliver value to them and then getting them to initially pay for that. However, when this barrier was overcome, customers were quickly able to see the value.

*JobShop: "So there's a double barrier of well you've got to pay me and got to trust the fact that a machine is going to be able to do the matching for you. Employers are much more difficult. But once they've used it and they've seen the value, then they're like wow this is awesome."*

#### **5.4.1.2. Customers' Ways of Working**

Similar to the challenge of needing to educate customers, four of the participants in the study noted customers' ways of working as challenges to creating and innovating platform business models in South Africa. Although related to educating customers, the challenge of customers' ways of working referred specifically to business to business (B2B) challenges where customers struggled to alter their practices and processes to integrate with the business model of the focal firm. In two of these cases, the focal firm founders felt that this related directly to their customers being South Africa firms.

*Deep Dive: "We worked with the same marketing team here in South Africa like Pepsi South Africa and we work with the Pepsi marketing team in the United States and it's been a night and day sales process."*

*WorkFindr: "It's again I think probably linked to... the kind of adoption around the local markets, the South African market and the kind of, yeah risk appetite around new ways of working."*

### 5.4.1.3. Customer Adoption

Related to the need to educate customers, the challenge of getting customers to use the platform was identified by four participants. Because customers did not understand the value brought by the new multi-sided platform; feel comfortable with technology or, in some cases, because they were already signed up on multiple platforms, it was a challenge to get new customers to adopt these new platforms. Three of the four participants who spoke about this challenge noted that it was easier to get buyers to loyally adopt the platform than it was to get sellers to loyally adopt the platform.

*WorkFindr: "I think that it's easy for us to, to capture the buyers a lot easier than the sellers. Sellers are easy to capture but hard to own... a lot of the time the sellers are kind of platform agnostic... there's no risk for [the sellers] to sign up on all these different [competing] platforms, there is no risk, so why not do it?"*

### 5.4.2. Challenge: Partners

This section excludes cases where customers were considered partners and focusses on suppliers as partners. To a lesser degree than customers, a number of the participants noted that working with partners posed a challenge to the design and implementation of their business models. These challenges related primarily to finding partners to fund the expansion of their business model; to finding the necessary partners to support and complement their business model; and to integrating with the business models of their partners. The challenges around funders were only seen as being problems specific to the South African context by two of the eight participants that spoke about them. Investors were seen as risk averse, which limited the ability of these participants to get funding to implement their business models.

*EZ Match: "...and that's the biggest problem in South Africa is that investors know absolutely \*%&^ all."*

Integrating into the business model of partners created significant barriers to the effective operations of the focal firm's business model when its logic of value creation and capture needed to align directly with that of its partners. In the case of Gym Buddy, the founder went from trying to prove the model to his key partners to waiting for them to decide how they wanted their business model to work.

*Gym Buddy: "It wasn't really about us proving the model. It was about them figuring out their model and going through, you know, eight different levels of management to budget and make it a priority."*

The challenge of not having the right partners available in the market to fully realise a multi-sided platform business model was also noted as an issue.

Bed Net: *“It took 10 years before a partner came along that was actually doing what we’d envisioned.”*

Changes in the business models of partners can also have an impact on the business model of the focal firm. Three of the participants spoke about the impact that their partners had on them when the partners changed their business models. The changing of partners’ business models could pose a significant risk to the focal firms’ models as they relied on these external platforms as key channels or resources.

Safari Sights: *“Yeah, I guess [changing their revenue model] would also be another hindrance, like we rely a lot on these different platforms.”*

Deep Dive: *“Big technology companies like IBM change their policies all the time, so... if they change their pricing structure, there’s a bit of risk there.”*

Partners therefore act both as enablers as an as barriers to effective business model functioning. In all the interviews the participants spoke of their partners as playing an important role in the design, innovation and execution of their business models. This is discussed in greater detail in section 5.5.

### **5.4.3. Challenge: Key Resources**

Six of the participants spoke about key resources as one of the significant challenges they faced when creating a multi-sided platform business model. In every case, this challenge in resources amounted to a challenge in finding the correct human resources to develop and run the platform effectively. This challenge was in turn separated into two different areas of difficulty with the primary area being the challenge of finding software developers and the secondary area being the building of strong, diverse teams that could thrive in these businesses. Three of the participants felt that the challenge of finding software developers was related to living in South Africa.

EZ Match: *“If you are going to outsource the dev then don’t do it locally in South Africa. I just wouldn’t do it.”*

Property Direct: *“Huge, huge lack of skills in the developing world and the skills that are in the developing world either emigrate or they get sucked up.”*

The challenge of building good teams was not identified as a South African specific issue, but the need to find the right people to work in the multi-sided platform business was noted as a significant concern.

Rent.ly: *“We tend to hire quite special people, quite unique people. So, it’s definitely a vulnerability for us at this stage.”*

Fund.Me: *“So we need quite a diverse type of [employee] and when the team’s small they’ve got to play across all of those [customer groups].”*

#### **5.4.4. Enablers: Other Platforms**

Six of the participants in the study spoke about technology and the existence of other multi-sided platforms as enablers for their business models. These platforms educated customers on the use of platforms, and in some cases provided necessary resources or infrastructure to run the focal firm’s model. The interplay between the challenges faced by the participants and the solutions provided by other platforms – even platforms that were not directly linked to the focal firm’s – gave the researcher an insight into the greater platform ecosystems in which these business models are flourishing. In a number of cases, the resources provided by external platforms provided part of the necessary resources for running the focal firm’s business model.

Salud: *“I think that what made it possible was an ecosystem of available technology solutions to actually make it work.”*

Deep Dive: *“IBM really is adding an interesting piece to the puzzle with that final stage of analysis which is now fully automated into the open platform.”*

The idea that the existence of other platforms could increase the adoption of the focal firm’s business model by customers was noted by three of the participants. This occurred through these external platforms influencing consumer behaviour and habituating consumers to the use of platforms.

Rent.ly: *“There’s more and more people doing this, laying a blue print for that kind of lifestyle and all of these [platform] companies that came before us have started to begin to shape the consumer behaviour that we can leverage.”*

Salud: *“If Uber Eats start selling alcohol, I’m not worried. In the next three years, all they will do is convince non-users of the e-commerce cycle in the system to start using it.”*

JobShop: *“The reality is that most South Africans are able to use WhatsApp and Facebook, and they understand what mobile internet is. And that foundation has enabled us to acquire job seekers.”*

These results suggest that the participants in the study saw the existence of other platforms as playing an important role in expanding the broader ecosystems in which they operated.

#### **5.4.5. Summary of the Findings for Research Question 2**

The findings for research question two highlighted the challenges that multi-sided platforms face in educating customers and in getting them to use their platforms. The participants noted that this issue was partly due to customers in the South African market not being used to the technology behind the platform or not being prepared to change their ways of working to fit that of the platform. Key partners were seen as a potential challenge when acting as funders and when there was a lack of congruence between the focal firm’s business model and that of their partners or when key partners weren’t available in the market. The challenges noted around resources focused specifically on not being able to find adequate human resources to drive the multi-sided platform.

Other platforms were seen as enablers for the multi-sided platform business models of a number of the firms in the study. Not only did they provide much needed resources and capabilities in some instances, but they also helped to educate potential customers on the value that multi-sided platforms can deliver. External platforms could therefore be seen as having a positive influence on the challenge of educating customers, however they also posed a competitive risk by potentially luring away users through users’ multi-homing (Rochet and Tirole, 2003) tendencies.

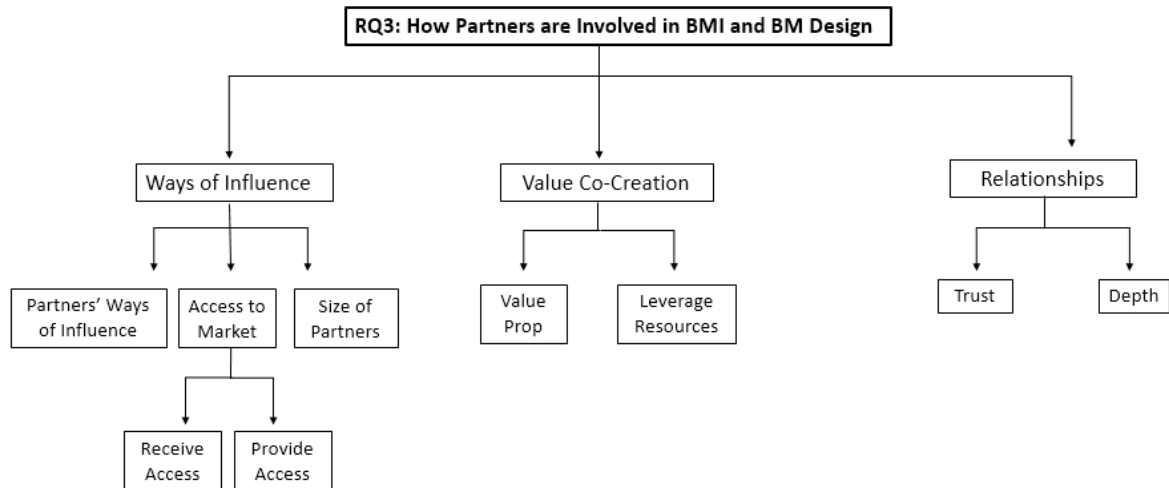
### **5.5. Results: Research Question 3**

*How are partners involved in the design and innovation of multi-sided platform business models?*

This research question aimed to understand how partners are involved in the design and innovation of the focal firms’ multi-sided platform business models. It was discovered that the influence of external partners could not be cleanly separated from the processes and challenges of business model innovation, nor from the strategies used to create competitive advantage with business model innovation noted in sections 5.4 and 5.6 respectively. However, the depth of the data collected for this research question from participants’ responses necessitated that it be analysed on its own.

Three themes emerged through the process of data analysis for this research question, namely, how partners influence the design of the focal firm's business model; the process of co-creation between the focal firm and partners; and thirdly, the nature of relationships between partners.

Figure 9: Overview of Results for RQ 3



### 5.5.1. Partners' Ways of Influence

Partners were identified as influencing the design and innovation of the business models of the firms in the study in a multitude of ways. These included influencing specific components of the business model and in one case even limiting the degree of innovation that could occur. Partners also provided access to market and were granted access to market by the firms in the study. The participants in the study also noted how the size of their partners impacted the degree of influence that partners had on their business models.

#### 5.5.1.1. The Influence of Partners on Business Model Design

Eleven out of thirteen of the participants in the study spoke of the influence of external partners on their business model design and its innovation. The most common themes that came up related to customers and key partners influencing the design of the revenue model and providing ideas for the basis of new business model designs or innovations. The discussion around the structure of each participant's business model led a number of the participants to define the distinction between customers – "To me a customer is someone who pays me" (Fund.Me); and partners – "Partners are always people we pay money to." (Rent.ly). However, when the interview focused on the influence of external partners, both customers and partners were seen to influence the business model. In

the case of influencing the revenue model, customers were consulted by the firms and worked collaboratively with them to create a pricing structure that worked for the market.

*JobShop: “It was through myself and my other co-founder talking to customers, experimenting with different pricing models, getting their feedback. That’s how we arrived at this co-pricing structure.”*

In the case of providing new ideas, interactions with customers and partners helped the participants to see opportunities for creating new value propositions. With both Full Cargo and Fund.Me this led to the creation of potential ‘businesses within businesses’ that utilised different business models but ran parallel to the primary business model.

*Full Cargo: “All those digital add ons came about from talking to our customers, saying well, your model does not address this, your model does not address that and actually weren’t available in the market digitally.”*

*Fund.Me: “We never ever thought about the fact that we could provide value to a Telco and an insurance company and then they phoned us and said, ‘You’ve got all this data on small business, that’s the data we need.’ [And] we can sell all that data now.”*

In contrast to the innovative influence of partners, the founder of Property Direct spoke about how the addition of new partners to his business model led to limitations to the agility of the business model.

*Property Direct: “If we had not had such a strong bond with those partners, what would the business be like? I think that we would be a lot more flexible. We would probably be more disruptive in that we would change our value proposition without having to keep a whole bunch of people happy... I guess you can say that while it’s good to have your customers being your partners, it also limits your ability to be adaptive and in today’s world you need to be adaptive.”*

#### **5.5.1.2. Providing Access to Market**

Providing access to market emerged as a prominent theme when discussing the influence of partners with the participants in the study. In eleven of the cases, the participants noted how their partners had helped them to grow by providing access to market. Similarly, in eight of the cases, the participants noted how their business models provided access to market for their partners. By developing relationships with partners, the focal firm was able to leverage their relationship to utilise their partner’s channels, resources and relationships to grow their businesses.

Fund.Me: *“[Our key partners] are the ones who are gonna help us to grow into new countries because they have those contacts with government.”*

JobShop: *“...Giving us access to decision makers globally where we can promote our brand and promote our company. That’s how they’ve given us value.”*

Three of the participants in the study noted how their partners helped to give them credibility in the market. This credibility by association opened doors for the focal firms and helped to bolster the brand of these growing companies, giving them access to new partners and customers.

Fund.Me: *“So a lot of the partners add credibility and weight to our go-to-market opportunity while we’re becoming known.”*

JobShop: *“So obviously our investors provided financial capital, but the reality is that our investors have given us a huge amount of credibility because we are a Silicon Valley backed company. When we pitch to customers and say, look the founder of eBay has invested in us, that gives us credibility.”*

In other cases, the focal firm used their multi-sided platform business model to create a market that could be served not only by themselves or by the originally intended users, but also by additional partners that could create and capture value with the market. Part of creating access to this market was that the market created was ‘bespoke’, or contained a very specific set of customers. In this sense, the focal firm’s business model became a channel for their partners’ business models.

Safari Sights: *“They can now have access to a community that’s interested in their offering, which is like a lodge or a Safari or stuff like that, and so we built our model around that to help these lodges with their businesses.”*

Property Direct: *“Yeah, it’s a very simple value proposition. We are an advertising platform so effectively people pay to get exposure to our visitors.”*

Salud: *“I think you have a lot of brands that are out there wanting to do campaigns on our platform because it’s very bespoke, it’s very targeted.”*

Through providing access to market for key partners, the focal firm was in essence augmenting its own business model with that of their partners. This occurred as their partners added additional services to the focal firms’ platforms and therefore increased the amount of value created on these platforms. This “plugging in” of external partners into the platform was seen as vital for delivering rich value to customers of the platform.



Rent.ly: *“I think partnerships are essential to being able to offer a lot of, like, not necessarily always clearly defined individuals pieces of value, but to be able to deliver an experience. I can’t see any way to do it without actually entering into a partnership.”*

The need for complementarity between the focal firm’s business model and that of their partners on the platform was further articulated by the founder from Rent.ly.

Rent.ly: *“[Partners] have to add value to our customers. We don’t allow people to target our customers, we allow them to offer them an improvement... one of the entry criteria for our company is that ‘is using your service better with Rent.ly than it is by going direct?’.”*

### **5.5.1.3. Influence of the Size of Partners**

The degree of influence that partners had on the focal firm’s business model was influenced by its size in relation to the focal firm and by its influence over the focal firm, usually in monetary terms.

Bed Net: *“And my big [partners], they have APIs that I’ve obviously integrated with them... they’re bigger than me so I have to do what they say.”*

## **5.5.2. Value Co-Creation with Partners**

The co-creation of value between the focal firm and their key partners emerged as a prominent theme in the analysis of the interviews. The process of creating this value was facilitated through the co-creation of value propositions as well as through the leveraging of partners’ resources.

### **5.5.2.1. Co-Creating value propositions**

Value could be co-created between partner firms in a number of ways. As was noted above, partners could provide access to market to increase the value created and captured by the focal firm. They could also be involved in co-creating value propositions with the focal firm. Two of the firms in the study noted how they worked with their partners to co-create either the focal firm’s or the partner’s value proposition.

