

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

# Business model innovation in South African startups

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A research proposal submitted to the Gordon Institute of Business Science,  
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MASTER OF BUSINESS ADMINISTRATION

**TERTIA BARRETT**

**96021935**

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## ABSTRACT

The rise of successful technology startups has seen an increasing interest in their ability to innovate conventional business models to create unique value that is disrupting highly competitive industries. This study investigates business model innovation within startups and its potential to provide new firms with a unique opportunity to develop a competitive advantage and differentiate themselves from competitors.

The value-capturing potential of business model innovation has amassed increasing interest in academic literature, but its application in an entrepreneurial context requires further exploration.

Within the South African context, entrepreneurship is a macroeconomic imperative in to order address growth and unemployment challenges. However, most startups fail. This study sought to understand the challenges encountered by startups in relation to business model innovation.

This qualitative study, by way of semi-structured interviews, gained access to two South African incubators - a total of 14 startups were interviewed.

The results of this study indicated that entrepreneurs were not yet poised to take advantage of business model innovation and remained reactive to its value-creating power in favour of conventional focus areas. An uncertain entrepreneurial environment combined with a lack of business experience emerged as significant challenges. A new model to address these shortcomings was then developed.

## KEY WORDS

Business models, business model innovation, entrepreneurship, technopreneurs

## 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.

Student Name: Tertia Barrett

A handwritten signature in black ink that reads "T Barrett". The signature is written in a cursive style and is underlined with a single horizontal line.

Signature: \_\_\_\_\_

Date: 13 January 2016

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# BUSINESS MODEL INNOVATION BY SOUTH AFRICAN STARTUPS

## CHAPTER 1: INTRODUCTION TO RESEARCH PROBLEM

### 1.1 PURPOSE OF THE STUDY

Über, the world's largest taxi company, does not own any vehicles. Facebook, the world's most popular social media site, creates no content and Airbnb, the world's largest accommodation provider, does not own property (Goodwin, 2015; The Economist, 2015). These examples of highly successful former startups show that existing, highly competitive industries can be disrupted by new startup ventures who have employed business model innovation. Business model innovation involves the discovery and implementation of fundamentally different methods of combining a firm's value proposition, value creation and value capture to an existing business (Teece, 2010; Velu, 2015). It provides startups the opportunity to differentiate themselves in the market and construct an inimitable competitive advantage (Chesbrough, 2010; Frankenberger, Weiblen, Csik, & Gassmann, 2013; Gassman, Frankenberger, & Csik, 2014; Teece, 2010; Zott, Amit, & Mass, 2011). Despite its potential benefits, business model innovation does not appear to be a focus area for new entrepreneurial ventures.

Improving startup success is a macroeconomic imperative as entrepreneurship plays an important role in driving sustainable economic growth (Bruyat & Julien, 2001; Carree & Thurik, 2010; Herrington, J. Kew & P. Kew, 2014), however a high number of startups fail (Carree & Thurik, 2010; Herrington et al., 2014; Velu, 2015). The practicality and predictive power of business models are expected to increase the success rate of new enterprises by purposefully guiding decisions, actions and eradicating incorrect assumptions during the critical initial stages of a new venture (Chesbrough, 2010; Johnson, 2010; Spieth, Schneckenberg, & Ricart, 2014; Trimi & Berbegal-Mirabent, 2012).

Notwithstanding the increasing popularity of business model innovation in both academic and popular literature, its core elements and the process firms undergo to design and evaluate their business model are still fundamentally unknown (Schneider & Spieth, 2013). The paucity of an integrated theoretical framework on which to build, has resulted in fragmented research recognising the need to understand the stages that companies go through to develop an innovative business model, including implementation and challenges (Frankenberger et al., 2013; George & Bock, 2011; Teece, 2010; Zott et al., 2011).

Research to date on the process and elements of business model innovation has been mostly explanatory in nature aimed at improving understanding of the phenomenon and has predominantly been focused on its implementation in incumbent firms (Demil & Lecocq, 2010; McGrath, 2010; Schneider & Spieth, 2013; Sosna, Trevinyo-Rodríguez, & Velamuri, 2010). However, research on its application in an entrepreneurial context has thus far been limited (George & Bock, 2011; Trimi & Berbegal-Mirabent, 2012; Velu, 2015).

The purpose of this study is threefold. Firstly, to contribute to the current academic literature on the emerging concept of business model innovation. Secondly, to understand the use of and challenges created by business model innovation for startup entrepreneurs. Thirdly, by introducing a new model to increase startup utilisation of business model innovation processes and harness its positive revenue and value creation effects.

## **1.2 CONTEXT OF THE STUDY**

“Entrepreneurs are redesigning the basic building block of capitalism” (The Economist, 2015, “Reinventing the company”, para.1). While public companies are struggling to extract profits, in part due to low growth and increasing wages, a new breed of high potential startups are pioneering a new way of how business works (The Economist, 2015). Their expansion is no longer limited by the need to own large assets since startups exploit technology and buy in, rent or crowdsource services as they need them. This new way of accessing and combining resources allows startups to create, offer and capture value in a unique way and, in doing so, designing innovative business models that competitors are finding hard to replicate.

Firms who have innovative business models were found to be on average 6% more lucrative than pure product or process innovators (BCG, 2008). More than 40% of Chief Executive Officers (CEO) expect their next competitive threat to come from competitors outside their industries who are changing the rules of engagement and reinventing how value is created (IBM, 2013). Examples of former startups that have successfully utilised business model innovation to disrupt existing competitive industries abound. From their small start in 2007, Airbnb enabled 40 million room nights in 2014 and has been valued at \$25.5 billion (Somerville, 2015). In just five years Über has expanded into more than 229 cities and 46 countries, transporting millions of people daily, all over the world (The Economist, 2015).

Despite the potential for success, startups function in an environment of extreme uncertainty (Ries, 2011; Trimi & Berbegal-Mirabent, 2012) and a high number of startups fail (Carree & Thurik, 2010; Herrington et al., 2014; Velu, 2015). The potential impact of business model innovation on

firm performance has led to the creation of a range of business model innovation frameworks in an attempt to guide firms toward successful business model innovation (Gassman, Frankenberger, & Csik, 2014; Johnson, 2010; Morris, Schindehutte, & Allen, 2005; Osterwalder & Pigneur, 2010; Spieth & Schneider, 2014).

Notwithstanding the proliferation of business model frameworks to assist new ventures with business model innovation, significant reasons why startups fail include not having a clear value proposition, not understanding their target customer and the inability to effectively commercialise their innovations (Johnson, 2010; Ries, 2011; Teece, 2010). This indicates the need to better understand how startups approach business model innovation and the challenges they experience. Furthermore, an improved understanding of the dynamics of business model innovation in startups and a new simplified business model innovation framework to guide startups in the business model innovation process and will be proposed.

### **1.3 SIGNIFICANCE OF THE STUDY**

Globalisation, increased access to information, ease of communication and the speed of technology development in the new global economy, have given rise to greater competition and more informed consumers (Casadesús-Masanell & Ricart, 2010; McGrath, 2010). In several industries, new entrants have challenged leading firms and upset mainstream markets (Christensen & Rosenbloom, 1995; The Economist, 2015) highlighting the significance of business model innovation for new ventures and existing firms (Gassman et al., 2014; Johnson, 2010).

Despite its relevance in today's changing business world, academic development on business model innovation has largely been descriptive in nature (Morris et al., 2005; Morris, L., 2009; Spieth et al., 2014; Teece, 2010; Wirtz et al., 2015; Zott et al., 2011). Furthermore, extant literature has failed to converge the variety of definitions of business model innovation with the ensuing result that the term is not being consistently applied, and consequentially inconsistencies in the conceptual frameworks exist (Spieth et al., 2014; Wirtz et al., 2015; Zott et al., 2011).

There is an absence of empirical evidence that evaluates the relationship between business model innovation and firm performance (Spieth et al., 2014), the survival of new firms (Velu, 2015) and the practicality of business model innovation in startups (Kesting & Günzel-Jensen, 2015). Furthermore, the diverse nature of business model innovation underpins the need for research on distinguishing the different types of business model innovation that could be used by startups (Schneider & Spieth, 2013).

Startups have a high failure rate, owing to the high levels of risk, complexity and uncertainty faced by entrepreneurs (Carree & Thurik, 2010; Trimi & Berbegal-Mirabent, 2012). This is, even more, relevant to technology startups as a result of the competitive and fast paced nature of technological development (Gambardella & McGahan, 2010; Trimi & Berbegal-Mirabent, 2012). Though technological innovation gives firms a dynamic capability in the market (Paradkar et al., 2015), technological innovation by itself has no value and needs to be commercialised through a business model (Chesbrough, 2010; Teece, 2010). Improving the success rate of startups garners consideration as entrepreneurship plays a significant role in driving sustainable economic growth (Carree & Thurik, 2010; Velu, 2015).

In conclusion, this qualitative study will provide insight into how South African entrepreneurs approach business model innovation, including the challenges experienced, providing insight on the existing knowledge deficiencies identified. In addition, providing a new model which holds the potential to increase the success rate of startups, and in so doing have a positive impact economic growth in South Africa.

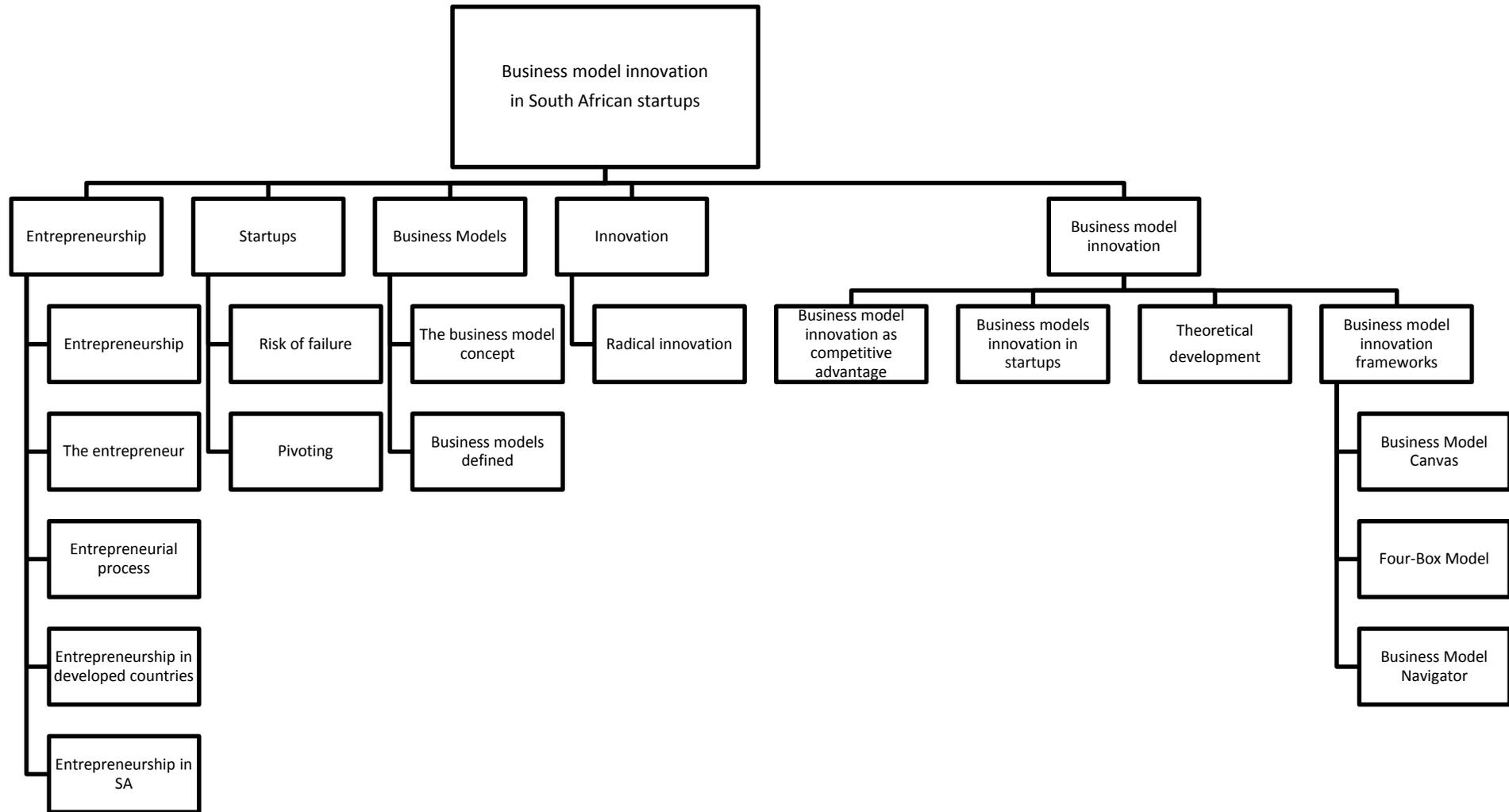
## CHAPTER 2: LITERATURE REVIEW

### 2.1 INTRODUCTION

The concept of business models has evolved from being viewed as a “complementary reflection of corporate strategy” (Spieth et al., 2014, p. 237) which explained how the business created value for customers, their cost structure and how the business captured value (Teece, 2010); into a priority focus area for practitioners and scholars. Not only did they explain and guide how a business commercialised their ideas or technologies, but presented innovative business models had the potential to disrupt existing markets by providing a unique competitive advantage that competitors found difficult to replicate (Gassman et al., 2014; Osterwalder & Pigneur, 2010; Teece, 2010).

The purpose of this study was analysed to interrogate four fundamental themes: entrepreneurship, business models, innovation and business model innovation. A review of the current literature provided a foundation for research on these topics and presented a framework upon which this study was based. This literature review began by outlining the topic of entrepreneurship and the value of its contribution to economic development. Thereafter, it continued by evaluating the differences between entrepreneurship in developed countries and South Africa considering the environment in which entrepreneurs operated and the subsequent influence on their success (Velu, 2015). Moreover, the literature review evaluated the factors that contributed to new venture failure or success. The literature review then extrapolated the current understanding of the concept of business models and evaluation of the various elements that underpinned a business model. Moreover, a high-level review of innovation was included before extrapolating the emerging concept of business model innovation. Figure 1 contains an outline of the structure of this literature review.

**Figure 1: Structure of the literature review**



## **2.2 ENTREPRENEURSHIP**

### **2.2.1 Introduction**

The field of entrepreneurship was depicted as complex, dynamic and unpredictable (Bruyat & Julien, 2001; Carree & Thurik, 2010; Teece, 2010; Trimi & Berbegal-Mirabent, 2012), whilst governments and economists alike mostly agreed that it was an essential source of economic growth due to its contribution to economic development, job creation and innovation (Carree & Thurik, 2010; Herrington et al., 2014). The significance of entrepreneurship to economic growth led to an intensification of publications both in academic and popular literature on a variety of diverse facets of entrepreneurship. Despite the volume of literature on the subject, the multi-dimensional nature of entrepreneurship resulted in a variety of definitions and interpretations of the phenomenon (Bruyat & Julien, 2001; Carree & Thurik, 2010). A summary of the key literature around entrepreneurship as it applied to this study is reviewed below.

### **2.2.2 Entrepreneurship defined**

The Global Entrepreneurship Monitor (GEM) defined entrepreneurship as any attempt, by an individual or team of individuals, at creating a new business or new venture (Herrington et al., 2014). This included self-employment, a new business organisation, or the expansion of an existing business. A more detailed description took into account the ability and willingness of the individual to create new economic opportunities and introduce their ideas to the market, in the face of uncertainty and obstacles, by effectively combining resources and institutions (Carree & Thurik, 2010). Entrepreneurship was explained as being concerned with change, beginnings and the creation of value for both the entrepreneur and external stakeholders (Bruyat & Julien, 2001). Additionally, it was not restricted only to individuals starting a new small firm and included individuals in large enterprises who embark on entrepreneurial actions, referred to as corporate entrepreneurs. This study, however, concentrated on new entrepreneurs in startups. New entrepreneurs were regarded as entrepreneurs that had started and were currently running a new business that had been in operation for between 3 and 48 months (Herrington et al., 2014).

### **2.2.3 The entrepreneur**

The recognition of the individual formed a vital element in new value creation (Bruyat & Julien, 2001). Entrepreneurs saw opportunities in situations where others saw risks (Saravathy, 2001) and had to be constantly aware of changes in the environment and potentially new innovations in the market. They recognised opportunity by detecting meaningful patterns from seemingly

independent variables (Baron & Ensley, 2006) and were adept at managing risks and functioning in an uncertain environment. The entrepreneur was someone who was not only adept at managing risks but also at deploying resources and managing relationships in pursuit of profit (Paradkar et al., 2015; Trimi & Berbegal-Mirabent, 2012).

Entrepreneurs' reasons and motivation for starting a business varied and included a need for independence, need for personal development, need for approval, welfare considerations, wealth aspirations (Birley & Westhead, 1994) or a vision to solve a market problem identified (Moogk, 2012). Their motivation for starting the business could influence their reason for continuing the venture (Hechavarri, Renko, & Matthews, 2012), however once started did not appear to influence the growth of the venture (Birley & Westhead, 1994).

Founders' previous business experience was a critical factor in startups growth and success (Oe & Mitsuhashi, 2013). The ability to successfully deploy resources in pursuit of profit was a characteristic that formed part of effective business model design, and hence was an important attribute in the attainment of entrepreneurial success (Velu, 2015). In addition to the key role of the entrepreneur, the entrepreneurial environment played a significant role in driving entrepreneurship as well as entrepreneurial success (Bruyat & Julien, 2001; Herrington et al., 2014). Entrepreneurship could be further explicated by considering the entrepreneurship process and the role played by the entrepreneur in venture creation and success.