JobShop: *“Other players in our broader ecosystem are partnering with us to boost their own brand, but also to help our value proposition to job seekers become stronger.”*

Two of the participants in the study noted the need to open up their business models to their partners to increase the amount of value they could offer to their customers. They saw the leveraging of external parties' capabilities as a legitimate tool for driving innovation and value creation on their platforms.

Rent.ly: *"We will never be able to conceive of everything that can be built. We'll never have the capacity or resources to fill everything or the creativity or impetus to build it."*

Mrkt Plc: *"There's always somebody who's better at a specific solution. And for us to re-invent the wheel each time, costs will be prohibitive."*

The idea of transforming the business model into a collaborative space where partners could be instrumental in both creating and capturing value was seen as a powerful co-creative strategy for building the business model.

Rent.ly: *"There's millions of spaces to generate value to the point where our actual business model long term is less about trying to extract all that value ourselves but trying to enable others to deliver that value through our platform."*

The founder of Rent.ly suggested that these spaces of value co-creation could be enabled through the creation of ecosystems around the business model of the focal firm. Along with enabling others to create value, this was also seen as a way of building competitive advantage.

Rent.ly: *"Ecosystem is the ultimate defensibility against competitors... That's one of the benefits of an ecosystem, you can't kill it overnight. You can't build it all overnight. [And] when you're that kind of business where people are building other businesses on top of yours, you definitely earn yourself to be a long-term prospect."*

Co-creating value with partners was therefore seen as a way of creating additional value for customers and was related to creating an ecosystem around the business model of the focal firm.

#### **5.5.2.2. Leveraging Resources**

Five of the participants in the study spoke about leveraging the resources of their partners to help them operationalise their business model. In one instance, the founder of Mrkt Plc went as far as to say, "For us, the partners are sort of key resources." In some cases, the participants noted that there was a difference between the pure functioning of the platform, as a channel that connected two or more sides, and the

additional value that it provided to customers. In these cases, it was necessary to leverage the resources of external partners to deliver this value.

Rent.ly: *“I would say external partners are essential, especially to a platform business because if your business is the platform... It requires a whole other specialised set of resources [to deliver] all the stuff that you might want to offer.”*

External partners were also seen as providing resources that the participants' firms either couldn't afford or didn't have in-house at present.

Full Cargo: *“[Partners] bring distribution network to your model and you can leverage resources that you don't have in-house.”*

Another way of leveraging the resources of external partners was through licensing the firm's products or service to them. This was done by four participants in the study where they created a “white label” version of their product which their external partners or customers then used. This essentially allowed the focal firm access to the resources of the licensing firm, such as their sales team, distribution channels and customer network through the partner licensing the firm's product. It also allowed the focal firm access to the markets of their partners.

Mrkt Plc: *“[Our partners] have an asset which is a network... and they basically do all the sales for us.”*

Property Direct: *“We proposed an idea that would develop an extra line of business for them, drive listeners to their website and get our properties and contact details out there. We would load our properties on their website, which they could white-label as [Partner Name] Property, and they would drive their users to the listings. We would then give them a share of the revenue generated from the property sales.”*

The ability to realise the focal firm's business model through its partners' models proved to be a powerful tactic in the cases of the firms noted above. It allowed their partners to create additional value for their customers and helped the focal firm to grow their customer base. Had their partners created these business models from scratch, they would have been highly complex and discontinuous innovations from their core models, however by leveraging the focal firm's business model, the partner firms were able to augment and innovate their business models with ease.

For one of the participants, the community around his platform was seen as a key resource that supported his business model. The community tied into the business

model by playing an active role in creating and sharing the content that was at the heart of the value created through the business model. This was driven by a feedback loop where the creation of more content by the community led to the growth of the community.

*Safari Sights: "I think the key resource that we've always identified is... getting a community of people that are sharing their experiences in real time... because content is what drives the growth of our community. [And] for me, it's always about the community and trying to grow the community and get people more interested in it."*

In this way, the business model of Safari Sights was able to leverage the resources of their community members to create value on the platform which in turn led to the growth of the platform.

### **5.5.3. The Nature of Relationships with Partners**

Many of the participants in the study noted the important role that relationships played with customers and partners in maintaining their multi-sided platform business models. When deciding on the depth of the relationship with partners, two of the participants noted the need to build deep partnerships with external partners when the resources they had were core to the focal firm's business model.

*Rent.ly: "If it's something very close to our core, we like to partner more deeply but if it's something that is, like for example, we do a lot of API integrations and stuff. That only makes sense to do it as a license kind of deal."*

The value of trust within deeper relationships was seen as a key component of the relationships with partners. This trust helped to build strong partnerships between the focal firm and their partners and aided in the partners going into new business ventures together.

*Bed Net: "Because they trust us and we're a premier partner, they are going into those markets... and they know if we go in with them, their data is going to come right."*

*Full Cargo: "There was trust between the MD's and myself because they know me. Also, another thing about partnering, it's very important to have an existing relationship or a strategic referral."*

### 5.5.4. Summary of the Findings to Research Question 3

In answering research question three, it was shown that partners often played a key role in the design and innovation of the focal firm's business model. Partners could be involved in a simple business model innovation – such as the refinement of the revenue model – or could provide the focal firm with new ideas that led to complex business model innovation where multiple parts were changed at once. Partners could be enablers, but could also limit the scope of business model innovation. It emerged that the focal firm and their partners could be involved in co-creating value through the co-creation of one, or both, of the parties' value propositions. Value co-creation could also be facilitated through the leveraging of one party's resources for use by the other. Much of the value co-creation was facilitated through one of the firms augmenting their business model with the others'. This occurred through the focal firm engineering its business model to be a collaborative space or through licensing the focal firm's model out to their partners by "white labelling" their product or service. This allowed the partner firm to create new value without having to innovate their business model. Finally, the nature of relationships between the partners in the value network was identified. It was revealed that deeper relationships are built with partners who are more necessary for the core functioning of the business. The value of trust in deeper relationships was also noted.

### 5.6. Results: Research Question 4

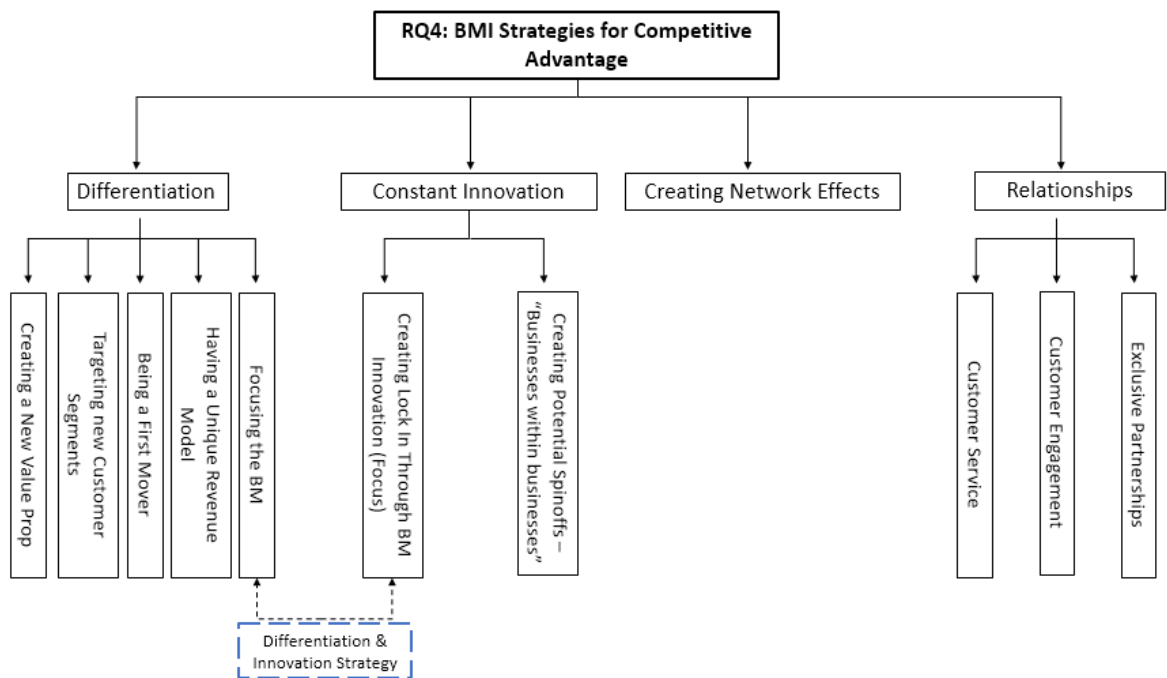
*What strategies do multi-sided platform owner-managers use to create competitive advantage through business model design and innovation?*

One of the primary focuses of this research was to understand how owner-managers use business model design and innovation to create competitive advantage. The study uncovered four broad strategies that owner-managers use. Firstly, the participants sought to differentiate their business model from other models within their market through a design strategy. Secondly, the participants in the study aimed to create business models with constantly evolving sources of value for customers. Thirdly, by trying to get a large number of customers to sign onto their platforms, they tried to create value through network effects. Finally, the participants tried to build strong relationships with partners and customers to create competitive advantage. Although the methods for creating competitive advantage are laid out here into four distinct themes, this is not to suggest that these themes are mutually exclusive. In many cases the participants used multiple methods together for creating competitive advantage (See Figure 12). As the

co-founder of WorkFindr noted multiple methods are needed to sustain competitive advantage:

*“Especially with tech now it’s so easy to kind of copy it but there’s certainly other things that are difficult to copy. So, I think relationships... And then there is probably a degree of IP. And geographically we are pretty fortunate being in South Africa... because there’s no one like us here.”*

Figure 10: Overview of Results for RQ 4



### 5.6.1. Differentiating the Business Model

A number of the participants in the study chose the strategy of designing their business models to be different from competitors as their method for creating competitive advantage. This differentiation was delivered by creating new value propositions; targeting new customer segments; being the first to enter a market with an established or new business model; and through a unique revenue model. An additional strategy of ‘focus’ was noted, however this strategy is essentially both a differentiation and innovation strategy.

#### 5.6.1.1. Creating New Value Propositions

Five of the participants in the study used creating value propositions that were new to the market as one of their strategies for creating competitive advantage with their business models. Creating new value propositions involved creating new sources of value for customers by bringing them new products or services not available elsewhere.

Salud: *“We have put much more emphasis on the marketing promotion [than competitors] ... and I think it gives value to the customers. They have a lot to talk about.”*

Fund.Me: *“There’s a lot of people below us who are doing well with the loan applications, but none is actually bringing them the lead.”*

A new value proposition created by itself is unlikely to create competitive advantage on its own as it may be easy to imitate. The researcher therefore adds here as a caveat that in no cases did any of the participants suggest that creating a new value proposition alone would provide them with competitive advantage. This was supported by the founder of Property Direct.

Property Direct: *“If you wanted to win as a digital agency, in other words an estate agency that does most of the work online, then you would have to... your value proposition wouldn’t be slightly cheaper commission... It would have to be much more complicated than that. It would have to be great service, good agents... and a slightly cheaper fee but that’s not the thing. To save 2 or 3% commission is not going to swing the whole market over.”*

It is valuable to note how partners and customers were involved in the creation of some of these new value propositions as outlined in section 5.5.1. This shows an example of competitive advantage strategies emerging out of a symbiotic relationship between partners in an ecosystem.

#### **5.6.1.2. Targeting New Customer Segments**

Two of the participants in the study targeted unserved customer segments or partners with their business models. In the first case, the founder of Gym Buddy targeted an unserved set of partners with his business model that provided access to independent gyms and studios. However, the value proposition itself was not entirely new although the customer segment and partner selection was. In the second case, the founder of JobShop developed his business model to meet the needs of an unmet target group of users – blue collar workers looking for jobs. Targeting new customer segments allowed these firms to focus on a part of the market where incumbents weren’t focusing.

JobShop: *“I would say that a part of [what makes the model successful] is going for the low end of the market where recruitment agencies don’t typically play.”*

The founder of Gym Buddy noted that part of their advantage in targeting new customer segments was that their potential competitors – who later became their partners – simply

could not interact with Gym Buddy's partners. The incumbents did not have the agility to offer value to Gym Buddy's partners in the way that they needed it.

Gym Buddy: *"It's actually really difficult for something as large and as sophisticated as a medical aid to interact with an independent gym or studio in a way that works for the independent gym or studio. The technology gap between Tracy B who runs her Pilates studio on WhatsApp and [The Big Medical Aid] is just so big that... they just don't know how to talk to each other."*

### 5.6.1.3. First Mover Advantages

First mover advantages were seen by seven of the participants as creating competitive advantage for their business models. However, it was noted by six of the participants that a first mover advantage was not a permanent advantage and that it was merely a "head start" against other competitors; it would not by itself create a defensible position for the focal firm.

Deep Dive: *"Defendable? No, I think we have about a 9-month head start."*

This head start was seen as opportunity that had been created through the development of a database that would take a notable length of time for competitors to create.

Fund.Me: *"What's keeping us continually ahead of the curve as other people try and do that is [our key partner] spent 5 years gathering the data on all of the lenders and then handed it to us. So, kind of – you know if the race started here at a 100m sprint, we were at the 90m mark and let's go. So, that's an opportunity."*

In four of the cases, the business models being introduced were not new business models. They were either imitations of models proved internationally or slight deviations on those models. However, a first mover advantage still aided in providing competitive advantage for the time being for these models in the South African market.

Gym Buddy: *"The big thing that we have here is that we could kind of gauge based on other platform models, you know at certain stages, how long it would take [international competitors] to come to South Africa. And so, we knew we had enough time to be pretty far ahead."*

WorkFindr: *"And I think geographically we are pretty fortunate being in South Africa that the market is kind of a lot less competitive than say now the U.S. where there are probably hundreds of start-ups like us. There are not many, there's actually no one like us here."*



#### 5.6.1.4. Differentiating With A Unique Revenue Model

A unique revenue model was noted by a number of the participants as a strategy for creating competitive advantage. In the first case, the revenue model of charging zero was being implemented by the founder of EZ Match to build a network and create lock in with customers. In the second case, the development of a unique and simple revenue model was used by Bed Net to differentiate the firm from competitors and was a vital component of their business model that led them to capture the entire market. The business model choice of a simple revenue model also allowed them to simplify their resource structure by reducing the computational and human power – or infrastructure - needed to run the business.

*Bed Net: “You know, your revenue model it’s got to be a simple proposition... It’s linked directly to your cost structures, and [our revenue model] was a simple sales model as well. It actually required very little internal infrastructure to track it... And I think that the revenue model was key. I think it was in the sense [the reason] that we’re the last man standing where all the other guys [who] had other mixed models or commission based models, they all failed.”*

#### 5.6.1.5. Focus

As noted above, ‘focus’ exists both as an initial design differentiator and as an innovation strategy. Two of the participants in the study consciously pursued a business model strategy of focus whereby they actively limited the breadth of their business model. To this end, they offered a limited number of services to a specific customer segment and utilised a less diverse group of partners. In a number of the cases, the strategy of focus was applied to business model innovation, whereby the participant actively chose not to change the business model more than incrementally on a limited number of occasions throughout the life of the business.

*Bed Net: “I reckon one of the other biggest things that [my co-founder] and I got right was knowing what to say no to... So, actually turning down business or relationships actually has proved to be vital. We remained focused and used the resources that we have to do the things that we can rather than getting pushed and pulled in all directions.”*

The founder of Salud noted how their business model ‘focus strategy’ made it difficult for competitors to offer similar value to customers because their competitor’s business model – and specifically their revenue model – prevented them from doing so.