#### **2.2.4 The entrepreneurship process**

Three major components described the entrepreneurial process of starting a new venture: it began with the identification or recognition of an opportunity, building the team, and the selection and combination of resources to successfully exploit the idea (Trimis & Berbegal-Mirabent, 2012). The main area addressed through this study was the third portion of this process, namely how entrepreneurs effectively combined resources including the creation of a suitable business model in order to capture value from the opportunity. Evaluating the potential target market, building the right product, sourcing funding required for growth and developing the right business model were viewed as key elements in this complex process (Teece, 2010; Trimi & Berbegal-Mirabent, 2012). This was an iterative process as the probability of startups creating a successful business model the first time was low (Comberg, Seith, German, & Velamuri, 2014). Entrepreneurship is context dependant (Balboni & Bortoluzzi, 2015), which rendered evaluating the environment entrepreneurs operate in necessary in this study. The entrepreneurial environment in developed countries compared to South Africa is discussed below.

### **2.2.5 Entrepreneurship in developed countries**

The success of entrepreneurial activities was influenced by the capabilities and resources of the entrepreneur as well as the environment they operated in (Velu, 2015). Entrepreneurs in developing countries faced different challenges from their counterparts in developed countries (Arinaitwe, 2006). These challenges included financial constraints, labour law, the level of education of the potential workforce, the ease of starting a company, government involvement, tax implications and the available infrastructure (Herrington et al., 2014).

Case study research from large developed countries, such as the United States, inferred that the sizeable domestic markets of large countries provides entrepreneurs with a commercial advantage, including ample opportunity to test and get feedback from potential customers, and was complemented by well-developed venture capital and stock markets (Paradkar et al., 2015). The effects of this favourable environment were confirmed with the 2014 Global Entrepreneurship Monitor (Herrington et al., 2014) which stated that developed countries including the United States and the United Kingdom scored better than average for total early stage entrepreneurship and perception of opportunities for entrepreneurship.

Total Early-Stage entrepreneurship consisted of two phases; nascent entrepreneurs who were regarded as entrepreneurs who had taken initial actions to start the business, but had not paid any salaries or wages yet and had been operating for less than three months and new entrepreneurs, who had been in operation between 3 and 42 months (Herrington et al., 2014). As a developing country, South African entrepreneurs had a smaller domestic market and faced a unique set of challenges; however, it also presented unique opportunities, expounded upon below.

### **2.2.6 Entrepreneurship in South Africa**

One of the most significant challenges faced by South Africa was the high rate of unemployment, especially youth unemployment (South African Government, 2014). The 2014 Global Entrepreneurship Monitor report for South Africa reported that South Africa had not been able to depend on the corporate sector and government to create jobs (Herrington et al., 2014). As a consequence, the emphasis had been directed to small to medium sized enterprises for job creation, which had made entrepreneurship a priority on the national agenda (South African Government, 2014).

High unemployment often led to people starting businesses as there was no opportunity for work (Herrington et al., 2014). The 2014 GEM report for South Africa had indicated that 7.0% of the

adult populace in South Africa was presently engaged in entrepreneurship while 2.7% own or managed an established business. Furthermore, this rate of entrepreneurial activity was very low for a developing nation compared to its regional peers. Good infrastructure and financial institutions were regarded as enablers to entrepreneurship in South Africa, where constraints included an uneducated workforce, inefficient government bureaucracy and onerous labour laws (Herrington et al., 2014).

A concerning fact was that entrepreneurial activity in South Africa had dropped by almost 34% from 2013 to 2014, and between 60% - 70% of those new ventures failed (Herrington et al., 2014; South African Government, 2014). The GEM 2014 report listed the main reasons for new business failure as the business' inability to generate enough profit, trouble with getting access to finance as well as the regulatory burden and high cost of doing business. Centralised bargaining and inflexible labour legislation also contributed to the risk associated with starting a new enterprise (Magruder, 2012). This decline in entrepreneurial activity advocated the importance of understanding why new ventures fail as well as providing them with a suitable solution to reduce the failure rate of new entrepreneurial ventures.

In order to encourage and support entrepreneurial activity in South Africa, the South African government had launched several initiatives to enhance entrepreneurship in the country. This included several government-sponsored business and innovation incubators such as the Innovation Hub. In addition, South Africa's Small Business Minister, Lindiwe Zulu, announced the Startup Nations South Africa Initiative in 2014 (South African Government, 2014). Another initiative by the South African government was to increase the points allocated to enterprise development and supplier development as part of a company's Broad-Based Black Economic Empowerment (B-BBEE) scorecard (Department of Trade and Industry, 2015). The act incentivised firms to develop small enterprises. Their contribution accumulated points towards their B-BBEE scorecard. This was a collaborative effort aimed to advance the national agenda of growth in entrepreneurship as well as created a sustainable environment where startups could network and share best practices globally.

### **2.3 STARTUPS**

The term startup first emerged in popular literature, but had made its way into academic research in recent years, when describing new entrepreneurial ventures, yet no unified definition existed. Though some authors linked the concept to technology ventures (Ornek & Danyal, 2015), its adoption in academic literature had been across all industries. A startup was defined as a group

of individuals that had come together to create and deliver new value in the form of a new product or service in extremely uncertain circumstances, as postulated by Ries (2011). They developed around a vision that a product or service would be embraced by a market as it solved a customer's specific or urgent problem (Moogk, 2012). The extreme uncertainty combined with the dynamic and complex nature of entrepreneurship contributed to a high failure rate (Bruyat & Julien, 2001; Trimi & Berbegal-Mirabent, 2012; Ucbasaran, Shepard, Lockett, & Lyon, 2013).

Technology-based startups were defined as new ventures where specialised technical knowledge led to advanced technological discoveries, which were commercialised through new products and services (Trimis & Berbegal-Mirabent, 2012). The success of new technologies required fast and efficient management of knowledge-intensive assets in order to exploit the opportunities the technology innovation presented. The fast pace of technology development resulted in additional challenges such as a short product life-cycle, the possibility that competitors could easily duplicate innovation, as well as the substantial financial investment required to get the product commercialised and introduced to the market (Teece, 2010; Trimi & Berbegal-Mirabent, 2012).

### **2.3.1 Startups and risk of failure**

Entrepreneurs operated under extreme uncertainty, and many startups failed within their first few years (Carree & Thurik, 2010; Velu, 2015). Recent studies showed that the high rate of failure could be attributed to a variety of reasons. Trimi and Berbegal-Mirabent (2012) suggested that this was due to a lack of a systematic process for discovering markets for their product, identifying customers, and validating assumptions to avoid failure. Hence, a higher priority should be placed on truly understanding the needs of the client and problem to be solved (Osterwalder & Pigneur, 2010) as well as make customer feedback a priority (Ries, 2011).

In addition, new ventures failed as a result of not possessing the required capabilities, including the financial resources, to build complementary assets (Paradkar, Knight, & Hansen, 2015); the degree of competition (Velu, 2015) as well as interpersonal friction between the initial entrepreneurs (Paradkar et al., 2015). In highly innovative startups, failure could often be attributed to their inability to commercialise innovations effectively despite the presence of a market opportunity, a novel, innovative idea or talented entrepreneurs (Paradkar et al., 2015). A well-developed business model was vital to ensure value was captured from innovations (George & Bock, 2011; Magretta, 2002; Teece, 2010; Wirtz et al., 2015). Table 1 provides a summary of the reasons for startup failure according to literature.

**Table 1: Summary of reasons for startup failure from literature**

Reasons for startup failure according to literature	Authors
An inability to commercialise innovations effectively including a viable business model	(Morris et al., 2005; Paradkar et al., 2015; Teece, 2010)
Insufficient knowledge of their target customers, including clear value proposition to solve the job-to-be-done and lack of focus on customer feedback	(Groenewegen & De Langen, 2012; Johnson, 2010; Morris et al., 2005; Ries, 2011)
Startups lacked a systematic process for discovering their markets and often made incorrect assumptions	(Magretta, 2002; Trimi & Berbegal-Mirabent, 2012)
They did not have the required capabilities and resources	(Paradkar et al., 2015; Teece, 2010)
There was a high degree of competition	(Velu, 2015)
Lack of financial resources to maintain business development	(Comberg et al., 2014; Groenewegen & De Langen, 2012; Savaneviciene, Venckuviene, & Girdauskiene, 2015)
Regulatory obstacles	(Herrington, J. Kew, & P. Kew, 2014)

### **2.3.2 The concept of pivoting or failing fast**

The traditional method of bringing a new or novel product or solution to the market was known as Waterfall product development and tended to follow a linear progression from idea to product launch (Ries, 2011; Trimi & Berbegal-Mirabent, 2012). The product was tested internally before launching to the market. The shortcomings of this traditional method were that it necessitated a great deal of advanced planning and forecasting and amplified risks, as customer response was not guaranteed, neither was it suited to the prevailing fast-paced, changing business environment (Ries, 2011; Trimi & Berbegal-Mirabent, 2012).

The competitive nature of technological innovation necessitated technology startups to be flexible, agile and respond faster to change than their competitors. The traditional method focused on the execution of a pre-determined plan, not learning and discovery of what problem the product solved or how customers perceived this value as important (Blank, 2013). In startups, an innovation to their business model was referred to as a "pivot" (Ries, 2011, p. 149). The term pivot steadily received increased attention in entrepreneurship literature and referred to a significant change or "structured course correction designed to test a new fundamental hypothesis about the product, business model or engine for growth." (Ries, 2011, p. 178). Validated learning and pivoting formed the foundation of the Lean Startup concept introduced by Eric Ries (2011). The concept of pivoting advocated that startups tested their product, business model and assumptions with the market or potential customer as quickly as possible, giving them an opportunity to assess how the market responded to the value offering, providing the startup

with valuable learning (Blank, 2013; Chesbrough, 2010). This gave the company necessary information in order to decide if they would persevere, which meant to continue on their current path, or pivot, meaning a major structured change from their original path (Blank, 2013; Ries, 2011). The authors postulated that by failing fast, gaining insight from the failure and adjusting accordingly to minimise costs, increased the chances for successful commercialisation and customer acceptance and endeavoured to reduce time to market compared to the traditional method (Trimi & Berbegal-Mirabent, 2012).

Startups had a high risk of failure due to the uncertainty inherent in starting a new venture. Business models had been associated with entrepreneurial performance and consequently escalated the likelihood of entrepreneurial success (Kesting & Günzel-Jensen, 2015; Velu, 2015; Wirtz et al., 2015). An overview of business models and business model innovation as a potential source of competitive advantage for entrepreneurial firms are subsequently reviewed

## **2.4 BUSINESS MODELS**

### **2.4.1 The business model concept**

Business models had been emphasised in entrepreneurship literature since it became a buzzword in the 1990s, which coincided with the development of information and communication technologies, followed by a rise in internet companies (DaSilva & Trkman, 2014; Gassman et al., 2014). Since 1995, numerous articles had been published in peer-reviewed academic journals where the concept of business models was addressed with a sharp increase in the number of articles post 2007, signifying evidence of its growing importance (Zott et al., 2011). Academic development on the term had mostly existed in silos, contributing to an incoherent understanding of the concept (Zott et al., 2011).

Notwithstanding the absence of a unified description of business models, their potential influence on the success or failure of a new venture made them a focus area in daily business practice, especially in technology entrepreneurship (Chesbrough, 2010; DaSilva & Trkman, 2014; Morris et al., 2005). Despite gaining momentum in academic literature and its relevance in the prevalent turbulent business world, scholars had yet to agree on a coherent definition of a business model (Bock & George, 2011; DaSilva & Trkman, 2014; Zott et al., 2011)

### **2.4.1 Business models defined**

“The essence of a business model is in defining the manner by which the enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit.” (Tece,

2010, p. 172). Business models were likewise regarded as value creation through the exploitation of business opportunities (Chesbrough 2010; Zott et al., 2011), as a reflection of strategy (Casadesús-Masanell & Ricart, 2010; McGrath, 2010), the business narrative of how the company worked (Doganova & Eyquem-Renault, 2009; Magretta, 2002) or how the firm delivered value at a profit (Johnson, 2010; Teece, 2010). In addition, business models were viewed from an activity systems perspective which incorporated a systematic approach challenging existing transaction cost economics using the firms' unique dynamic capabilities (Zott & Amit, 2009).

The absence of a consistent framework resulted in disparate views on what a business model was. The table below illustrated the series of diverse, and some partially contradicting, definitions of business models in the literature from 2002 - 2015.

**Table 2: Business model definitions extracted from literature 2002-2015**

Source	Explanation of what a business model is
Magretta (2002)	Business models were “stories that explain how enterprises work” (p.4) A good business model needed to answer the questions: Who is the customer? What does the customer value? How do we make money in the business and what is the underlying rationality that describes how to provide value to customers profitably?
Morris et al. (2005)	A business model was a “concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics [were] addressed to create sustainable competitive advantage in defined markets” (p. 727)  The authors delineated six factors: Value proposition, customer, source of competence, external competitive positioning, how did they make money and the time, scope and size goals (Morris et al., 2005)
Zott & Amit (2007)	“A business model elucidate[d] how an organisation [was] linked to external stakeholders and how it engage[d] in economic exchanges with them to create value for all exchange partners” (p. 181). Zott and Amit (2007) introduced two business model design themes: design novelty and design efficiency; both themes were associated with improved firm performance and could function together.
Zott & Amit (2008)	“The business model [was] a structural template of how a focal firm transact[ed] with customers, partners, and vendors; that is, how it [chose] to connect with factor and product markets.” (p. 3). It refers to the overall picture and interrelatedness of the components

Source	Explanation of what a business model is
Bailetti (2009)	Business models were similar to market offers: “For a company's commercialization efforts to succeed, it need[ed] to come up with great market offers which [had] great business models” (p. 4). Bailetti (2009) postulated that conceptual tools could potentially assist with creating and communicating a company's business model and help articulate implicit knowledge into explicit knowledge.
Doganova & Eyquem-Renault (2009)	“The business model is a narrative and calculative device that allows entrepreneurs to explore a market and plays a performative role by contributing to the construction of the techno-economic network of innovation” (p. 1559).
Osterwalder & Pigneur (2010)	“The business model [was] like a blueprint for a strategy to be implemented through organisational structures, processes, and systems” (p. 15).
Chesbrough (2010)	A business model accomplished the following functions: The value proposition, specified a target market and how revenue was generated. It defined the structure of the value chain and complementary assets that were required to deliver value. It detailed how the firm would generate revenue, estimate the cost structure for profit estimation and described the competitive positioning of the firm.
Johnson (2010)	A business model “define[d] the way the company deliver[ed] value to a set of customers at a profit” (p. 7).
Teece (2010)	“the essence of a business model [was] in defining the manner by which the enterprise deliver[ed] value to customers, entice[d] customers to pay for value, and convert[d] those payments to profit.” (p. 172)
George & Bock (2011)	The management research literature describe[d] business models as i) the organisational design; ii) as a link between resources and business outcomes; iii) the narrative of the organisation; iv) suggested opportunities for innovation as links between technological innovation and the structure of the organisation; v) how transactions were structured; and as vi) intermediaries in the process of progressing from opportunity to value creation.
DaSilva & Trkman (2014)	“The term “business model” [had] been frequently misused by both academics and practitioners... The term “business model” often appear[ed] to encompass everything from, among others, strategy, economic model, and revenue model.” (p. 379)

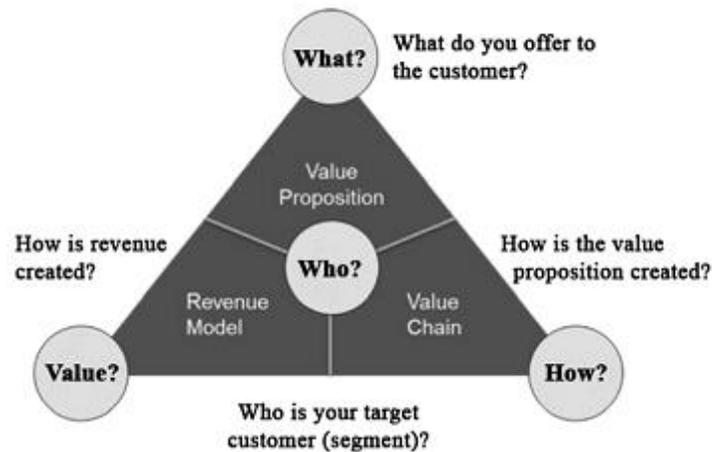
Source	Explanation of what a business model is
Gassman et al. (2014)	Four key components were identified: What do you offer to the customer? How is the value proposition calculated? Who is your target customer (segment)? How is Revenue created?

The variety of definitions suggested in Table 2 confirmed that while business models had gained widespread use in practice, academic literature on the topic remained fragmented and confounded by inconsistent definitions. The disparate views had led to increasing confusion and limited the ability for future research to move forward by building on a solid foundation. This confirmed the need for an integrated and unified definition of the concept (Lambert & Davidson, 2013; Spieth, Schneckenberg, & Ricart, 2014).

This study did not endeavour to introduce a new definition for business models, but understanding the essential key components was vital to evaluating business model development and innovation. Though the concept of a business model had evolved to include or exclude more descriptive elements, the above-mentioned definitions had the four core elements in common: Firstly, it was in defining the target customer; secondly, what value was provided to the customer, next included how resources were combined to offer that value to the customer and lastly, how revenue or profit was generated.