Salud: *“Uber eats for example, if you want to consider them a competitor to us. They can’t do it. They just had too much on their platform to focus on one thing and do it, you know, do that as a revenue model. It would take a lot of time for them to build it and then they [would have] to push so many other things [out].”*

## **5.6.2. Constant Innovation**

Fund.Me: *“And then the constant innovating going forward in our model gives us another edge.”*

Constant innovation of the business model was seen as a means to create competitive advantage through the business model. Constant innovation led to firms creating lock in with customers through the creation of rich, complementary value propositions as well as leading to potential spinoff businesses – or ‘businesses within businesses’ - that would drive current and future growth.

### **5.6.2.1. Creating Lock In Through Business Model Innovation**

Four of the participants used the strategy of regular innovation to create lock in for their customers. This was done by evolving and expanding the value proposition for customers to increasingly add more value to their interactions on the platform. They did this by adding additional, complementary services to the platform which integrated deeply into the lives and businesses of the customers. Additionally, in contrast to potential spinoff businesses that created entirely new value propositions, lock in was entrenched through incremental innovations to the value propositions offered on the platform.

Bed Net: *“The more you can do for the guy with his.....it’s like an ERP system. It’s running every part of his business and to change it, he’s got his invoices and his reporting and his printouts and his registration letter when you arrive in the morning, that sort of thing, it’s just a lot. And then now we’re doing the payments for him as well, so all his banking is being done and then all the commission splits with all the other channels is being done.”*

JobShop: *“Additionally we’re trying to add more features to our product to enhance the lock in factor if you like. We are trying to add new tools to enable our employers to keep track of the candidates that go through their process... So, we want to continue to add more value to our employers.”*

In the case of Rent.ly, the founder constantly increased the scope of complementary services offered to customers using the platform, making the service more convenient and efficient. This led to what he called “creating dependency” with customers.

*Rent.ly: ‘Our role is to create dependency and making the act of renting as stupidly simple and elegant as possible... From a business priority side, you need to be driving towards creating dependency. It creates so much value in a single place, ranges from heart, mind and wallet and gets your customers to invest essentially their lives with you and that’s a frigging hard thing to challenge. It’s very expensive and so time consuming for a competitor to take over.’*

This strategy was considered to be complementary to the strategy of focus where the new elements added to the business model were complementary to each other and incremental to the current design.

#### **5.6.2.2. Creating Potential Spinoffs**

In contrast to the differentiation strategy of focus noted in section 5.6.1.5 above, the concept of creating potential spinoff businesses – or ‘businesses within businesses’ - was noted by two of the participants as one of the strategies used to create competitive advantage. Creating potential spinoff businesses within the business model was seen to provide competitive advantage by creating new revenue streams in one case and through creating agility for the focal firm in another.

*Full Cargo: “If [the product is] not available then I create it and add it on and I can spin it off as a separate business in the future... [And if a key partner] phones me tomorrow and they say we no longer want to underwrite your product, I’d be able to switch it off immediately... So, if I close it, I close the revenue stream, but my business keeps on going.”*

These ‘businesses within businesses’ did not necessarily have to be spun out of the core business model to provide competitive advantage. The complementary nature between the core business and the potential spinoff businesses helped to create an array of new opportunities for the founder of the business.

*Fund.Me: “The thing I love about Fund.Me is that Fund.Me genuinely has other revenue streams because when you link someone who wants finance with someone who has finance there’s a whole lot of opportunity there that we are only just discovering and unpacking... [And] how can I explain it; there’s like businesses within businesses here.”*

### 5.6.3. Creating Network Effects

The creation of network effects as a strategy for competitive advantage was noted by twelve out of thirteen of the participants in the study. Network effects were presented by a number of the participants as one of the core elements of multi-sided platform business models.

Salud: *“It’s all about getting users faster than anyone else. That’s the core principle of the platform business model.”*

Although there was almost unanimous agreement around the centrality of network effects to the functioning of multi-sided platforms, there was a rich diversity of views around their creation. The network itself was seen by two of the participants as being one of the key resources in their business model.

JobShop: *“Our database is a key resource, a key asset.”*

The network was also seen as one of the aspects of the multi-sided platform business model that conferred the greatest degree of defensibility to the model.

Bed Net: *“So [the] network effect... has proven to be a major advantage over competitors. So, it’s very difficult for somebody fresh to start and try and pull away the stock from us.”*

JobShop: *“I think the best defence for us is not the technology, it’s the base. The network base.”*

In one case, the network was seen as being one of the necessary conditions for the business model to work.

Full Cargo: *“Only when there is critical mass does it become a market; does it actually function.”*

The network effect could be combined with additional strategies for creating competitive advantage. The founder of Bed Net saw the potential for using a first mover advantage to create an unassailable position by connecting this with the creation of network effects. This was tied into a powerful business model that differentiated itself through both customer service (5.6.4.1) and the revenue model (5.6.1.4). Bed Net used this combination of strategies to capture the entire local market and is currently expanding into East and West Africa.

Bed Net: *“We recognised right at the beginning that there was going to be a network effect. There was nobody else doing it at the time in South Africa, so we felt like*

*ok, we've got a little bit of a head-start here, but you know, it's going to be a race across the prairie."*

The strategy of externally licencing the firm's product or service to customers through "white-labelling" the platform emerged as a creative way of creating network effects through pooling the customers of the focal firm's customers.

Mrkt Plc: *"The power of what this platform is, is that it's actually tapping into everybody's [white-labelled] platform... And this is also going to be what saves us at the end of the day from a new entrant."*

However, in spite of the primacy of the network effect, the network effect was never mentioned in isolation as the only strategy for creating competitive advantage. It was always paired with a least one other strategy that related to the logic of the business and the value that it provided to customers. Importantly, one participant noted that although the network effect was necessary, it was not sufficient for maintaining competitive advantage:

JobShop: *"The users, the network effects. That's what drives competitive advantage. But to maintain that competitive advantage and to grow the base, you need to continue adding value."*

This was supported by the founder from Property Direct.

Property Direct: *"So, you know, coming back to your point about what are the other things that are important outside of just selection [or having a high number of users]... I would say that in some industries, there are other things that are important and that you'll need to solve those problems."*

#### **5.6.4. Relationships and Competitive Advantage**

Relationships with customers and partners were seen as a key tool for creating competitive advantage. The relationship tools used to create competitive advantage could be split into three different areas, namely customer service, customer engagement and locking out competitors.

##### **5.6.4.1. Customer Service**

Four of the participants spoke about the power of customer service for creating competitive advantage. Although it was noted that it was difficult to stop a competitor from imitating the focal firm, customer service could act as a significant defensive barrier against competitive efforts. Because the nature of a multi-sided platform is that it

connects two or more sides that are independent of the focal firm, it was interesting that customer service arose as a key theme in the analysis of competitive advantage. Although the parties delivering their service over the platform were in control of that service, the founders of the platform still saw it as being vital that they provide a high degree of customer service to users of the platform. This suggests that the interactions with the platform business are deeper than the interactions between the two sides of the market using the platform.

*Fund.Me: “How do you circumvent a competitor from copying what you’re doing? You can’t. [But] if you deliver a good service that fits their needs they are not going to go to the competitor.”*

*Bed Net: “It’s naturally copyrighted just the way it is but there’s no need to get a patent. It’s no innovation. The real innovation I think comes from... making sure you deliver and interact with your customers properly you know, in a consistently high-quality way. And that’s difficult to reproduce. You can’t copyright that, you know.”*

#### **5.6.4.2. Customer Engagement**

Customer engagement was seen as a tool for creating additional value for customers in two different ways. In the first way, engaging the customer increased the value that the platform offered to the customer directly. This positive engagement was purposefully created to get customers to recommend the platform and therefore to build network effects.

*JobShop: “Okay, so let’s start with job seekers. You rightly point out that network effects can only flourish if your customers are engaged, right? They don’t engage, then they’re not likely to recommend you to anyone and therefore you won’t drive network effects. We constantly engage with our job seekers.”*

In the second way, customer engagement was created endogenously through tapping into platform’s community and having the community create and drive the content and interactions on the platform. These engagements had a positive feedback effect, where content that was posted by members of the platform was then shared by other members of the community, leading to the content going “viral”.

*Safari Sights: “Our focus of what we want to get out of the community is for them to be a part of it by sharing their experiences or by sharing other people’s experiences so like that’s kind of what makes it go viral. And that’s really the core.”*

#### 5.6.4.3. Exclusivity of Partnerships

The exclusivity of partnerships was used as an avenue for creating competitive advantage, with two of the participants noting exclusivity as a source of competitive advantage. In the first case, the founder of Fund.Me had locked competitors out of the market by securing exclusive access to a key partner, in their case, the government. This allowed them to create a significant barrier to entry against competitors.

*Fund.Me: “Our main competitive advantage is that we’ve locked everyone out of government. And so that’s helped us lock down a big opportunity.”*

The exclusive partnerships strategy also occurred with the two firms that utilised the strategy of creating potential spinoff businesses within their business models. In the case of Full Cargo, the exclusivity of the deal was reciprocal in that Full Cargo also had to grant their partner exclusive access to their market or technology. However, the founder was able to leverage this exclusivity with her agile business model. She could outwardly license a part of her business model to a partner exclusively, but then still use the technology herself when the license expired. Furthermore, she was in a riskless position, with the partner unable to use that technology against her after the license expired.

*Full Cargo: “If I created the product, for example, the digital insurance, that IP remains mine and I can then sell it to [Banking Partner 1] or [Banking Partner 2], it doesn’t really matter who. They get the exclusivity to underwrite it, I get a referral fee on every single premium and also get involved in demand for a product that didn’t exist before. So, in 18 months’ time, I can go back to them and say do you want to buy this or can I sell it to somebody else?... And what is the business of an insurer creating a transport market place, it’s not his business. The add-on is his business, but not the core.”*

#### 5.6.5. Summary of the Findings of Research Question 4

In answering research question four, four broad themes emerged as strategies for creating competitive advantage with business model design and innovation. Firms were seen to employ four design strategies at the outset when they designed their business model in order to differentiate it. These were creating a new value proposition, creating a unique revenue model, targeting an unserved customer segment and being the first to enter a market. A number of participants also followed a strategy of focus in both the initial design and the later innovation of their business models. In terms of innovation strategies, firms focused on creating new business models within their current models and on innovating constantly to create rich, complementary value propositions and

services. Network effects were seen by almost all participants as being vital to creating competitive advantage, however, it never occurred as a strategy on its own; it was always accompanied by an additional value creating strategy. Finally, building relationships with customers and building exclusive relationships with partners emerged as prominent tools for creating competitive advantage. Figure 12 below presents a summary of these findings.

Figure 11: Business Model Design Strategies

Re-named Company	Differentiator				Innovating Value			Relationships			Network Effects
	New Value Prop	New Market Segment	New Revenue Model	First Mover	Creating Lock In	Spinoff Businesses	Focus	Customer Service	Lock out competitors	Engagement	
Fund.Me	x			x		x			x		x
WorkFindr	x			x	x				x		x
FullCargo	x			x		x		x			x
Rent.ly	x				x		x	x			x
Safari Sights	x			x						x	
Deep Dive				x							x
Bed Net			x	x	x		x	x			x
EZ Match			x								x
Property Direct	x										x
JobShop		x			x		x			x	x
Mrkt Plc				x							x
Salud	x						x	x			x
Gym Buddy		x		x							x

## 5.7. Conclusion

This chapter has presented the research findings based on the four research questions proposed in chapter three. The findings showed that all of the business models in the study were created from a market pull paradigm, influenced by the founders' histories, trends spotted in the market, existing business models and, in one case, by a partner. The market pull designs suggested that the multi-sided platforms in the study had business models that brought new parties together in new ways. It is elucidating to note that even though partners play a key role in the latter design and innovation of multi-sided platforms, in all but one case partners were not involved in the initial design.

The findings suggested that multi-sided platform firms primarily face challenges around customers, partners and acquiring key human resources. Other platforms were seen as



enablers for the focal firm's multi-sided platform, in part through influencing the behavioural patterns of customers by getting them habituated to using platforms.

When looking at the influence of partners on the multi-sided platform business model, the distinction between customers and partners became blurred in some cases. Partners were seen to influence business model innovation through giving the participants feedback on aspects of their business models and also through giving ideas for more complex business model innovations. The different parties in the focal firm's value network often worked with the focal firm to co-create value. This occurred where the focal firm engineered their business models to be collaborative co-creative spaces; where firms provided each other with access to market; where firms leveraged each other's resources; and through "white labelling" the focal firm's product or service for use by partners and customers. A number of the participants also spoke about the nature of the relationships between their business and their key partners, noting the depth of important relationships and the need for trust.

The findings closed off with an exploration of the business model design and innovation strategies used to create competitive advantage. These emerged broadly as design strategies for differentiation; innovation strategies for creating increasing value for customers and partners or creating 'businesses within businesses'; a discussion of network effects as a necessary – but not sufficient – condition for competitive advantage; and finally, the development of relationships with customers and partners as a key strategy.

The following chapter will proceed with a discussion of these results.

## Chapter 6 – Discussion

### 6.1. Introduction

This chapter proceeds with a detailed discussion of the results from the analysis of the semi-structured interviews presented in chapter five. The results are discussed as they relate to each research question and as a whole provide insights into the process of business model design and innovation in multi-sided platform business models. Through comparing and contrasting the results of the research with the extant literature, this chapter builds on the current corpus of business model literature.

### 6.2. Discussion of Research question 1

*How do owner-managers design multi-sided platform business models?*

This research question identified how owner-managers discovered opportunities to create multi-sided platforms. Although research has been conducted on the process of business model innovation, the researcher was unable to find empirical studies that focused specifically on the initial design process of multi-sided platforms. This research therefore extends this area of the literature. The research question is discussed based on the themes that arose through the analysis of the results.

#### 6.2.1. How Owner-Managers Create Multi-Sided Platform Business Models

##### 6.2.1.1. Market Pull vs. Technology Push

The literature suggests that new business models are designed and innovated to bring new technologies to market (Teece, 2010; Chesbrough 2010) or to target new segments or new markets with existing products (Taran et al., 2015). The former of these is considered a technology push strategy and the latter a market pull strategy (Dmitriev et al., 2014). The results presented in chapter five showed that in all of the cases under study, the participants had developed their business models using a market pull paradigm, identifying an opportunity in the market and creating a business model to meet that opportunity. A number of the participants spoke about conducting the work of the platform manually at first or reverse engineering the technology to fit the market need. Due to each firm in the study essentially being a technology firm at the time of the interviews, this finding was surprising. However, numerous authors have noted the need for first developing the value proposition of the business model and then developing the other components of it, including the resources required to implement it (e.g. Magretta,

2002; Voelpel et al., 2004; Johnson et al., 2008; Teece, 2010). Furthermore, the benefits of creating a business model that first focused on the value proposition and then later on the creation of the technology was noted by Dmitriev et al. (2014) as leading to the quicker development and commercialisation of the business models. This was supported by the research where all of the participants in the study had been aware of the commercial application of their ideas from the beginning.

Through placing the problem to solve or market opportunity at the centre of the business model design, the owner-managers in the study brought together multiple parties to solve this problem. By utilising a multi-sided platform, the firms in the study brought together new parties in new ways through what Amit and Zott (2001) would term a 'novelty-centred' design theme. The paper now discusses how these novel opportunities were identified.