The following diagram, Figure 2, by Gassman, Frankenberger and Csik (2014) provided a simple visual description that depicted the four core elements of a business model that the definitions in Table 2 discussed: firstly, defining the target customer (Who?); secondly, what value was provided to the customer (What?), next included how resources were combined to offer that value to the customer (How?) and lastly, how revenue or profit was generated (Value?). This definition, as well as the four components, formed the basis on which this study was based since it incorporated a simple visual description on which to evaluate business model innovation in startups.

**Figure 2: Definition of a business model (Gassman et al., 2014)**



Despite the lack of a unified definition and explanation of business models, this disparity served to further emphasise that business models are a complex phenomenon that formed a crucial part of an organisation. Thus attempting to innovate a company’s business model could potentially be a difficult task to undertake. However, the complex nature of business model innovation enhanced its competitive advantage as competitors could find it hard to replicate, therein increasing its capability to create a sustainable revenue stream and its probability of success. Before exploring the concept of business model innovation, it first required a fundamental understanding of innovation and how these two concepts interlinked.

## 2.5 INNOVATION

### 2.5.1 Introduction

Innovation has been evident in many forms ranging from complex scientific principles, the invention of radically new technologies, to small incremental changes made to existing solutions (Paradkar et al., 2015). In order to profit from innovation, the innovation had to provide benefits that consumers perceived as valuable (Paradkar et al., 2015; Teece, 2010).

When startups developed and adopted new technologies, which addressed customers’ needs in different, emerging, often underserved, value networks, these innovations had the potential to disrupt established markets (Christensen & Rosenbloom, 1995). Start-ups that created entirely new benefits for customers, or improved on existing ones, allowed them to compete successfully with rival firms (Paradkar et al., 2015). Dominant incumbent rival firms often lagged behind new ventures due to a variety of internal or external perspectives resulting in a failure to act, which

gave startups an advantage when introducing radically different technologies (Christensen & Rosenbloom, 1995).

The process of developing a new technology-based firm has been characterised by an extraordinary level of uncertainty and a dynamic and turbulent environment (Trimi & Berbegal-Mirabent, 2012). This emphasised the importance of a good strategy to take the product to market and a good business model to commercialise the product. Innovation alone did not guarantee business success and needed to be reinforced by a suitable business model that clearly described how the business would capture value from the value offered to customers. Strategic analysis coupled with good business model design and implementation was necessary for technological innovation to succeed commercially (Chesbrough, 2010; Teece, 2010). This demonstrated the need for a clearly defined business model to provide structure and guidance, as part of the startup process.

Building on the existing literature, Groenewegen & De Langen (2012) explicated innovation as a process that delivered added value and newness to a business, its suppliers or customers as a result of having developed new processes, procedures, products or services including new approaches to commercialisation or a new business model. Innovation was frequently thought of as a new product or technological innovation, but innovation was able to vary in size, scale and newness, incremental or radical and be of a technological nature or business oriented (Groenewegen & De Langen, 2012). Business model innovation was palpably about reassessing the business around a defined customer need, then calibrating the resources, internal processes and profit formula with this new value proposition (Teece, 2010).

### **2.5.2 Radical innovation**

Radical innovation referred to a high degree of originality, impact factor, new knowledge contributed or impact of the innovation on the market (Groenewegen & De Langen, 2012; Souto, 2015). The significant departure from existing design potentially opened up new markets, new applications and opportunities (Velu, 2015). Radical innovation presented unique challenges to incumbent firms as it could require significant changes to the existing organisational structure, incur high research and development (R&D) costs which could potentially involve a lengthy payback period in addition to a significant degree of uncertainty of the potential market, the needs of the customer as well as managing the innovation (Groenewegen & De Langen, 2012; Teece, 2010). Despite these challenges, radical innovation had the potential to give a firm a first mover advantage, which was described as creating a competitive advantage as a result of being first to market with a new product, service or business model (Trimi & Berbegal-Mirabent, 2012).

However, the assumption that being first to market would automatically lead to sustained profits ignored the potential challenge firms confronted when calculating the interdependencies between the choice of business model and technology (Baden-Fuller & Haefliger, 2013).

The influence of launching a radically innovative product on the survival of firms had been varied. Though some studies suggested it increased the level of uncertainty and posed unique challenges (Groenewegen & De Langen, 2012; Velu, 2015), others have shown that adopting radical innovation could potentially disrupt existing markets and have led to potentially higher returns and increased market share (Christensen & Rosenbloom, 1995; Velu, 2015). Results were therefore inconclusive. In addition, the prevailing rate of change meant that firms needed to be conscious that a determined competitor could easily copy the innovation or circumvent it entirely (Groenewegen & De Langen, 2012; Morris L., 2009).

## **2.6 BUSINESS MODEL INNOVATION**

### **2.6.1 Introduction**

Business model innovation has been defined as a unique way to create and capture value, which was achieved by changing one or more components of the existing business model (Chesbrough, 2010; Frankenberger et al., 2013). Business model innovation was defined as being distinctive from product or process innovation. Product innovation entailed bringing a new product to market and process innovation entailed improved efficiency of a particular process, however, business model innovation incorporated a systemic change of the firm's approach to their customer value proposition as well as how they created and captured value (Zott & Amit, 2008).

It was found that firms who had innovative business models were on average 6% more lucrative than pure product or process innovators (Gassman et al., 2014). Notwithstanding the potential benefit of business model innovation to business, academic literature on business model innovation has been predominantly descriptive in nature (Chesbrough, 2010; Morris et al., 2005; DaSilva & Trkman, 2014). Despite the increase in the number of articles on the topic, the absence of a consistent framework led to fragmented research questions and findings, especially within an entrepreneurial context (George & Bock, 2011; Teece, 2010; Trimi & Berbegal-Mirabent, 2012).

### **2.6.2 Business model innovation as competitive advantage**

The average lifespan of companies listed in the S&P 500 index had been dramatically reduced from an average of 67 years in 1920 to 15 years in 2012, and the number appeared to be on a yet further downward trend (Gittleston, 2012). Langdon Morris suggested, "the lifespan of companies

[was] decreasing as the rate of change increase[d]” (2009, p. 191). The acceleration of changes in technology, greater access to information and the ease of communication were just some developments in the global economy that had given rise to increased competition and demanding consumers (Casadesús-Masanell & Ricart, 2010). In several industries, new entrants had challenged leading firms and upset mainstream markets with disruptive technologies or business models (Christensen & Rosenbloom, 1995; Gassman et al., 2014), driving both large incumbents as well as entrepreneurs to make business model innovation a top priority.

The risk of potential disruption has led to a proliferation of resource investment in new technology research with both existing companies and entrepreneurs contending for a significant industry disrupting innovation. However, technology by itself had no value until it had been commercialised in some way through an appropriate business model (Chesbrough, 2010; Teece, 2010). The importance of a business model was further emphasised by Chesbrough (2010) by postulating that a “mediocre technology pursued within a great business model may [have been] more valuable than a great technology exploited via a mediocre business model.” (p. 335).

In order to achieve a competitive advantage; incumbent firms and entrepreneurs needed to discover alternative strategic responses to the accelerating technological change (Trimi & Berbegal-Mirabent, 2012). Technology was often the catalyst for business model innovation (Baden-Fuller & Haefliger, 2013). Business model innovation encompassed a more methodical change that competitors found arduous to replicate. It became difficult for competitors to replicate not only as they would need to simultaneously change several components, but a new business model would need to fit a company’s core competencies and long term strategy (Bucherer, Uli, & Gassman, 2012). As a result, radical business model innovations had the potential to disrupt markets as they challenged the basis on which existing firms competed (Schneider & Spieth, 2013; Velu, 2015). To be a source of competitive advantage, a business model had to be refined to meet the demands of a particular customer and challenging or unattractive for competitors to replicate, thus potentially disrupting their existing relationships with customers, suppliers or partners (McGrath, 2010; Teece, 2010).

### **2.6.3 Business model innovation in startups**

Business models have been shown to be linked to performance and increased the chances of entrepreneurial success (Kesting & Günzel-Jensen, 2015; Velu, 2015; Wirtz et al., 2015). Business model innovation was recognised as a source of competitive advantage for entrepreneurial firms (Gassman et al., 2014; Teece, 2010; Trimi & Berbegal-Mirabent, 2012). Knowing how to capture value from innovation was an important element in the business model design (Chesbrough,

2010). Case study research had illustrated that in order to successfully commercialise innovation; entrepreneurial startups needed to leverage their dynamic capabilities and improve access to complementary resources (Paradkar et al., 2015). Technological innovation alone was not enough to ensure business success and needed to be combined with a successful business model (Gassman et al., 2014; Teece, 2010).

An example of successful business model innovation was the *razor and blade* model pioneered by Gillette in 1904 (Gassman et al., 2014; Teece, 2010). In this instance the business, used their existing resources, focused on the same target market. However they changed their revenue model component by selling their base product, the razor, inexpensively, but sold their blades at a higher cost. The *razor and blade* model had since been used in many industries including inkjet printers and more recently by Nespresso, creating an additional benefit to the business by locking in the customer ensuring recurring revenue (Gassman et al., 2014; Saebi & Foss, 2015). Nespresso effectively used the *razor and blade* model by selling their coffee machines at a reduced cost, making their profits from high margin coffee pods.

Another example to illustrate the potential benefit of business model innovation which gained popularity in recent years was the *pay per use* model, where the usage was distinctly measured and the customer, or consumer, only paid for what they used (Gassman et al., 2014). Customers benefited from additional flexibility, even though the per usage charge could potentially be priced higher. An example of successful deployment of the *pay per use* model was Google. Google's approach to delivering search engine results by use of their PageRank algorithm made them a popular choice among consumers compared to the prevailing competitors at the time including Yahoo and Lycos (Teece, 2010). Google's challenge was to continuously refine their offering whilst developing a revenue model that captured value from their search engine, in a world where consumers expected to search at no cost. Despite their superior search engine and gaining consumer popularity, initially, Google was not viewed as a promising new venture (Kesting & Günzel-Jensen, 2015). Two years later Google's founders created the pay per click advertising model, where instead of advertisers paying a monthly fee with no guarantee of return on investment, Google AdWords' pay per click option meant that advertisers would pay every time a user clicked on their advert. Moreover, they created functionality where advertisers could manage their own advertising budget and even bid against competitors for how much they were prepared to pay for a click. None of the prevailing competitors to Google had recognised the value-capturing opportunity of the *pay per use* model, which culminated in Google's high profitability and growth.

Though academic literature on the subject is limited, a more recent example of successful business model innovation was Über, who disrupted the prevailing competitive taxi industry by creating an innovative business model (Rayle, Dai, Chan, & Cevero, 2016). Started in San Francisco in 2010, Über changed several core business model components from the traditional taxi-service business model, using a combination of smartphone technology, which offered additional value in the form of convenience, and a dynamic matching algorithm, Über provided a taxi service when customers need it. In addition, instead of their own cars and drivers, they used ridesourcing using for-profit drivers who provided rides when they were able to (Rayle et al., 2016) thereby reducing their need to own and service their own assets. In addition, Über took control of the economic transaction and ultimately their profit model. They were an example of how business model innovation could be effectively used by a startup to disrupt an existing competitive industry and provide a unique competitive advantage that competitors found hard to copy. Although firms like Lyft have since copied the initial business model, Über was able to get an initial large market share.

These examples demonstrated one of the misconceptions about innovation, that it could only emanate from ideas no one had had before (Bucherer et al., 2012). Keeley, Pikkell, Quin, and Walters (2013) identified ten types of innovation that formed the basis of business model innovation. These included the profit model, network, structure, process, product performance, product system, service, channel, brand, and customer engagement. Based on the study of how successful firms innovated, the authors deduced that effectively combining more than one type of innovation allowed firms to create a unique business model. This created a competitive advantage and made it harder for competitors to replicate. It did not, however, mean that business model innovation was a guarantee of success as one could not exclude the high risk associated with innovation (Morris, L., 2009). Startups were confronted with business model innovation more frequently than established firms as the first model selected was seldom the final version and subsequently a new venture could adjust their business model multiple times until they finally decided on an appropriate version (Comberg, Seith, German, & Velamuri, 2014) or experimentally attempted various business models simultaneously (Baden-Fuller & Haefliger, 2013).

#### **2.6.4 Triggers to business model innovation**

Business model innovation could benefit both established firms as well as startups and frequently occurred in response to certain triggers. Sosna et al. (2010) postulated that pivoting in business models could be summarised as when a firm began " with a business model and then - in response to certain triggers (typically external)" (p. 384) adjusted their business model. However, triggers

to business model innovation could be both internal and external. In startups, business model innovation could be due to inexperience or uncertainty when developing their initial business model (Comberg et al., 2014), adjusting to more explicit customer needs, market misalignment or recognising new technological potential (Balboni & Bortoluzzi, 2015) or internal factors such as cash or finances (Comberg et al., 2014). This differed for established firms, where triggers could be as a result of a market crisis or change (Comberg et al., 2014), the macroeconomic climate affecting consumer spending (Giesen, Riddleberger, Christner, & Bell, 2010), firms realising that their conventional ways of doing business was failing (Schneider & Spieth, 2013), new emergent technology that threatened existing product offerings or created new market opportunities (George & Bock, 2011; Paradkar et al., 2015). Though not specifically linked to either startups or incumbent firms, Sako (2012) proposed that the ability to sense and “satisfy consumers’ unmet needs [was] perhaps the most important driver of business model innovation.” (p. 24).

Table 3 delineates a visual summary of the triggers to business model innovation in startups compared to established firms.

**Table 3: Triggers to business model innovation in startups compared to established firms**

Triggers of business model innovation in startups	Triggers to business model innovation in established firms
Due to lack of experience in the market (Comberg et al., 2014)	Market crisis or change (Comberg et al., 2014)
Adjusting to more specific customer needs	Macroeconomic environment effected consumer spending
Market misalignment	(Giesen, et al., 2010)
Sensing new technological potential (Balboni & Bortoluzzi, 2015)	Conventional ways of doing business failed (Schneider & Spieth, 2013)
Satisfying customer’s unmet needs (Sako, 2012)	Improved technology drove new market opportunities (George & Bock, 2011; Paradkar et al., 2015)
Internal factors such as cash flow and finances (Comberg et al., 2014)	Satisfying customer’s unmet needs (Sako, 2012)

As indicated in Table 3 triggers to business model innovation in startups were disparate from the triggers in established firms. Startups faced a high degree of uncertainty when developing their initial business model including ambiguity on the potential customer response, where established firms had extensive experience in their existing industry or markets. Correspondingly startups and established firms implemented business model innovation differently and faced unique challenges.

## 2.6.5 Challenges to business model innovation

Business model innovation had been designated a “complex art” (Teece, 2010, p. 176). As a first step, firms needed to change their focus from product innovation thinking to business model thinking (Frankenberger et al., 2013). It was suggested that established firms found the process highly challenging, not just owing to its complexity, but due to the difficulty in overcoming their existing business rationality (Frankenberger et al., 2013) including the existing business model that had contributed to their success (Chesbrough, 2010; Christensen & Rosenbloom, 1995; Koen et al., 2011), potentially making them blind to the changes required in the business model (Comberg et al., 2014). Despite substantial financial and human resources, the inertia prevalent in incumbent firms consequently necessitated a challenging process of achieving buy-in from stakeholders to initiate and execute the change (Comberg et al., 2014; Frankenberger et al., 2013). New opportunities forced established firms to go into an uncertain environment, where there was not a wealth of data which corporates were accustomed to when operating their mainstream business (Chesbrough, 2010).

Though research on the process and elements of business model innovation in startups was limited (Schneider & Spieth, 2013), case study research on new entrepreneurial ventures showed that entrepreneurial firms were adept at integrating and implementing new ideas and making decisions quickly (Comberg et al., 2014). Startups had limited financial resources and would have needed to procure and build the required complementary assets, compared to established firms who would already have had extensive financial and human resource capability (George & Bock, 2011; Paradkar et al., 2015). Due to the challenge in overcoming the current business rationality, incumbent firms required strong, autonomous leadership to drive a change of business model in an organisation, whereas startup firms were small and founders could conclude, initiate and drive the change (Chesbrough, 2010). Table 4 provides a visual comparison of business model innovation in startups compared to established firms.

**Table 4: Business model innovation in startups compared to established firms**

<b>Business model innovation in startups</b>	<b>Business model innovation in established firms</b>
Flexibility and quick decision making. Not confined by inherent logic (Comberg et al., 2014)	Difficulty in overcoming current business rationality and challenge to overcome existing business model that has contributed to current success  (Chesbrough, 2010; Christensen & Rosenbloom, 1995; Frankenberger et al., 2013; Koen et al., 2011)
Ease of implementation, agile and flexible (Comberg et al., 2014)	Inherent structure, process driven and long decision cycles

Business model innovation in startups	Business model innovation in established firms
	(Comberg et al., 2014; Frankenberger et al., 2013; Koen et al., 2011)
Higher influence of founders as they were still extensively involved in decisions and strategy (Comberg et al., 2014)	Founders could be merely shareholders and could have left the firm (Comberg et al., 2014)
Required effective resource procurement to build complementary assets (George & Bock, 2011; Paradkar et al., 2015)	Re-deployed or leveraged existing resources and organisational structure and did not need to build (George & Bock, 2011; Paradkar et al., 2015)
Lack of financial resources, potentially only one opportunity to pivot (Comberg et al., 2014; Paradkar et al., 2015)	Substantial financial resources including complementary assets (Comberg et al., 2014; Paradkar et al., 2015)
Leading change was simplified due to smaller size of the business and limited existing relationships with customers, suppliers and customers (Chesbrough, 2010)	Leading change and getting buy-in from all stakeholders including employees, suppliers and customers required (Comberg et al, 2014; Frankenberger et al., 2013)

A review of the challenges, substantiated that business model innovation was a complex undertaking. In addition, both startups and established firms encountered unique challenges initiating and executing the process. Consequently, when designing and executing business model innovation, firms needed to be knowledgeable of the attributes of successful business model design.