#### **6.2.1.2. Identifying Opportunities**

As noted above, in every case the firms under study sought to fill a market need with their business models. One of the key determinants of identifying the opportunity was the history of the firm's founders. This supports the findings of Rumble and Mangematin (2015) who showed that the history of a firm's founders effected the design of their business models. It also supports Sosna et al. (2010) who noted how the history of the founder influenced their cognitive maps which in turn influenced their business model design and the strategies used when starting a new business. Similarly, this supports the assertion that the cognitive lenses of managers influence the kind of business models that they can conceive of (Baden-Fuller and Mangematin, 2013). Furthermore, the market trends identified by four of the participants in the study influenced the business models they created. Gassmann et al. (2013) have noted the ability of market trends – or “weak signals” (p.1) – to influence the creation of new business models. As the identification of trends in the market is ultimately a function of the cognitive maps of the founder, this further supports the proposition that business models are influenced by the cognitive maps of the firm's founders (Baden-Fuller and Mangematin, 2013). The act of first identifying an opportunity and then building the business model around that opportunity, as all of the participants in the study did - supports the research conducted by Cortimiglia et al. (2016), where entrepreneurs built their business models around an opportunity and then created the resources and value networks in their business model to fulfil that opportunity. This was in contrast to established firms who looked first at what their resources allowed them to offer before deciding on the value proposition they would deliver.

Additionally, one of the firms in the study was given the IP needed to create her business model. This allowed her to create the business model with an outward-in process of licensing the IP which led to decreased R&D costs in developing the idea and shortened time to market (Chesbrough, 2007). However, as noted in section 5.3.1.2, the founder's creation of the core business model was still influenced by her history and her desire to solve problems that she had encountered herself, therefore still being a function of her cognitive maps (Sosna et al., 2010; Baden-Fuller and Mangematin, 2013).

In two of the cases, the participants had created their business model based on models that were currently working in another market. This supports the assertion by numerous authors that business models may be relatively easy to copy once they have been enacted in a market either as templates or recipes to replicate (Teece, 2010; Baden-Fuller and Morgan, 2010; Casadesus-Masanell and Zhu, 2013). Similarly, this supports the research by Frankenberger et al. (2014) who showed that business models could be crafted based on the patterns of extant successful models.

### **6.2.2. Summary of the Discussion of Research Question 1**

Research question one looked at the process of business model design for multi-sided platform firms in South Africa. The outright predominance of the market pull design paradigm showed that multi-sided platforms are designed to unlock value through connecting partners and customers in new ways. This suggests that these business models are designed through a novelty-centred theme (Amit and Zott, 2001). The founder of the firm was identified at the centre of the business model design process through the effect of their cognitive maps on the design of the business model, supporting the current literature (Sosna et al., 2010; Baden-Fuller and Mangematin, 2013; Rumble and Mangematin, 2015). Due to the influence of partners later on in the design and innovation of the business model, it was interesting to note that in all but one case, partners were not involved in the initial design of the business model. This may be due to the dominant logic (Chesbrough, 2010) of potential partners preventing them from conceptualising new business model ideas. In this case, it follows that it would be more feasible for an external party to spot the opportunity inherent in the platform and then to drive its creation. Alternatively, this may be a practical limitation, whereby it may be challenging for multiple parties with different business models or economic incentives to work together on one new business model.

## 6.3. Discussion of Research Question 2

*What are the challenges and enablers of multi-sided platform business model design and innovation in South Africa?*

This research question identified the challenges and enablers of creating and innovating multi-sided platform business models in South Africa. It was suggested that a developing market such as South Africa provides a unique insight into the challenges and enablers of transferring a business models from one context to another.

### 6.3.1. Challenge: Customers

#### 6.3.1.1. Customer Education

Seven of the participants in the study spoke of needing to educate customers about the value of their multi-sided platform as a challenge that was posed with the implementation of their business model. This included convincing customers that the business model had a valid value proposition and convincing them to pay for this value proposition. Even though Teece (2010) and Sorescu et al. (2011) have extolled the need for creating customer-centric business models, the challenges of getting customers to adopt new business models is conspicuously absent in the business model innovation literature. In contrast to the boundary spanning nature of business models (Zott and Amit, 2010), it appears that much of the business model literature focuses on the internal challenges to business model innovation with a limited focus on the external challenges of business model innovation. Although a number of authors (e.g. Baden-Fuller and Haefliger, 2013; Holm et al., 2013; Chesbrough, 2010) have clearly stated that the right business model can be the differentiator between a successful or failed product, the challenges of presenting this business model to customers has not been noted in the literature. This suggests then that founders of a firm need to consider the degree of education that will be required when introducing new business models into markets, taking cognizance that a radical business model innovation may enjoy only limited success if it is hard to show customers the value in the business model. Moreover, it suggests that a radically new business model design may encounter resistance from customers when transferred to a new market. The corollary of this is that the transfer of a familiar business model to a new product may yield better results than the transfer of a radically new business model to a familiar product.

### **6.3.1.2. Customers' Ways of Working**

This study showed customers ways' of working as posing a challenge to creating and innovating multi-sided platform business models. This amounted to challenges getting customers to adopt the focal firm's business model due to internal ways of working – or to the dominant logic (Chesbrough, 2010) – of these customers. When customers are not open to new ways of working or when their internal processes limit their ability to use new systems, they may be prevented from engaging with innovative business models. Frankenberger et al. (2013) suggested that this may lead to the focal firm changing its business model to better suit the needs of customers. Specifically, in the case of Deep Dive, the company had to create packaged versions of the offerings on its platform to better suit the needs of their customers, leading to an innovation in their value proposition and revenue model.

Two of the participants noted that these problems were related to the South African context, with local customers not able to adapt to their business models. This suggests that the context in which a business model is created plays a vital role in whether it will be successful. This speaks to the work of Teece (2010) who suggested that the suitability of a business model must be assessed within its environmental context. Similarly, this affirms the idea that taking cognizance that firms exist within environments should help managers and entrepreneurs to identify additional business model innovation challenges (Berglund and Sandström, 2013). It also places a caveat on the assertion that business models can be transferred from one setting to another (Teece, 2010; Baden-Fuller and Morgan, 2010) as small differences across markets limit the perceived value that a business model is able to offer. Finally, it adds to the literature by suggesting a specific environmental challenge in the market, namely the inflexibility of customers' business processes. Managers therefore need to consider not only their firm's dominant logic (Chesbrough, 2010), but the dominant logic of their customers when introducing new business models as B2B firms.

### **6.3.1.3. Customer Loyalty**

As noted in 5.4.1.3, getting customers to use a multi-sided platform was identified as a challenge by four of the participants in the study. Although in most cases it was seen to be easy to get both buyers and sellers onto a platform, it was difficult to keep the sellers on the platform as they used numerous similar platforms. This challenge of multi-homing, where users utilise multiple platforms simultaneously, was noted by Rochet and Tirole (2003) as introducing a significant degree of price competition between multi-sided platforms in a bid to steer users to utilise specific platforms. However, the co-founder of

WorkFindr also noted that it was easier to “capture the buyers... than the sellers”. This was done by adding additional value for the sellers beyond providing the lowest cost; through the strength of relationships and through a rich set of interlocking value propositions being created with their business model. This suggests that the value offered to users on a platform needs to be greater than simply lowest cost or highest number of users in contrast to what was suggested by Rochet and Tirole (2003).

### **6.3.2. Challenge: Partners**

The participation of partners in the business model of the focal firm lies at the heart of the open business model literature (Chesbrough, 2007b; Chesbrough 2017) and the challenges of working with partners has been noted by a number of authors (Holm et al., 2013; Ghezzi et al., 2016). These include the challenges of managing relationships between partners (Rajala et al., 2012; Berglund and Sandström, 2013) and the concomitant challenges with integrating the focal firm’s business model with that of its partners (Frankenberger et al., 2013; Ghezzi et al., 2016). This was supported in the study by one of the participants whose business model was unable to operate effectively because his partners were still figuring out their own business model. With their model dependent on their partner’s model, they had to wait for their partners to finalise their model before being able to integrate with it.

The reliance on the consistency of partners’ business models posed an additional risk to the firms in the study where they were susceptible to changes in their partners’ business models. When partners changed their revenue models, this had a significant impact on the revenue models of the firms in the study. This confirms the assertions by Storbacka et al. (2012) and Berglund and Sandström (2013) that there are interdependencies between the components of partners’ business models. This is arguably an unavoidable risk associated with partnering with firms that provide necessary resources to operationalise one’s business model.

An additional challenge relating to partners was that of not having the right partners present in the environment to operationalise the business model of the focal firm. This occurred with Bed Net, who had to wait ten years to operationalise part of their business model. This speaks to the need to create an adequate business ecosystem (Moore, 1993; Voelpel et al., 2004; Adner, 2017) if a multi-sided platform business model is to thrive. This upholds the boundary-spanning nature (Zott and Amit, 2010) of the business model, where the inclusion of partners is necessary for the business model to operate. While the business model may be a contingency that affects the strategy of a firm (Zott and Amit, 2008), this research shows that the presence of other players in the

environment is a contingency that affects the business model options of the focal firm. This in turn suggests that the design and innovation of a multi-sided platform needs to take the availability of partners into consideration when formulating the business model.

Partners could also be instrumental in reducing the level of innovation that was possible with the business model. This occurred with Property Direct when they included additional partners into their business model. This supports the assertion that partners can have a limiting effect on business model innovation of the focal firm (Berglund and Sandström, 2013). In the case of Property Direct, a disruptive online property company, the dominant logic (Chesbrough, 2010) of their new partners who were traditional property agents, had a dampening effect on their ability to innovate their business model. Therefore, the challenge of creating inter-actor configurational fit between both parties' business models led to limitations placed on the business model innovation of the focal firm, as posited by Storbacka et al. (2012). This contradicts the assertion by Sandulli and Chesbrough (2009) that open business models allow for greater adaption over time. Therefore, although multi-sided platforms may have greater access to resources, the limitations on their agility may erode the benefits of increased openness and partnerships.

### **6.3.3. Challenge: Key Resources**

Six of the participants in the study spoke of the challenge of finding key resources to operationalise their business models; with that split into the challenge of finding software developers on the one hand and building strong, diverse teams on the other. The business model literature does not specifically address the challenge of finding key resources, however this speaks to the need to consider the environmental availability of resources when designing a new business model. As noted above, whilst the business model is a contingency that affects a firm's strategy (Zott and Amit, 2008), the availability of resources is a contingency that affects the firm's business model. Although Cortimiglia et al. (2016) highlighted that entrepreneurs start their business models with their value proposition and then put together their resources and value networks, the challenge of key resource availability suggests that an entrepreneur needs to look at all the parts of their business model together when designing it.

### **6.3.4. Enablers: Other Platforms**

Six of the participants in the study spoke about the enabling affect that other platforms and existing digital technology had on their multi-sided platform business models. This focus on the importance of external parties in operationalising the focal firms' business



models points again to Moore (1993), Voelpel et al. (2004), Frankenberger et al. (2013) and Adner's (2017) discussion of the business ecosystems within which business models operate. It also supports the conception of business models as boundary spanning constructs (Zott and Amit, 2010). The firms in the study required not only the resources of these external platforms, but also relied on them to educate their customers about the value of using multi-sided platform business models, thereby acting as a remedy to the challenges posed by customer education in section 6.3.1.1 above.

The manner in which the existence of coexisting platforms shaped customer behaviour suggests that the adoption of similar business models across industries (Teece, 2010; Chesbrough 2010) may lead to positive outcomes for the growth in adoption of new business models by customers. Although this cross-industry adoption may lead to imitation of one firm's business model by another (Teece, 2010) it also increases customer adoption of the business model as an acceptable mode of transaction. Cennamo and Santalo (2013) have shown that a certain degree of differentiation and niche focus can be beneficial to a multi-sided platform and can lead to a market that is not winner-takes-all; this suggests that multiple platforms can benefit from co-existence which is supported by this research. This contradicts the literature on network effects that suggests that multi-sided platforms need to capture as much of the market as possible in order to be viable (Rochet and Tirole, 2003; Hagui, 2014). Competitive advantage may be achieved through the focal firm having greater linkages with other platforms instead of trying to be the only platform of its type in a market. This also suggests that there may be second order network effects created through the proliferation of platforms within an ecosystem, whereby the more platforms that are connected within that ecosystem, the higher the value of being part of that ecosystem. This is because, through membership of the ecosystem, platforms have access to other platform's resources and customers. Where competitor's business models complement each other, competition for the same customers can lead to higher profits for both of the competitors (Casadesus-Masanell and Zhu, 2013). This was supported in the study through the founder of Salud noting that competition would initially increase the size of the market.

These insights therefore affirm the literature which highlights the importance of the ecosystems in which firms operate (Moore, 1993; Voelpel et al., 2004; Frankenberger et al., 2013; Adner, 2017). However, it also builds on these insights in relation to the business model literature, suggesting that the coexistence of similar business models, whether they support the same value propositions and customers or not, may support the growth of these ecosystems.

### 6.3.5. Summary of the Discussion of Research Question 2

Research question two identified the challenges and enablers of designing and innovating multi-sided platform business models in South Africa. These challenges were shown to revolve around customer education and adoption of the business model; around the participation and prevalence of necessary partners and around access to key resources. Aside from access to software developers, and in two cases challenges with customers' ways of working, the research does not suggest that these challenges are specific to South Africa or developing economies in general. However, it did uncover potential challenges to transferring business models to new markets. It was identified that there is a shortcoming in the literature regarding the challenge of customer adoption of new business models, however the proliferation of multi-sided platforms was shown to increase customer adoption of multi-sided platforms. Moreover, the challenge of customer adoption extends the literature by suggesting that the dominant logic (Chesbrough, 2010) of B2B customers can influence the success of business model transferability. Similarly, the need to educate customers on the value of a new business model could also limit business model transferability. Therefore, it may be easier to transfer a familiar business model to a new product or service over transferring a new business model to a familiar product or service.

Although the importance of the ecosystem in which firms operate has been noted (Moore, 1993; Voelpel et al., 2004; Frankenberger et al., 2013; Adner, 2017) the role of existing platforms as an enabler for new platforms is an addition to the literature. This arguably contradicts the work of Rochet and Tirole (2003) who stated that the presence of competing platforms could lead to customers multi-homing, or using multiple platforms, and that this could put financial pressure on the owners of those platforms.

As it relates to transferability of business models across contexts, this research suggested that the co-existence of other platforms within a market presented a potential strength that aided business model transferability. This is in part due to the mitigating effect that coexisting platforms have on the challenges of customer education and adoption and was supported by the current proliferation of these coexisting platforms.

The challenges and enablers of designing multi-sided platform business models highlighted the need to consider the business ecosystems in which they operate (Moore, 1993; Voelpel et al., 2004; Frankenberger et al., 2013; Adner, 2017). It is from this point that the paper now moves onto a discussion of the role of partners within the ecosystem on the design and innovation of the focal firm's business model.

## 6.4. Discussion of Research Question 3

*How are partners involved in the design and innovation of multi-sided platform business models?*

This research question identified how the firms in the study operated within their wider ecosystems (Moore, 1993; Adner, 2017) with the goal of gaining a better understanding of the boundary spanning nature of the business models (Zott and Amit, 2010) of the firms under study. As was noted in chapter one, because of their reliance on the ordinary resources (Frery et al., 2015) of partners for value creation, multi-sided platforms were chosen for the study because the researcher believed they would yield greater insight into the role that partners play in the design and innovation of their business models. Furthermore, the researcher drew on the open business model literature to provide a framework for understanding the influence of the networks of partnerships that these firms operate within. A number of rich insights emerged from the data analysis, including the manner in which the participants in the study defined their partners in terms of their business models. Although many of the participants initially had separate definitions of customers and partners, on further discussion it emerged that often customers were considered partners who influenced the design of the business model. This supports the work of Chesbrough (2007) who suggested that in open and integrated firms, often customers and suppliers become partners to the focal firm.