### **2.6.6 Successful business model design**

Three characteristics were regarded as critical to the design and execution of business model innovation. Successful business model innovations were required to leverage their core capabilities and design consistency both internally and externally (Giesen et al., 2010; Teece, 2010), secondly, it was required to be analytical by using information strategically to create foresight and monitored continually using sophisticated analytics (Chesbrough, 2010), and lastly they were designed to be adaptable and partnered with innovative leadership that could effect change (Chesbrough, 2010; McGrath, 2010; Teece, 2010). Table 5 provides a short summary of these key characteristics.

**Table 5: Characteristics critical to the design and execution of business model innovation**

Characteristic	
Leverage core capabilities and design consistency (internal and external)	(Giesen, et al., 2010; Teece, 2010)
Analytical to create foresight and monitor	(Chesbrough, 2010)
Adaptable and partnered with innovative leadership	(Chesbrough, 2010; McGrath, 2010; Teece, 2010)

### **2.6.7 Theoretical development**

Notwithstanding the growing interest in business models by practitioners and scholars, literature on the concept had evolved without an integrated, well-defined theoretical grounding in economic or business studies (Spieth et al., 2014; Teece, 2010; Zott et al.; 2011). The need for a unified perspective was illustrated by the number of articles that have emerged to propose a theoretical grounding for business models in an attempt to delineate the common trends observed by scholars and create a common ground for future business model research (DaSilva & Trkman, 2014, Spieth et al., 2014; Zott et al., 2011).

As a foundation to develop a theoretical grounding for business models, extant literature used Schumpeter's (1934) theory of economic development, which argued that value was created from a unique combination of resources. Framing business models within the resource based view (RBV) has increasingly gained popularity as it recognized the heterogeneity between firms' unique resources as a competitive advantage (Schneider & Spieth, 2013). The RBV by itself was unable to explain the complexity of business models, as resources as such did not bring any value to customers; value was only created through the transactions made with the use of resources (DaSilva & Trkman, 2014). An alternative viewpoint was using the RBV in conjunction with transaction cost economics (TCE), which identified transaction efficiency as a source of value creation (Morris et al., 2005; DaSilva & Trkman, 2014; George and Bock, 2011). This approach described the importance of combining the resources of a firm in a unique way (value creation) as well as effectively commercialising it (value capture).

A recent academic article by Schneider and Spieth (2013) suggest a tentative theoretical framework combining three distinctive theoretical perspectives: firstly, the resource based view, secondly, the dynamic capabilities view and lastly, the strategic entrepreneurship perspective. Each of the three perspectives had been used in their own right and observed business model

innovation from a different angle. While the current resourced-based view was dominant in most business model literature, the three theoretical perspectives provided a divergent explanatory approach to the concept of business model innovation (Schneider & Spieth, 2013).

The literature to date had not been able to clearly define the term “business model innovation” (George & Bock, 2011). The disparate views in the literature emphasised the necessity to clarify the theoretical underpinning and establish a unified theoretical framework of the business model innovation concept (DaSilva & Trkman, 2014; George & Bock, 2011; Schneider & Spieth, 2013).

Despite the lack of a unified theoretical framework for business models, it was clear that business models form a crucial part of an organisation. Therefore, innovating an organisation’s existing business model could potentially be an arduous task to undertake. This had led to the creation of business model development frameworks to assist companies and managers through the process.

### **2.6.8 Frameworks for business model development**

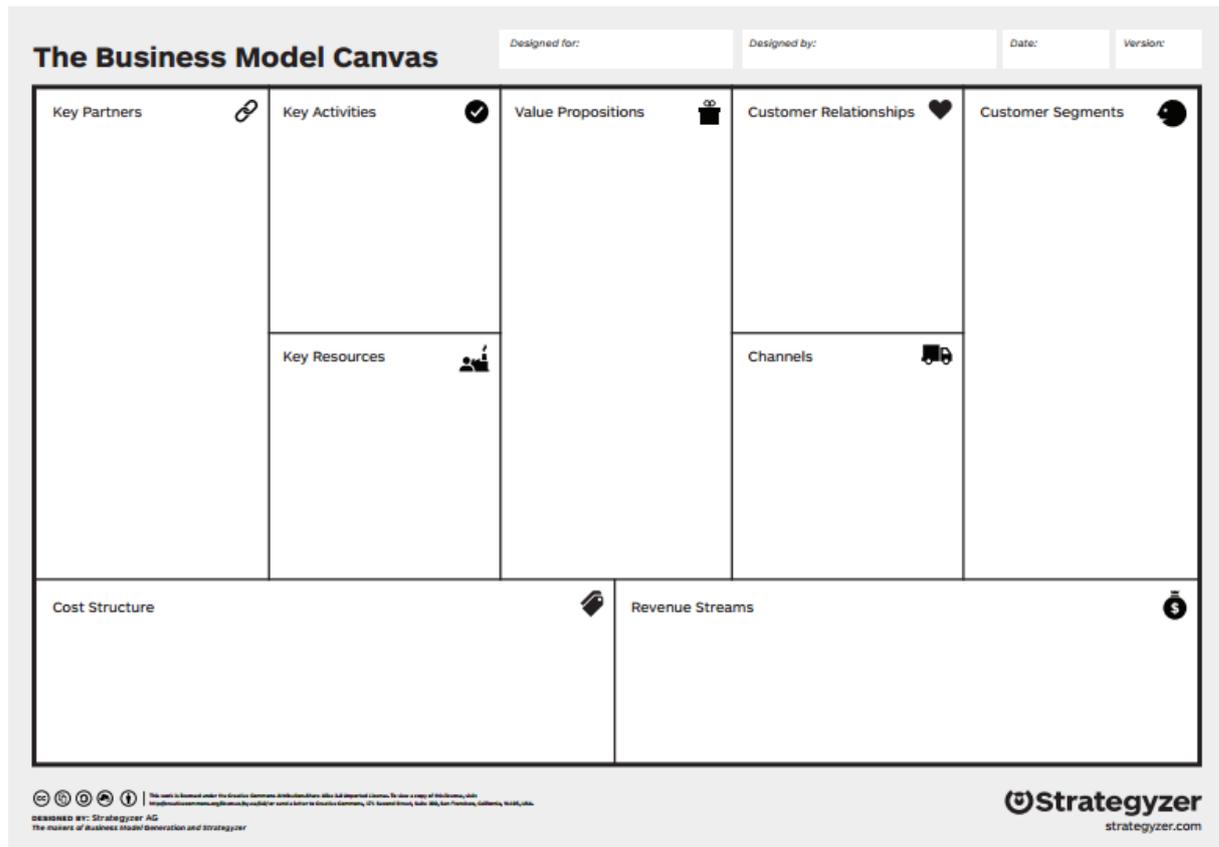
Business model frameworks provided a structure for assisting companies in business model discovery and design. They provided a formal, conceptual structure that described all the components, elements and relationships of a business model (Zott et al., 2011). It also offered a common vocabulary through which to compare and discuss business models. The accelerating change of the business landscape had seen a surge in business model innovation articles, videos, books, tools and frameworks. Frameworks were intended to guide entrepreneurs in the development. However, Chesbrough (2010) postulated that frameworks were helpful in explicating business models, but used in isolation they did not drive innovation.

Designing a new business model “require{d} creativity, insight, and a good deal of customer, competitor and supplier information and intelligence” (Teece, 2010, p. 187). The ideal business model framework should be easy to understand, simple to use, yet provide enough direction and focus to effectively capture the firm capabilities and strategically relevant aspects of the business. Though a variety of business model development frameworks exist, this literature review evaluated three frameworks which feature more prominently in current academic literature as well as popular press. These included Seizing the Whitespace (Johnson, 2010), the Business Model Canvas (Osterwalder & Pigneur, 2010) and the Business Model Navigator (Gassman et al., 2014). The study will analyse the three models below to gain a critical understanding of the models and evaluate their benefits and applicability for use by startups.

### **2.6.8.1 The Business Model Canvas**

The Business Model Canvas, created by Osterwalder and Pigneur (2010), was designed as a systematic approach to guide firms in creating new business models. It was underpinned by their book *Business model generation: a handbook for visionaries, game changers, and challengers* (2010), which combined the nine building blocks for identifying patterns, design, strategy and process to ensure success. Visualisation was a core facet of using the Business Mode Canvas and Osterwalder and Pigneur had constructed a graphical representation of the nine building blocks on the Business Model Canvas to guide users (see Figure 3 below). The Business Model Canvas had gained popularity in the entrepreneurial community as well as top-rated universities and business schools as part of their Master of Business Administration (MBA) or entrepreneurial programs. The Business Model Canvas is regarded as being easy to use and had been made available to download online at no cost. This has made it a popular choice for startups and existing firms who wish to innovate their business models. In addition, the Business Model Canvas has been publically endorsed by entrepreneurial experts such as Steve Blank of Stanford University and Henry Chesbrough, of Berkley University. It was described as a conceptual instrument that guided timeous decision making for business model development (Trimi & Berbegal-Mirabent, 2012).