### 6.4.1. Partners' Ways of Influence

#### 6.4.1.1. The Influence of Partners on Business Model Design

The influence of partners on the focal firm's business model was identified by eleven out of thirteen of the participants in the study. 'Partners as suppliers' and 'partners as customers' were seen to influence the business model of the focal firm through influencing the revenue model and pricing structure of the business model and through providing new ideas that led to the creation of new value propositions. The creation of these new value propositions led to radical business model innovation of the focal firm's business model in a number of the firms in the study. In these examples, customers identified opportunities for the business models of the firms to offer radically new value propositions. This supports the work of Ghezzi et al. (2016) who identified that external ideas could have a radical influence on a firm's overall business model. The influence of customers on the design of multi-sided platforms was also identified by Rumble and Mangematin (2015), who showed that customers of multi-sided platforms tried to mould the design of the business model to better fit their needs. However, this relationship was

seen as reciprocal as both the customers and the focal firm benefitted from a business model that could provide real value to the customers of the focal firm. Similarly, Saebi and Foss (2015) identified lead users as partners who could drive innovations within business models, especially through the creation of new value propositions. The value of customer centricity as a driver of business model innovation was identified by Sorescu et al., (2011) who showed how it led to the creation of more competitive business models. These insights suggest that there is a cyclical interaction that occurs between the firm's business model and the influence of its partners in its design and innovation. This cyclical interaction between external partners and the business model is supported by Frankenberger et al. (2013) in the initiation phase of their business model innovation model.

The research supported the proposed value of including customers and partners in the business model design and innovation process (Chesbrough, 2007; Lindgren et al., 2010; Ghezzi et al., 2016). This suggests that firms will benefit from actively engaging with their customers and partners to create business models that respond to the needs of customers and partners. Therefore, by allowing customers to influence their business model, firms can create truly customer centric business models.

#### **6.4.1.2. Providing Access to Market**

Partners helped the focal firm to capture value when they provided access to market for the firms in this study. This occurred when partners helped the focal firm to grow their business by promoting the business to the partner's customers and partners. In this research, the promotion of the business was often facilitated by close relationships between the focal firm and their partners.

The importance of key partners providing credibility to the focal firm was found in the study. Credibility opened doors and paved the way for access to new markets. This supports the RBV which suggests that intangible resources, such as firm reputation, can be valuable resources which confer competitive advantage (Wernerfelt, 1984; Barney, 1991). Strategic partnerships between established and new firms have been identified by Teece (1986) as an important tool for creating credibility for new firms. The identification of credibility as an important resource that can be exchanged extends the literature. This is done through highlighting the potential intangible benefits of partnerships within the value network of the firm. Although much of the open business model literature (e.g. Storbacka et al., 2012; Sandulli and Chesbrough, 2009; Lindgren et al., 2010) takes note of the value of leveraging both tangible and intangible resources – such as IP – within a partner network, less codified forms of value exchange are not

considered. This suggests that the intangible benefits of partnering with other firms should be considered an external resource.

The firms in the study were not only given access to new markets by their partners, but also provided access to market for their partners. In doing so, they were providing access to very targeted markets for their partners. However, through providing this access, the firms were also creating additional value through the complementarities of the focal firm and partners' business models. Complementarities exist when two or more services or products provide more benefit when paired than when separate (Amit and Zott, 2001). Complementary services and products offered were aligned with the focal firm's business model. This alignment of partner offerings, platform-focus and audience demand may act as an antidote to the negative externalities created by excessive advertising on platforms proposed by Casadesus-Masanell and Zhu (2013).

By providing access to market and through augmenting their business models with their partners' business models, the firms in the study were building ecosystems (Moore, 1993; Adner, 2017) linked around their business models. The benefit of doing so is articulated by Chesbrough (2017) who noted how well-designed platforms allow partners to create business models that integrate with the focal firm's and that increase the value of the business.

#### **6.4.1.3. Influence of the Size of Partners**

The size of partners relative to the focal firm was seen in the study to influence the power dynamics of the relationships between the two sides. The smaller of the firms within the network was required to follow the lead of the larger parties in the network. This supports the work of Lindgren et al., (2010) who stated that larger firms within a network usually experienced the least changes in their business models over time, often expecting smaller firms to adjust their business models to suit the dominant firm. This suggests that smaller firms, although potentially benefitting from access to resources, ideas and markets in open networks (Chesbrough, 2007; Lindgren et al., 2010) may be restricted in their ability to innovate their business models in networks dominated by larger partners. For smaller firms, this contradicts the assertion by Sandulli and Chesbrough (2009) that open business models lead to greater agility and adaptiveness.

#### **6.4.2. Value Co-Creation with Partners**

The co-creation of value with partners (Prahalad and Ramaswamy, 2004; Storbacka et al., 2012; Frow et al., 2015) was identified as a prominent theme during the analysis of the participants' interviews. This occurs when partners and customers play an

instrumental role in the value creation of the focal firm through participation in their business model (Storbacka et al., 2012). Co-creating value with customers and partners has been identified as a way of creating lock-in (Prahalad and Ramaswamy, 2004) and therefore as a way of creating competitive advantage with one's business model (Sorescu, 2011). Co-creation also provides a means for managers to increase their level of innovation by introducing new ideas into their business model (Frow et al., 2015).

#### **6.4.2.1. Co-Creating Value Propositions**

The need to create and capture new value has been identified as a driver of firms opening their business models (Frankenberger et al., 2014); this in turn leads to value co-creation (Holm et al., 2013). In order for firms to co-create value, the focal firm needs to allow their partners to participate in specific activities of the focal firm (Storbacka et al., 2012). This occurred in a multitude of ways with the firms in the study, namely through allowing partners to create solutions for customers, through each party offering value propositions to the other's customers and through opening up the business model as a collaborative space for value creation.

Two of the firms in the study highlighted how they involved partners directly in their business models by integrating their services. Rent.ly and Mrkt Plc were both following an outward-in (Chesbrough, 2003) or inbound innovation (Saebi and Foss, 2015) strategy to increase the amount of value they were offering customers. They did this with the knowledge that they would not, by themselves, be able to always build and deliver what their customers wanted. By co-creating value with their partners, the participants in the study not only created additional value from their collaborations, but also allowed their partners to capture some of that value. However, through this process, the focal firm was able to expand the value of the multi-sided platform at little or no cost to the company (Chesbrough, 2007). In a recent paper Chesbrough (2017) argued that well designed platforms led to the activities of contributors adding value to the focal firm's business model. The co-creation of value propositions within the focal firm's business model led a participant in one case to talk about developing the business model as an enabler for others to deliver value. This transformation of a multi-sided platform into a co-creation enabling platform suggests the creation of a radically permeable (Holm et al., 2013) open business model with value co-creation at its centre. As these platforms become sites of shared value creation they begin to transcend the simple definition of a multi-sided platform as a platform that connects two or more sides and become rich spaces that offer various forms of value to customers and partners on all sides of the platform. In this way, the multi-sided platforms become the locus of value creation for

co-evolving ecosystems (Moore, 1993; Adner, 2017) that connect multiple business models together to provide value to both customers and partners. This concept of transforming the multi-sided platform into the locus of value creation within an ecosystem transcends Zott and Amit's (2010) concept that the value appropriated by a firm is dependent on the value created by the firm. In this context, the value appropriated by the focal firm becomes dependent on its ability to facilitate the (co)creation of value within the ecosystem.

#### **6.4.2.2. Leveraging Resources**

Business models are important for defining the availability of resources within an environment (Storbacka et al., 2012) because of their boundary-spanning nature (Zott and Amit, 2010). Access to resources is becoming more important than the ownership of those resources and the value of strong relationships with partners is growing in prominence (Storbacka et al., 2012). Firms may open their business models to external parties when there are gaps in their current design, with essential parts missing (Frankenberger et al., 2014). A number of participants in the study saw that their business model – as a multi-sided platform – could not deliver all the value that customers would want; if they wanted the business to do more than simply bringing two sides together, they would need to use the resources of external partners. Through this process it was necessary to reconfigure the business model to allow for deeper co-creation as has been noted by Storbacka et al. (2012). This deeper value co-creation allowed for the leveraging of external resources within the focal firm's business model.

In terms of partnerships, the community itself can be thought of as a key resource within open business models (Rajala et al., 2012). The community as a key resource was seen as the engine of one of the business models in the study, providing all of the content that drove the platform. Through their generation of content and their promotion of the content, the community members invested their own time and resources to support the business model, thereby increasing the value of the business model at little cost to the owners. This is suggested by Chesbrough (2017) as a marker of a well-designed platform. The value of creating a community around a business has been noted by Ismail et al. (2014) as being vital for creating exponential organisational growth. Similarly, Amit and Zott (2001) noted how the development of a community around a business can lead to customer lock-in and loyalty with the business.

The resources of an external firm could be leveraged through the open business model process of outward licensing of the focal firm's IP (Holm et al., 2013). This occurred in the study when the focal firm created a "white label" version of their multi-sided platform,

which they then licensed to external parties. By utilising their partners to operationalise their business model, this allowed the focal firm to leverage the resources of the licensee and introduced the firm to new markets and segments (Chesbrough, 2007b). However, Teece (2010) argues that without a strong appropriability regime in the form of patents or co-specialised assets, the licensor may be at risk of imitation from the licensee. Patenting a business model may not be possible (Teece, 2010; Sorescu et al., 2011) and by leveraging the assets of a partner when creating the “white label” version of a product or service, the focal firm is likely to become dependent on these assets for creating value (Holm et al., 2013). This is likely to lead to diminished value capture for the focal firm due to the weak appropriability regime for the focal firm (Teece, 1986). However, the firms in the study were still able to capture value in these situations. It is suggested that this was due to their low-cost business models that benefit from economies of scale and indirect network effects. Therefore, the increased volume of transactions that these white-labelled platforms created, when coupled with the right revenue model, allowed the focal firm to capture a sustainable amount of value.

#### **6.4.3. The Nature of Relationships with Partners**

The value of trust between partners within a value network was highlighted by a number of the participants in the study. The trust between the partners helped to build stronger relationships, which in turn helped partners go into new business ventures or markets together. Trust has been identified as a key attribute for building strong networks between partners within a value network (Berglund and Sandström, 2013). Similarly, it is suggested that firms were more likely to integrate the resources of partners that they trusted within their value network (Sandulli and Chesbrough, 2009). Trust within the value network is therefore another intangible resource that needs to be considered alongside the credibility that the firms within the value network can offer each other. Although trust between partners may take time to create, it is clearly a resource that is valuable, as it facilitates resource sharing, as well as inimitable and non-substitutable (Barney, 1991) and therefore can aid in conferring competitive advantage to a firm within its network.

The depth of relationships with partners within the network was seen to be a function of how important that partner was to the core of the focal firm’s business model. The decision over how deep to partner with a supplier was based on how core the resource provided by the partner was to the focal firm’s business model. If the partner was providing something core to the business, they partnered; if it was non-core, they licensed. This insight helps managers to understand the depth of relationships that need



to be fostered in order to facilitate the functioning of their business model. This suggests that when managers are designing new business models, that resources should either be created in-house or jointly owned (Berglund and Sandström, 2013) when they are core to the functioning of the business model.

Although Sandulli and Chesbrough (2009) suggested that firms generally either have deep or broad relationships, a number of the firms in the study were attempting to create both simultaneously. This was done when partners or customers played an active role in promoting the platform to others. In these cases, the founders tried to leverage what could best be described as 'communities' of partners to grow their businesses. Frankenberger et al. (2013) suggested that through the creation of shared values between the partners in the value network, firms can better manage the network around their firms, regardless of the depth of these relationships. The creation of a community around a business is therefore seen as a method for creating both strong and broad relationships in the value network.

#### **6.4.4. Summary of the Discussion for Research Question Three**

Research question three identified the role of partners in the process of multi-sided platform business model design and innovation. Partners – including customers – were seen to play an instrumental role in guiding the innovation of the business model, supporting the work of numerous authors (Saebi and Foss, 2015; Rumble and Mangematin, 2015). This suggested that actively involving customers and suppliers in the business model innovation process could lead to positive outcomes.

The firms and their partners connected through giving each other access to markets. This was facilitated through promotion of the focal firm by partners and through the credibility provided by partners to the focal firm. This supports the value of intangible resources – such as reputation – as key resources that can facilitate competitive advantage (Wernerfelt, 1984; Barney, 1991). When providing access to market for partners, the focal firms in the study ensured alignment between their offerings and that of their partners. This helped to ensure that there were complementarities between the value created by both parties, increasing total value for customers using the platform. However, as firms integrated with each other, the power dynamics between them became apparent. Large firms held sway over smaller firms, as suggested by Lindgren et al. (2010), and over-reliance on large partners would likely limit the smaller firm's ability to innovate its business model.

Firms in the study engaged in co-creating value through their business models (Storbacka et al., 2012). Through the process of co-creating this value, the firms in the study were building co-evolving ecosystems (Moore, 1993; Adner, 2017) that allowed the focal firm to deliver greater value to customers. The firms were also able to leverage the resources of their partners through the co-creation process. Leveraging of partners' resources raised the challenge of the creation of potentially weak appropriability regimes (Teece, 1986), however the research suggested that multi-sided platforms were still able to capture value in this context.

Finally, the depth of relationships between partners in the network was discussed. The research extended the literature on this dimension by suggesting that firms could create relationships with communities around their business models that are both deep and wide.

## **6.5. Discussion of Research Question 4**

*What strategies do multi-sided platform owner-managers use to create competitive advantage through business model design and innovation?*

Research question four identified how entrepreneurs used business model design and innovation to create competitive advantage. As noted in chapter one, multi-sided platforms were chosen as the sample for this study particularly because the open nature of their business models requires them to rely on the 'ordinary resources' (Fréry et al., 2015) of their partners to operationalise their business models. However, the RBV proposes that resources must be unique, valuable, non-substitutable and rare – i.e. non-ordinary - if they are to confer competitive advantage (Barney, 1991). Similarly, there should be isolating mechanisms that impair imitation (Rumelt, 1984) and difficulty in transferring these resources across firms (Grant, 1991). However, if multi-sided platform business models leverage easily available external resources that are transferable from partners, it should be difficult for these business models to create competitive advantage.

If the ordinary resources (Fréry et al., 2015) used in multi-sided platforms are unable to create competitive advantage, then these firms' business models themselves may be instrumental in creating their competitive advantage. This study therefore aimed to understand how owner-managers of multi-sided platforms used business model design and innovation to provide the foundation for competitive advantage.

### **6.5.1. Differentiating the Business Model**

The proposition that business model innovation and innovative business model designs can confer competitive advantage is one of the most prominent messages in the business model innovation literature (Voelpel et al., 2004; Teece, 2010; Chesbrough, 2010; Taran et al., 2015; Casadesus-Masanell and Zhu, 2013). This proposition was supported clearly by the cases of the two most successful firms in the study, Property Direct and Bed Net, who managed to create successful companies through innovating their business models *vis-à-vis* competitors. These firms offered similar services to competitors, but differentiated using their business models. This study therefore supported Chesbrough's (2010) assertion that different products or services commercialised through different business models are likely to lead to different outcomes.

Although the benefit of creating novelty-centred business models that connect new parties in new ways was identified by Zott and Amit (2008), the means of creating this novelty is not adequately described in the literature. This paper proceeds to show the ways that the firms in this study introduced novelty into their business models.

#### **6.5.1.1. Creating New Value Propositions**

This study showed that firms can try to create competitive advantage by differentiating themselves from competitors through adding value to customers that no competitors are offering. This is done through the creation of value propositions that are new to the market in which the firms operated. These value propositions connected new resources and partners or customers together through the multi-sided platforms in the study. This led to the creation of novelty-centred business models which have been shown to lead to superior firm performance (Amit and Zott, 2008). By offering new value propositions to customers, firms were able to build new markets where markets had not existed before. When pursued as the foundation of the competitive advantage strategy of the firm, the creation of these new value propositions informed the design of the rest of the elements of the firm's business model, such as the revenue model, partners and resources of the business model. This supports the research of Cortimiglia et al. (2016) that suggested that the business model must be looked at as system of interrelated parts. Value proposition differentiation as a strategy is, however, unlikely to yield long-term competitive advantage on its own unless it is coupled with another strategy or resource that limits imitation (Teece, 2010).

#### **6.5.1.2. Targeting New Customer Segments**

In a number of cases in this study, the participants created business models to service customer segments that were not currently served by the market. These innovative, novelty-centred (Amit and Zott, 2001) business models connected new customers and partners through the business model of the focal firm. This provided a competitive advantage to the firm because their competitors were not able to service these customer segments with their business models, either due to the rigidity of their revenue models or lack of their ability to alter other components of their business models to serve these customers. In essence, these participants were creating disruptive business models (Christensen, 1997) that transcended the dominant logic of the business models (Chesbrough, 2010) of their competitors. The benefits of using business model innovation to serve underserved segments of the market has been noted by a number of authors in the field (Christensen, 1997; Johnson et al., 2008; Chesbrough, 2010). Similarly, the benefits of using business model innovation to create business models that competitors were then unable to copy has been noted by a number of authors as one of the major benefits of business model innovation as a tool for competitive advantage (Teece, 2010; Markides and Sosa, 2013). This created a degree of inimitability for the firms in the study where they were not concerned about needing to defend against incumbents when they were targeting new customer segments.

Although this strategy creates defensive barriers and isolating mechanisms (Rumelt, 1984) against incumbents who would have to change multiple parts of their business model – or even their entire dominant logic (Chesbrough, 2010) – to copy the focal firm, this strategy may not be effective at preventing new entrants from entering the market with similar business models. Therefore, similarly to using unique value propositions to create competitive advantage, this strategy is likely to require coupling with other strategies to create long-term competitive advantage.

#### **6.5.1.3. First Mover Advantages**

First mover advantages (FMAs) were seen as providing a temporary advantage to a six of the firms in the study. These FMAs were created through the acquisition of resources, or certain co-specialised assets (Teece, 1986), such as data or networks in the form of databases. However, although these co-specialised assets were being exploited through business models that were new to the South Africa market, the participants in the study saw these as creating temporary advantages for them. The firms had a head start in what was arguably a weak appropriability regime (Teece, 1986; Desyllas and Sako, 2013).

In the cases where the participants had copied the business models of international firms and brought those to South Africa, they saw the geographical separation between the markets as providing them with a FMA. They were able to grow their business in a less competitive environment, potentially gauging the time it would take before competitors entered their market. The firms in the study tried to leverage FMAs with their business models by building network effects – i.e. building their customer base as quickly as possible – and through securing key partnerships and building strong relationships with those partners. This supports Markides and Sosa (2013) who suggested that a good business model supports a FMA by building market share quickly and through creating alliances with key suppliers. However, it should also be noted that being the first to enter the market often led to challenges with customer education and adoption as was described in section 6.3.1. Although the existence of other platforms is diminishing this challenge as multi-sided platforms proliferate, the firms in the study were affected by the need to educate customers on the benefits of using their platform. Therefore, whilst being a first mover in a new market may provide benefits and the space to grow, it also comes with challenges, including educating customers and ensuring that the right partners exist in the ecosystem to support the business model.

#### **6.5.1.4. Differentiating With A Unique Revenue Model**

A firm's revenue model can be used to differentiate the firm from incumbents. The choice of a revenue model as a "simple proposition" (founder Bed Net) was suggested as an effective way of creating competitive advantage in the market. The utilisation of an innovative revenue model to create competitive advantage has been identified by Desyllas and Sako (2013). However, the manner in which an innovative revenue model and pricing strategy can lead to competitive advantage has not been studied in the literature. Simply differentiating with a new revenue model is not enough to capture new customers; the revenue model has to be able to add value to all parties interacting with the focal firm's business model. This can happen when the revenue model reduces direct costs to customers or when it reduces transaction costs for customers (Amit and Zott, 2001).

The choice of the simple revenue model cascaded to other parts of the business model, allowing for a simpler resource structure that allowed the business model to pass extra value onto customers. This in turn created co-specialised components of the business model (Teece, 2010) that led to the overall business model conferring competitive advantage on the focal firm. These co-specialised business model components, built around the revenue model, create barriers to imitation for competitors who would need

to copy all of the elements of the business model in order to gain the benefits that the focal firm has from their revenue model (Johnson et al., 2008; Teece, 2010; Sorescu et al., 2011). Furthermore, as a revenue model often underlies the dominant logic (Chesbrough, 2010) of a firm, it is challenging for incumbents to copy a new entrant's innovative revenue model. Therefore, even though each part of the business model is interdependent (Markides and Sosa, 2013; Dmitriev et al., 2014; Zott and Amit, 2010), starting by considering a different revenue model and cost structure presents a fertile area to create disruptive business models that confer competitive advantage.

#### **6.5.1.5. Focus**

Focus was found to be both a business model design differentiator and a business model innovation strategy. It refers to limiting the breadth of value propositions and services delivered through the business model and the number of partners used to deliver them. It involves a firm staying with its original logic of value creation and capture, albeit with the allowance for incremental innovation of the business model. Focus aimed to limit business model drift (Demil and Lecocq, 2010) and ensure that the focal firm was able to deliver value targeted specifically for their customers. It provided competitive advantage because competitors with less focused value offerings were unable to offer the same amount of value to customers and partners due to limitations placed on them through other elements of their business models, such as the dominant logic (Chesbrough, 2010) of their revenue model or partner relationships. Although Johnson et al. (2008) suggested that a value proposition should focus on getting one customer 'job' done properly, even the focused business models in the study offered multiple value propositions within their business models. However, these value propositions were complements (Amit and Zott, 2001) to each other, each working together to create more value for customers. For clarity, complements occur when having two things together provide more benefit when paired than when separate (Amit and Zott, 2001).

The strategy of focusing the business model with a set of interlocked, complementary value propositions is not covered in the business model literature. Although Amit and Zott (2001) have noted complementarities as a theme in business model design, the way this can be applied to the value proposition to create competitive advantage has not been explored. Similarly, although Cennamo and Santalo (2013) have noted the benefits of differentiation as it relates to platform businesses, they have not spoken specifically about how firms can achieve this. Focusing the business model may lead the firm to develop a streamlined business model that can offer benefits to customers that less focused business models cannot, such as lower costs or better customer service. In the

case of multi-sided platforms, where the temptation may exist to bring as many customers on board so as to benefit from network effects (Rochet and Tirole, 2003; Cennamo and Santalo, 2013; Hagi, 2014), focus may seem counterintuitive. In light of this contradiction, focus as a business model design and innovation strategy may therefore provide a fertile ground for building competitive advantage.

## **6.5.2. Constant Innovation**

Constantly innovating the business model of a firm has been identified as a method for ensuring sustained value creation (Achtenhagen et al., 2013). In this study constant innovation led the firm to adapt and renew its business model to meet changing customer needs. The firms in the study used constant innovation as a tool for creating lock-in (Amit and Zott, 2001) with partners and customers and as a tool for creating totally new business models within their business models.

### **6.5.2.1. Creating Lock-In Through Constant Innovation**

The firms in the study employed a strategy to create lock-in through incremental innovations to their business models where they added additional value to customers and partners. This was done in line with the core logic of value creation and capture of the firm and hence was part of a focused innovation strategy. The process of creating lock-in with customers and partners is similar to that proposed by Amit and Zott (2001), however their understanding is based on a static understanding of how firms keep customers engaged with their businesses through creating trust, loyalty programmes, dominant designs and familiarity with the interface. This study showed that firms tried to create lock-in through a process of constantly creating new value for customers. This value in turn was proposed as a means to create dependence for customers with the focal firm. This supports the assertion by Achtenhagen et al. (2013) that a constantly evolving business model can create sustained value for customers and partners, however this research builds on their assertion by suggesting that this can lead to lock-in and competitive advantage. This is supported by Desyllas and Sako (2013) who identified the constant creation of new value within a business model as tool for preventing the core offering of the business model from becoming a commodity.

This extends the current business model literature by suggesting a specific focus for incremental business model innovation. Firms should seek to build additional value propositions within their business models that complement their current value propositions, creating systems of rich value that gradually lock customers into the focal firm's business ecosystem by creating 'dependency' on the focal firm.

### 6.5.2.2. Creating Spinoffs

The creation of spinoff businesses – or ‘businesses within businesses’ – was proposed as a competitive advantage strategy by two of the participants in the study. Although these businesses were kept inside the focal firm due to the small size of the firms in the study, they had the potential to be spun off as separate entities at a later stage. These spinoff business models were developed as complementarities to the main business models of the focal firms and helped to create new value for new customer segments. In both cases, these spinoffs were radical business model innovations that were precipitated by interactions with customers and partners.

Based on the concept of complementarities providing more benefit when paired than when separate (Amit and Zott, 2001), complementary business models can create competitive advantage by increasing the value created and captured when co-occurring within a single firm. This is, however, a more radical process than the creation of complementary value propositions that comprise the ‘focus strategy’ in section 6.5.1.5 above.

The creation of potential spinoff business models occurred when firms found new ways to leverage current resources through new logics of value creation and capture. These were developed alongside the primary business of the firms, but targeted different customers, with new value propositions and captured value through new revenue models. This strategy allowed the firms to “feed” their primary business model and also offered agility; should one of the business models fail, the firm could still continue.

This strategy contradicts the assertion in the literature that firms cannot run more than one business model concurrently due to conflicts between the logic of the different business models (Christensen, 1997; Chesbrough, 2010). The literature also suggests that business models that differ radically from the primary business model of a firm may need to be put into external businesses to succeed (Christensen, 1997; Chesbrough, 2007), however as the businesses in study were small, it was possible for these business models to exist alongside the primary business model. This may be due to the dominant logic of the firm (Chesbrough, 2010) not having been entrenched yet. Although this business model innovation strategy was emergent, coming to light as the firms in the study grew, if it was to be planned from the early stages of a business it may provide a firm with an agility that could create competitive advantage against less agile firms.



### 6.5.3. Network Effects

The creation of network effects has been identified in the literature as the primary competitive advantage associated with multi-sided platform businesses (Rochet and Tirole, 2003; King, 2013; Hagiu and Wright, 2015). This was supported in the research with 12 of the 13 firms in the study supporting the primacy of network effects for creating competitive advantage with their business models. The network was seen as a key resource which gave the focal firm an advantage over competitors because of the difficulty that competitors would have to go through to acquire that base. In this way, the network could be seen as a key resource (Wernerfelt, 1984), or a co-specialised asset (Teece, 1986) that created barriers to imitation by competitors. This is supported by the findings of Desyllas and Sako (2013) who noted how the creation of a large database of users – and the accompanying user data collected - could act as a barrier to imitation, or an isolating mechanism (Rumelt, 1984) preventing competitors from successfully copying the focal firm’s business model.

Simply getting the most customers onto the platform was, however, not considered by any of the participants in the study as the sole means for creating competitive advantage. In all the cases of participants creating network effects, this was coupled with another business model design or innovation strategy for creating competitive advantage. Although the creation of network effects was seen as a necessary condition for creating competitive advantage, it was not sufficient to sustain it. It was necessary to continue adding value to create competitive advantage, which supports Achtenhagen et al.’s (2013) proposition that firms need to constantly evolve their business models in order to create sustained value.

The creation of network effects combined with a strategy of “white-labelling” the platform for outwards licensing (Chesbrough, 2007) to external partners was suggested as a way to significantly increase the number of users on the platform. This allowed the firms in the study to leverage the resources of their partners – such as their networks and sales people - to grow their businesses and to provide more value for all parties using the platform. “White-labelling” as a strategy allows firms to grow their customer base and benefits from gaining greater access to resources and markets. This supports Lindgren et al. (2010) who suggested that the benefits of open business models include access to external resources and distribution channels. However, because the owners of white-labelled services or products would not hold the co-specialised assets (Teece, 1986) required for their effective operation, they may struggle to capture a significant portion of the value they create or may be susceptible to imitation. It is therefore proposed that

this strategy in particular would need to be accompanied by a strategy that creates lock-in for customers through constant value proposition innovation in order to enhance the value created and potentially captured.

#### **6.5.4. Relationships and Competitive Advantage**

Building strong relationships with customers, creating customer engagement and locking out competitors through creating exclusive partnerships emerged as three competitive advantage strategies that were built on customer and partner relationships. This is supported by Rajala et al. (2012) who identified the importance of relationships between partners as one of the key ingredients of open business models.

##### **6.5.4.1. Customer Relationships**

The development of strong customer service emerged as a strategy for creating competitive advantage in the analysis of the results. As noted in 5.6.4.1, this insight suggested that the firms in the study did more than simply connecting two sides through the multi-sided platform as they worked to enhance the value offered to all sides through good customer service. This speaks to the importance of customer-centricity when designing business models (Teece, 2010). In their discussion of the creation of co-specialised assets (Teece, 1986) and Desyllas and Sako (2013) suggested that after sales customer service can be a co-specialised asset that defends against competitors. This was confirmed by this study through the importance placed on customer service as means of creating competitive advantage.

##### **6.5.4.2. Customer Engagement**

Customer engagement – or the act of getting customers to utilise the multi-sided platforms in the study – was suggested as an important method for leveraging network effects. Value was unlocked for customers when they engaged with the platform which infers that the platform is a site for value co-creation (Prahalad and Ramaswamy, 2004; Storbacka et al., 2012; Frow et al., 2015). This extends the above discussion regarding network effects to suggest that the presence of a network lays the foundation for creating value, however, the value must be co-created between the platform and the customers and partners in order for value to be realised. Therefore, this strategy of value creation is built around increasing customer interaction with the platform to increase the value co-created on the platform.

##### **6.5.4.3. Exclusivity of Partnerships**

The exclusivity of partnerships was noted by a number of the participants in the study as a method for creating competitive advantage. This concurs with the RBV literature that suggests that distribution channels can be rare resources that confer competitive advantage (Wernerfeld, 1984; Desyllas and Sako, 2013). Similarly, Dmitriev et al. (2014) showed how the creation of exclusive partnerships could create isolating mechanisms that could stave off business model imitation by competitors. However, a number of firms in the study had to create two-way exclusive partnerships, whereby their partners were also offered exclusivity to part of their offering. Through an outward licensing strategy (Chesbrough, 2007) the firms were able to use this exclusivity to their advantage where they could still use the technology or service they had developed when the license had expired.

#### **6.5.5. Summary of the Discussion for Research Question Four**

Research question four identified the business model design and innovation strategies that the participants in the study used to create competitive advantage. The RBV theory (Wernerfelt, 1984; Barney, 1991) was useful in explaining strategies for creating competitive advantage in a few cases, such as through the creation of key partnerships and through the creation of a network. Similarly, the RBV was useful at identifying credibility and trust as valuable intangible resources that aided multi-sided platforms in section 6.4. However, it could not adequately explain the strategies of differentiation and constant innovation. In all of the cases in the study, the firms utilised multiple strategies for creating competitive advantage, suggesting that business model design and innovation may comprise complicated and interwoven processes in order to create competitive advantage. Similarly, the strategies utilised were not homogenous, with firms utilising different methods of differentiation and opposing methods of innovation. However, a single method is unlikely to work for all firms, especially considering the situational design of business models (Teece, 2010).

It was suggested that if the parts of the business model provide complementarities to each other, they create a configurational fit that is greater than the sum of the parts (Storbacka et al., 2012). Although different differentiation strategies were used by the firms in the study, it cannot truthfully be said that a firm differentiates itself through a single unique business model element. As the parts of the business model are interdependent (Johnson et al., 2008; Sorescu et al., 2011; Markides and Sosa, 2013; Frankenberger et al., 2013; Landua et al., 2016), any unique business model component would influence all the other parts of the business model. However, one could look at a

'locus of differentiation' and use that as a tool for beginning the design of the business model.

A number of firms in the study chose innovation strategies on two ends of a spectrum that either 'focused' their business models or led to the creation of 'businesses within businesses'. In the former case, the firms sought to create customer dependence on the platform with rich, complementary value propositions and services. In the latter case, the firms developed multiple, complementary business models. This contradicts the literature that states that firms can only operate with one business model at a time (Christensen, 1997; Chesbrough, 2010).

The primacy of network effects to multi-sided platforms – as a necessary but not sufficient condition for competitive advantage – was noted. However, the need to couple this strategy with additional strategies for creating and evolving value through the business model also emerged in the study. This in turn was supported by a number of participants alluding to the value co-created by customers (Prahalad and Ramaswamy, 2004; Storbacka et al., 2012; Frow et al., 2015) when they were engaged on the platform. The strategy of building and maintaining strong relationships with customers and partners to create competitive advantage also emerged from the study. This augments the strategy of building network effects, suggesting that the network must be maintained and nourished in order for it to create value and for the firm to capture a portion of the value created.

## **6.6. Conclusion**

This chapter has presented a discussion of the results of this study. It was shown that the multi-sided platforms in the study were all developed through a market pull paradigm. The identification of the opportunities to create these novelty-centred business models (Amit and Zott, 2001) were influenced by the cognitive maps of the firms' founders, identified through an existing business model or, in one case, suggested by a partner. This extends the literature through an empirical examination of the initial design of multi-sided platforms.

A number of challenges around developing multi-sided platforms in South Africa were discovered relating to customer education and adoption and problems with integrating with partners. This extended the literature by suggesting that it may be easier to transfer familiar business models to new products than new business models to familiar products. However, it is not suggested that these challenges are unique to the South African or developing economy contexts. Customer education and adoption challenges were in

part remedied through the growing proliferation of multi-sided platforms that habituate customers to their use. The challenges of integrating with partners coupled with the enabling effect of other platforms on the focal firm's business model highlighted the importance of the business ecosystem (Moore, 1993; Adner, 2017) as an influence on the design of the focal firm's business model. The identification of these challenges and enablers extended the literature on the situational (Teece, 2010) or environmental factors that affect the ease with which a business model can be transferred from one setting to another.

The discussion proceeded with an analysis of the manner in which partners influence the design of the focal firm. The insights derived were supported by the literature that suggested that partners could – and should - play a role in influencing the design of the focal firm's business model (Chesbrough, 2007; Lingren et al., 2010; Sorescu et al., 2011; Ghezzi et al., 2016). Value co-creation as a central element of the business model (Storbacka et al., 2012; Frow et al., 2015) emerged as an important facet of multi-sided platforms. Moreover, the act of value co-creation highlighted the existence of the business ecosystems (Moore, 1993; Adner, 2017) that can be created around multi-sided platforms. This in turn led to the discussion of engineering the multi-sided platform to act as locus of value creation within an ecosystem. The importance of the resources of partners to the focal firm's business model was also highlighted in this discussion on ecosystems.

This was followed with a discussion of the strategies that the participants in the study used to create competitive advantage with their business models. It emerged broadly that the participants tried to differentiate their business models through one unique component; however, this unique component had cascading effects on the other components of the business model. This augmented the literature (Amit and Zott, 2001; Zott and Amit, 2008) that suggested that novelty-centred business models could increase performance by presenting strategies that were utilised to create novelty-centred business models. Constant innovation was also seen as a tool for creating competitive advantage, realised in this study through two contrasting strategies – 'focus' and the creation of potential 'businesses within businesses'. In the latter case, this contradicts the literature that has stated that firms can only operate through one business model at a time (Christensen, 1997; Chesbrough, 2010). The primacy of network effects for multi-sided platforms (Rochet and Tirole, 2003; King, 2013; Hagiu, 2014) was confirmed, however it was also noted that network effects alone would not create competitive advantage; it was necessary for the business model to create real value to lock in customers and partners. Finally, the value of relationships with customers and

partners was identified. This value was realised by creating a strong customer service capability, engaging customers on the platform and creating exclusive partnerships as tools to create competitive advantage.

The following chapter presents the conclusions to this research paper.

## **7. Chapter 7 – Conclusion and recommendations**

### **7.1. Introduction**

This study set out to explore the business model design and innovation strategies that firms use to create competitive advantage. The study did this in the context of the network of partners in which multi-sided platforms operate. As put forward in chapter one, although competitive advantage is suggested as the outcome of designing innovative business models (Teece, 2010; Voelpel et al., 2004; Zott and Amit, 2008; Markides and Sosa, 2013; Cortimiglia et al., 2016), the manner in which innovative business models are designed to confer competitive advantage lacks empirical grounding in the literature. Similarly, the manner in which multi-sided platforms are able to create competitive advantage through leveraging the ordinary resources of partners (Fréry et al., 2015) was presented as a paradox, contradicting the RBV literature. The study therefore examined how multi-sided platforms sought to create competitive advantage through business model design and innovation. Because of their reliance on the ordinary resources of partners (Fréry et al., 2015) the study examined the role of partners in the business model design and innovation of the multi-sided platforms in the study.

This chapter presents the conclusions to this research paper through summarizing the research findings, presenting their implications for theory and business, highlighting limitations in this research and then suggesting areas for future research.

### **7.2. Research Findings**

This exploratory research has successfully answered the research problem set out in chapter one, namely to understand the strategies used by multi-sided platform founders to create competitive advantage with business model design. The key findings of this study can be summarised into three areas. Firstly, the challenges of creating multi-sided platform business models in South Africa suggested that business models may be transferable (Teece, 2010; Baden-Fuller and Morgan, 2010), however their transferability is dependent on a number of environmental factors. Secondly, partners play a key role in the design of multi-sided platform business models; furthermore, these firms co-create value with their partners. Finally, it was discovered that the firms in the study used four broad strategies to create competitive advantage through business model design and innovation.

### **7.2.1. Business Model Transferability**

The need to educate customers on the value that could be delivered by new business models acted as a barrier to transferring multi-sided platform business models into new contexts. This suggested that it may be easier to transfer familiar business models onto new products than to create or transfer radically new business models to familiar products. Similarly, in the case of business models that served B2B firms, the dominant logic of customers (Chesbrough, 2010) could limit their willingness to work with firms utilising these new business models. This adds to the literature by identifying customer adoption as a challenge when implementing new business models.

The absence of partners within a business ecosystem (Moore, 1993; Adner, 2017) and the challenges of integrating with key partners' business models also limited the transferability of business models from one setting or market to another. However, other multi-sided platforms were seen as having an enabling effect on the business models of the firms in the study. These platforms educated customers on the value of using multi-sided platforms as a means of transacting and habituated customers to their use.

The business model is seen as a boundary spanning concept (Zott and Amit, 2010) that explains value creation and capture within an ecosystem (Gassmann et al., 2013; Frankenberger et al., 2014). This study has supported this and discovered ecosystemic challenges to business model transfer. It has also discovered that the existence of extant platforms acts as an ecosystemic enabler to the creation of multi-sided platforms. Overall, these results suggest that firms should seek to grow the ecosystems in which they operate as the co-existence of other complementary platforms can increase customer adoption of these platforms. Furthermore, managers should conduct an ecosystem evaluation before transferring a business model into a new context in order to infer what challenges may limit its adoption.

### **7.2.2. Partners and Ecosystems**

The design of open business models can be influenced by customers and partners (Rumble and Mangematin, 2015). The findings of the study supported this and showed that customers and partners played an instrumental role in the design and co-creation of value through the business models of multi-sided platforms. In a number of cases, customers were thought of as partners to the firms in the study. Partners and customers provided the multi-sided platforms with ideas for creating new value propositions and improving their revenue models, benefitting both the firms and their customers. This suggests that a customer-centric business model (Teece, 2010) requires the focal firm



to allow the customer to influence its design. Partners also provided the firms in the study with access to market, in part facilitated through giving these firms credibility. This added to the literature by suggesting that intangible resources, such as credibility, may be an important part of the value exchange between partners in open value networks. Furthermore, providing and gaining access to market also emerged as an important value exchange between partners in multi-sided platform ecosystems.

Value co-creation (Prahalad and Ramaswamy, 2004) with partners through the business model (Storbacka et al., 2012; Frow et al., 2015) emerged as a central concept in understanding the involvement of partners in the design of the business models of the firms in the study. This supports Storbacka et al. (2012) who asserted that the business model can explain how value is co-created. Furthermore, this value co-creation transformed the multi-sided platforms into ecosystems of value co-creation. By co-creating value with partners through the multi-sided platforms, the firms sought to create greater value for customers and secure competitive advantage for themselves. As more partners built their businesses within the focal firm's business model, it was suggested that this would create isolating mechanisms (Rumelt, 1984) that would prevent competitors from copying the firm. This occurs when a firm allows partners to integrate into their platform by offering complementary services to at least one side of the market. In the case of a property rental platform, this may occur if the platform allowed fibre, maintenance and security firms to deliver services integrated through their platform. In this way, the focal platform becomes the locus of value creation in a rental ecosystem. This adds to the literature by uncovering how a multi-sided platform's business model can become a locus of value creation within an ecosystem through value co-creation activities.

### **7.2.3. Business Model Design Strategies for Competitive Advantage**

The firms in the study began by designing their business models to solve a problem or fulfil a market opportunity. This opportunity was identified through the founder's cognitive maps, based on an existing business model, or in one case, identified by a partner. Once this opportunity had been identified the firms in the study utilised four different business model design and innovation strategies to create competitive advantage. None of these strategies were utilised in isolation, suggesting that competitive advantage through business model design requires a multifaceted approach. With a lack of empirical studies on how business model design can confer competitive advantage, this study has added

to the literature by empirically identifying business model design strategies utilised to create competitive advantage.

Firstly, firms chose to differentiate their business model through one component as a strategy for creating competitive advantage. Where competitors were unable to copy this business model design element due to their dominant logic (Chesbrough, 2010), the firms were able to use this as an isolating mechanism (Rumelt, 1984) to create competitive advantage. However, as the business model components are interdependent (Cortimiglia et al., 2016) and one component affects the design of others, this strategy suggests that firms chose a 'locus of differentiation' and then designed their business models around this.

Constantly innovating the business model has been identified as an effective process for creating new value for customers (Achtenhagen et al., 2013) and preventing the commoditization of a firm's offering (Desyllas and Sako, 2013). In the study, firms chose between two business model innovation strategies. On the one end of the spectrum, the firms chose to lock in customers through creating rich complementary value propositions. This was done through a 'focus' strategy, where the customer segments remained the same, but the value propositions were innovated incrementally with the addition of new complementary services. Firms used this deep focus to try to create customer "dependence" on their businesses. This was contrasted with the strategy of creating 'businesses within businesses' that afforded firms agility in their business model designs by creating potential spinoff businesses. These potential spinoff businesses were complementary to the primary business model of the focal firm, thereby increasing the value of the primary value proposition.

Thirdly, firms noted the primacy of creating network effects to create competitive advantage with multi-sided platforms. This supported the existing literature (Rochet and Tirole, 2003; Hagui, 2014), however network effects were seen as necessary but not sufficient for creating competitive advantage. Network effects had to be combined with other business model design strategies, such as "white-labelling" or outward licensing (Chesbrough, 2007) in order to confer competitive advantage.

Finally, firms saw their customer management capabilities and relationships with customers and partners as central resources for creating competitive advantage with their business models. This suggests that these capabilities may be co-specialised assets (Teece, 1986) required to operationalise a successful multi-sided platform. These relationships and the ability to manage them are suggested as the isolating mechanisms (Rumelt, 1984) that lock customers in to the focal firm and lock competitors out of

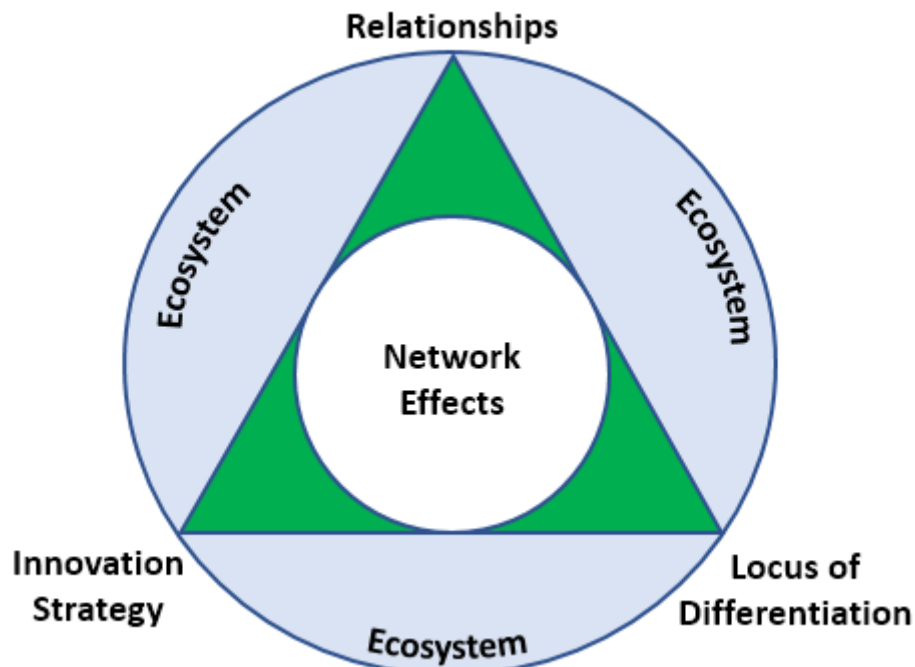
working with key partners. With these key partnerships cut off from competitors, this creates a degree of inimitability for the business model. Furthermore, the act of engaging with customers was identified as vital to stimulating the co-creation of value on the multi-sided platforms in the study.

### 7.3. A Proposed Framework

This section presents a proposed model for creating competitive advantage through business model design and innovation based on the insights derived from this study.

Although the small sample size and explorative nature of qualitative research limits the generalizability of the results obtained from the data analysis (Bloomberg and Volpe, 2012; Taran et al., 2015), the goal of qualitative research should be transferability – i.e. an attempt to understand how the knowledge can be applied in similar contexts and settings (Bloomberg and Volpe, 2012). Based on a deeper understanding of the influence of partners on business model design and innovation, coupled with an analysis of strategies for creating competitive advantage through a firm’s business model, this model presents a framework for developing multi-sided platform business models that will confer competitive advantage.

*Figure 12: The Competitive Advantage Canvas*



The Competitive Advantage Canvas above encapsulates the key insights derived from this study. At the centre of the canvas lies network effects, seen as necessary, but not sufficient for creating competitive advantage with multi-sided platforms. The framework

suggests that this is central to the success of multi-sided platforms, however as it only comprises part of the strategy, it must be incorporated with the rest of the elements in the framework.

Moving outwards, the model shows the three additional business model design levers that can be utilised to create competitive advantage. The 'locus of differentiation' suggests that when designing business models, firms should select one component of their business model to serve as the 'locus of differentiation'. This will influence the design of the rest of the business model and will aid in differentiating the firm from competitors.

The firm should then consider its business model innovation strategy going forward. This can be done by either choosing to focus the business model with closely related complementary value propositions and services to create customer dependence, or by allowing for the development of potential complementary 'businesses within businesses' that allow agility. The complementarities between the focused value propositions or the 'businesses within businesses' should be central to this strategy.

Finally, the firm should develop a relationship management competency with partners and customers. This can be used to lock competitors out of key partnerships or to drive co-creation and loyalty with customers and partners.

The outer ring of the model locates all of this activity within the business ecosystems in which the focal firm operates. It suggests that the business model designer should consider both the enabling factors, such as the availability of other platforms and the potential for co-creation with partners as well as the limiting factors, such as the need to educate customers when designing the business model.

This framework was exemplified through the strategy employed by Bed Net. Bed Net saw the value in building network effects as the company was starting and acknowledged that it would add defensibility to their business. They then chose a unique revenue model to act as the 'locus of differentiation' for their business model. As they innovated their business model, they followed a strict strategy of focus, building a deeper set of value propositions with customers through complementary services. Bed Net locked customers in with this deep value coupled with building strong relationships through an excellent customer service capability. Finally, the founders paid particular attention to their ecosystem, leveraging the growing trend of internet bookings as a driver of adoption for their business model. Moreover, they played a key role in connecting

guest houses with other booking platforms which served as a key enabler of their business model.

Although this framework is specific for multi-sided platforms due to the centrality of network effects to its design, it is suggested that this central element could be replaced with an element that is 'necessary but not sufficient' in other business model designs. In the case of a high-tech firm, this could be a few key pieces of IP, or for a manufacturing firm, this may be key manufacturing equipment.

## 7.4. Implications for Business

This research has highlighted practical ways for managers to conceptualize the design and innovation of their business models to create competitive advantage. Along with the proposed Competitive Advantage Canvas above, the research also provides a number of additional insights for business practitioners:

- The study identified that the cognitive maps of managers have a noteworthy influence on the business models they are able to conceive of. Therefore, managers should expand their cognitive maps through new and varied experiences in order to conceive of new ways to unlock value for customers with novel multi-sided platforms.
- There may be limitations on the transferability of business models across markets, however transferring familiar business models to new products may allow firms to capture new value without having to educate their customers about the value of the business model.
- Partnerships are key for building strong multi-sided platforms. Co-creation with partners allows for the transformation of the platform into an ecosystem which creates greater value for customers. Managers of multi-sided platforms should focus on the creation and development of platform ecosystems that act as a locus of value creation within an ecosystem.
- For platforms to be truly customer-centric, they should allow customers and partners the space to influence the design of their business models. Managers therefore need to develop the capability that allows the firm to incorporate business model design ideas from customers.
- Managers need to analyze the full ecosystem before designing their business models. This will aid in understanding if customers are ready for the business model, if partners are there to support it, and which area of the business model should be chosen as the 'locus of differentiation'.

- Relationships with customers are one of the key elements to the success of multi-sided platforms. Although these platforms may connect two or more sides, the business at the centre needs to build relationships with the parties on each of the sides in order to create lock-in. Furthermore, managers need to engage the sides to facilitate value co-creation on the platform.

## 7.5. Limitations

This study was exploratory in nature and therefore the generalizability of the results to other contexts are limited. Furthermore, the limitations of the study comprised:

- The small sample size limits the generalizability of the results to other contexts.
- The subjective nature of qualitative research suggests that the research may be affected by the biases of the researcher.
- The focus on multi-sided platforms limits the transferability of the research to other types of business models.
- It was not possible to ascertain the effectiveness of the business model design and innovation strategies for creating competitive advantage in most of the cases in the study due to the young ages of the firms.
- The small size of the multi-sided platform population in South Africa limited the diversity of the potential sample that could be studied in the research.

## 7.6. Suggestions for Future Research

Based on the insights derived from this research, the following are suggested as potential avenues for future research:

- A fuzzy set Qualitative Comparative Analysis (fs/QCA) assessment to understand which combinations of the business model design strategies put forward in this paper lead to superior firm performance.
- The Competitive Advantage Framework can be validated by quantitatively testing a larger sample of managers to understand if they do follow the steps suggested by the model.
- An exploration of the applicability of the Competitive Advantage Framework within other business model design paradigms outside of multi-sided platforms
- An exploration of the business model design strategies for creating competitive advantage used by business models that are driven through a technology push paradigm.
- A comparative study of firms in both developed and developing markets to

understand if their business model design strategies are the same or different

- An exploration of the strategies used for creating compelling ecosystems within multi-sided platforms that leverage value co-creation.

## **7.7. Conclusion**

This research has provided new insights into the strategies that owner-managers use to create competitive advantage with the design of their business models. Through exploratory, qualitative interviews with 13 founders of multi-sided platforms, rich insights were derived and analyzed to add empirical insights to the literature on business model innovation. The study uncovered the challenges of transferring business models from one context to another and highlighted the enabling effects of the platform ecosystems in which multi-sided platforms operate. Partners were shown to influence the design of the multi-sided platforms in the study and value co-creation with partners emerged as a prominent attribute of multi-sided platforms. This value co-creation was shown to be a vital component of creating ecosystems within the business models of the firms in the study. Finally, four strategies emerged for creating competitive advantage with business model design. The key points of this study were then summarized in a framework that may prove useful as a tool for creating successful multi-sided platforms.

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## Annexure A: Interview Schedule and Consent Form

### Informed Consent Form

I am conducting research on open business model design and innovation, and am trying to find out more about how companies create competitive advantage with open business models. Our interview is expected to last 45 minutes to 1 hour, and will help us understand how process, enablers and challenges of successful open business model innovation. **Your participation is voluntary, and you can withdraw at any time without penalty.** All data will be reported anonymously, with identifiers used in place of your and your company's name(s). If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher: Neil Sinclair

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Phone: 072 855 6901

Phone: 072 888 6888

Signature of participant: \_\_\_\_\_

Date: \_\_\_\_\_ 2017

Signature of researcher: \_\_\_\_\_

Date: \_\_\_\_\_ 2017

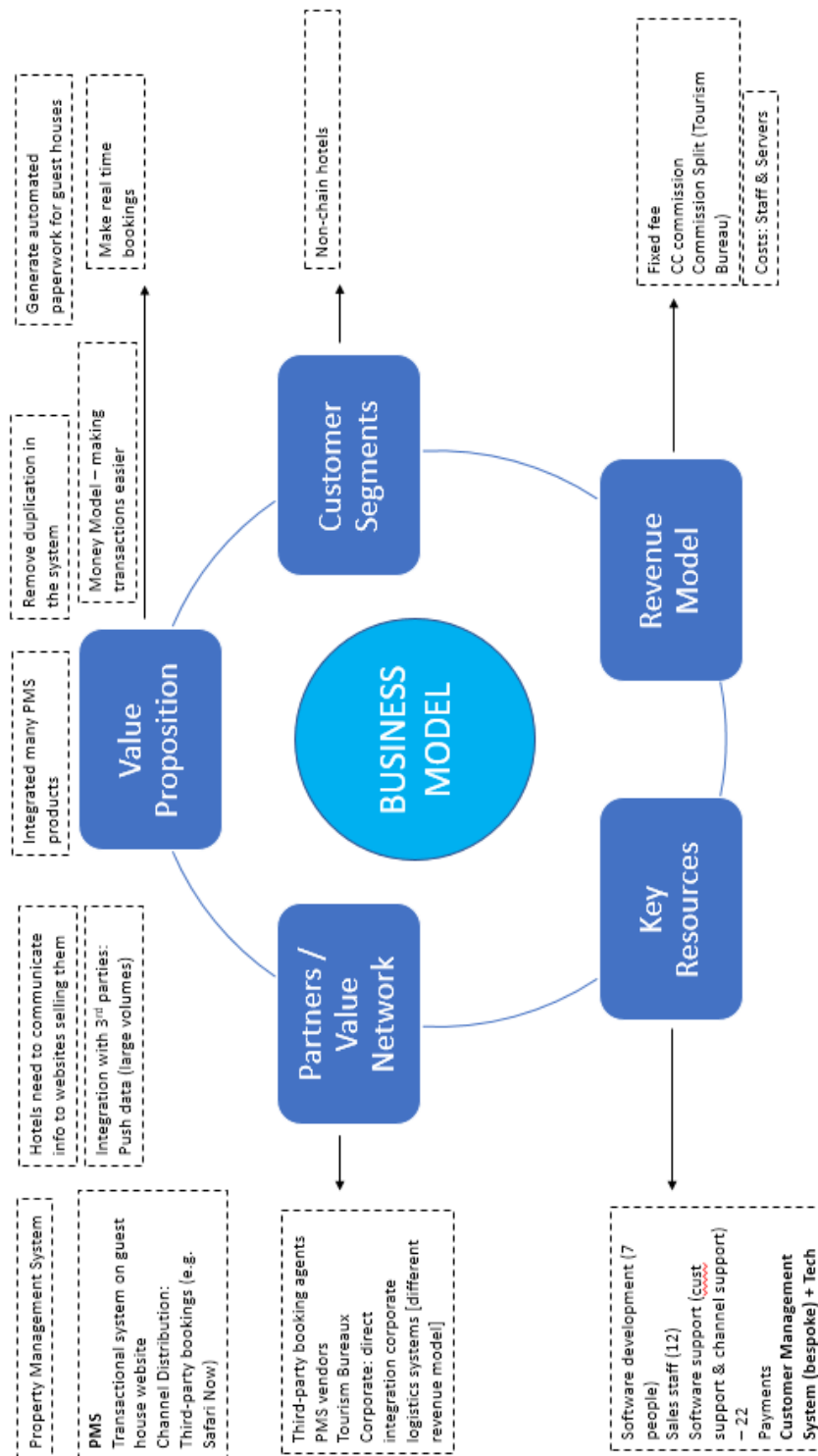
### Semi-Structured Interview Questions

- 1) Can you describe your business model for me as it is now?
  - a) Present a diagram to allow the use of the 5-factor business model framework to structure the answer around: Value proposition, customer segment(s), value network (partners), resources and revenue/cost structure
- 2) How many partners do you have in your network? How deep are the relationships? Do you have strong relationships with any partners?
- 3) How do your external partners contribute to your business model?
- 4) How did you design your business model?
  - a) Was it market pull (opportunity) driven or technology push (idea) driven?
- 5) How has your business model changed over time?
  - a) How are your partners involved in the design of your business model?
  - b) What has driven these changes over time?

- c) What has enabled you to create a platform business model? (e.g. technology, partner support)
  
- 6) How does your business model interlock with that of your partners? How do you create lock in with customers or partners?
  
- 7) How does your business model give you an advantage over competitors? How is it differentiated from competitors?
  - a) Do you have strong copyright protection?
  - b) Have you created network effects?
  - c) Did you think about designing your business model to give you an advantage?
  - d) Do you innovate your business model regularly?
  
- 8) What have been your challenges in developing and maintaining your platform business model?
  - a) How do you stop business partners from pushing you out of the value chain or from working with more cost-effective partners?
  - b) How do you deal with changes in your partners' business models?

## Annexure B: Completed Business Model Diagram

The below is an example of a completed business model diagram. This was taken from the interview with Bed Net.





## Annexure C: Ethical Clearance

**Gordon  
Institute  
of Business  
Science**  
University  
of Pretoria

13 July 2017

Neil Sinclair

Dear Neil,

*Please be advised that your application for Ethical Clearance has been approved.*

*You are therefore allowed to continue collecting your data.*

*We wish you everything of the best for the rest of the project.*

*Kind Regards*

GIBS MBA Research Ethical Clearance Committee

## Annexure D: Atlas.TI codebook

### Individual Codes

C.A.: can't stop copying  
C.A.: competitors don't go there  
C.A.: constant innovation  
C.A.: customer service  
C.A.: differentiator  
C.A.: disruptor  
C.A.: ecosystem  
C.A.: first mover  
C.A.: focus  
C.A.: geographical  
C.A.: intentional  
C.A.: IP  
C.A.: key resource  
C.A.: lock-in  
C.A.: low cost  
C.A.: making mistakes (learning curve)  
C.A.: more than just pricing  
C.A.: new value proposition  
C.A.: no one doing this  
C.A.: partners can't do what we do  
C.A.: relationships  
C.A.: revenue model  
C.A.: rich value prop  
C.A.: tech  
C.A.: under the radar  
challenge: consumer education  
challenge: customers didn't understand  
challenge: customers' ways of working  
challenge: developers  
challenge: differentiation  
challenge: funders  
challenge: getting people onto the platform  
challenge: key partners  
challenge: market conditions

challenge: multi-homing  
challenge: no copy protection  
challenge: South African market  
challenge: team  
customers: influence  
enabler: new revenue model  
enabler: other platforms  
enabler: technology  
enabler: the founder's network  
founder's history  
good quote  
key partners: always be open to new partners  
key partners: as key resources  
key partners: breadth  
key partners: changing business model  
key partners: co-creation  
key partners: community  
key partners: credibility  
key partners: customers as partners  
key partners: deliver an experience  
key partners: depth  
key partners: ecosystem  
key partners: funding  
key partners: grow network / distribution  
key partners: help them  
key partners: influence  
key partners: leverage resources  
key partners: limit the company  
key partners: mapping out roles  
key partners: nice to have at the start  
key partners: no contract  
key partners: not available at the start  
key partners: reasons not to partner  
key partners: relationship  
key partners: strong relationship with buyers  
key partners: trust  
key partners: values

need to be impartial with customers  
network effects  
network effects: pricing  
open bm: access to resources  
open bm: giving access to market  
open bm: inwards licensing  
open bm: outward licensing  
open bm: reason for opening - innovation  
open bm: share platform  
platform: needs both sides  
platform: touch points  
process: antecedent - new opportunity  
process: antecedent - cash flow  
process: business model innovation  
process: chance  
process: change - challenges  
process: closing vs opening the platform  
process: constant change  
process: creating lock-in  
process: defined at the start  
process: economic disruption  
process: ecosystem  
process: founder's vision  
process: how it started  
process: imitated other models  
process: insight - market trends  
process: intuition  
process: iterative & experimental  
process: make or buy  
process: market positioning  
process: market pull  
process: new channels  
process: new customer segments  
process: new revenue model / streams  
process: new value proposition  
process: pivot  
process: product innovation

process: spin off businesses  
process: tech push  
structure: customers  
structure: definition  
structure: free to user  
structure: interdependence  
structure: key partners  
structure: key resources  
structure: multi-sided  
structure: revenue model  
structure: value proposition - access to market  
structure: value proposition - access to resources  
structure: value proposition - connects  
structure: value proposition - convenience  
structure: value proposition - data  
structure: value proposition - efficiency  
structure: value proposition - entertainment  
structure: value proposition - individualized product  
structure: value proposition - payments  
structure: value proposition - selection  
structure: value proposition - trust & security

### **Code Families**

RQ1: PROCESS

RQ1: T1 - How It Started

RQ1: T2 - Business Model Innovation

RQ1: T3 - Broad Processes

RQ1: T4 - Opening The BM

RQ2: CHALLENGES & ENABLERS

RQ2: T1 - Challenge: Customers

RQ2: T2 - Challenge: Partners

RQ2: T3 - Challenge: Resources

RQ2: T4 - Enabler: Other platforms

RQ3: PARTNERS

RQ3: T1 - External Influence

RQ3: T2 - Co-Creation

RQ3: T3 - Access to Market

RQ3: T4 - Value Add

RQ3: T5 - Relationship

RQ4: COMPETITIVE ADVANTAGE

RQ4: T1 - Differentiators

RQ4: T2 - Innovating Value

RQ4: T3 - Entry

RQ4: T4 - Network Effects

RQ4: T5 - Lock In

RQ4: T6 - Relationships

RQ4: T7 - Revenue Model