**Figure 3: The Business Model Canvas (Osterwalder & Pigneur, 2010)**



The authors postulated that the Business Model Canvas was expected to benefit startups in four ways: firstly, the graphical visual representation of the business model provided cohesion of all the elements of Business Model Canvas and how the components related to each other; secondly, it allowed key stakeholders such as owners, employees, competitors or customers to understand how the business aligns all the different components and facilitates communication and “creative discussion” of the vision and mission of the firm; the integration of the various components was viewed as a significant benefit to entrepreneurs by ensuring attention to all the different components instead of a myopic focus on a limited number of specific parts; and lastly, the graphical tool “incorporate[d] design thinking methodology, which encourage[d] creative developments” focused on the needs of customers (Osterwalder & Pigneur, 2010; Trimi & Berbegal-Mirabent, 2012). The nine building blocks are defined in Table 6 below.

**Table 6: The Business Model Canvas - Nine building blocks for business model generation**

<b>The Business Model Canvas: Nine building blocks for business model generation</b>	
Customer Segments	For whom are we creating value? Who are our most important customers?
Value Proposition	Clearly articulate the value that the firm delivers to customers. Understand what is the problem you need to solve and what need you are satisfying
Channels	Through which channels do our customers want to be reached?
Customer relationships	What type of customer relationship does each of our customers expect us to establish and maintain with them?
Revenue Streams	Understand how much customers are prepared to pay for the value. Evaluate what they are currently paying for solving their problem and why?
Key Resources	Identify the key resources required to create and sustain the value proposition
Key Activities	What are some of the key activities required to perform your value propositions?
Key partnerships	Consider who your key partners and suppliers are and what key activities they perform?
Cost structure	Describe the most important costs inherent in the business model and identify the most expensive resources required to deliver value?

The Business Model Canvas had gained popularity as a very useful tool in guiding startups and companies from the ideation phase to creating a complete business model. Using its nine building blocks, it covered most areas essential to building a business model for any business.

One aspect of the Business Model Canvas, which had drawn opprobrium, was that the Business Model Canvas lacked a consideration of the existing competitive environment in which the business would operate, which was critical in determining a competitive position in the marketplace (McGrath, 2010). Despite its growing popularity, the effectiveness of the model had not been empirically tested.

#### **2.6.8.2 Seizing the White Space**

Seizing the White Space (Johnson, 2010), was a business model framework designed by Mark Johnson. The framework suggested that to take advantage of growth opportunities, companies must innovate away from their core capabilities. This was regarded as venturing into the “white space.” Johnson created a useful four-box framework for understanding the business model (Table 7) and provided a comprehensive step-by-step process for firms to design and execute a new business model.

Looking briefly at the four elements of the four-box business model, they were as follows:

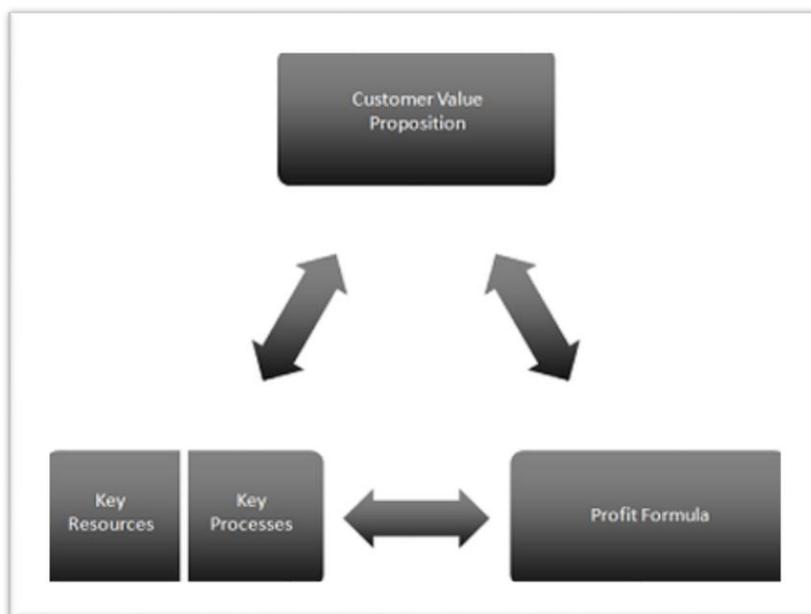
**Table 7: The Four-Box Model Seizing the White Space (Johnson, 2010)**

The Four-Box Model	
Customer Value Proposition	Focuses on the offering that helped customers solve an important problem (job-to-be-done) more efficiently, reliably, conveniently, or affordably solve at a given price.
Profit Formula	Defined how the firm will create value for itself and its shareholders. It included an evaluation of the cost structure, margins and as well as the rate required to cover them.
Key Resources	The unique resources required to deliver the value proposition to customers like people, products, technology, facilities, equipment, funding, and brand.
Key Processes	The method of how the company would deliver the customer value proposition in a sustainable, scalable, and manageable way.

Unlike the Business Model Canvas, which focused on documenting the existing nature and core capabilities of the business, the Seizing the White Space business model framework (Johnson, 2010), suggested that to take advantage of growth opportunities, companies must innovate away from their core capabilities. In addition, as shown in Figure 4, there is a strong focus on the interrelatedness and iterative nature of business model development.

The nature of the interaction between these four elements can be seen in Figure 5 below:

**Figure 4: The Four-Box Model - Seizing the White Space (Johnson, 2010)**

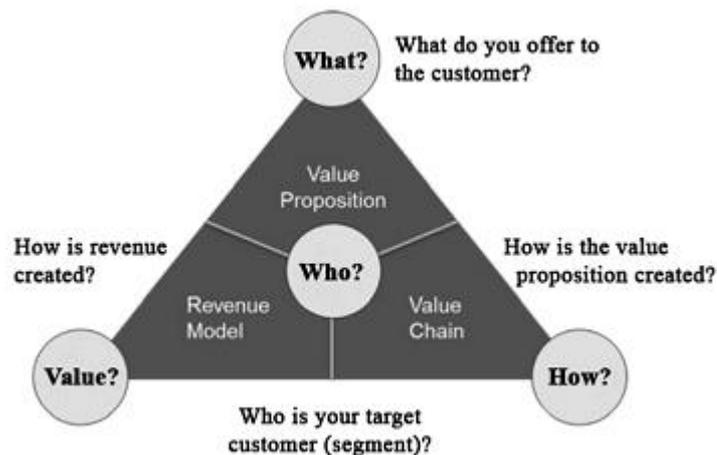


By following the process shown in Figure 4, the Four-Box Model encourages firms to find growth by innovating outside of their core capabilities. The Business Model Navigator, which will be discussed next, provided examples of business models to guide firms

### 2.6.8.3 The Business Model Navigator

The Business Model Navigator by Gassman, Frankenberger and Csik (2014) was proposed as a comprehensive approach to business model innovation and provides users thereof with 55 business model examples to utilise. First it looked at four main questions, or central dimensions, that had to be asked or addressed to define the business model: firstly, who was the target customer; secondly, the value proposition towards target customers; next, the value chain that creates the value and lastly, the revenue model that will ensure you capture the value. The authors postulate that by answering the four questions, it allowed the business model to become tangible and form a complete picture of the inside and of outside the firm and suggested it created a common ground for rethinking business models (Gassman et al., 2014). Gassman et al. (2014) suggested that by recombining existing concepts, new business model ideas could have been generated, which is not distinctly different from the approach followed by the Business Model Canvas which was previously discussed.

**Figure 5: Definition of a business model: The Business Model Navigator (Gassman et al., 2014)**



Frankenberger et al. (2013) proposed that business model innovation was a four-step process consisting of (step 1) Initiation – preparing for the journey; (step 2), Ideation – moving into new directions; and (step 3), Integration – completing the picture (step 4) Implementation. To guide firms in designing a unique business, the Business Model Navigator itemised had 55 patterns of successful business models which had been used in business, some of which some were elaborated upon earlier in this paper. The 55 patterns that were acknowledged were: add-on,

affiliation, aikido, barter, cash machine, cross selling, crowd funding, crowd-sourcing, customer loyalty, digitisation, direct selling, e-commerce, experience selling, flat rate, fractional ownership, franchising, freemium, from push to pull, guaranteed availability, hidden revenue, ingredient branding, integrator, layer player, leverage customer data. licence, lock-in, long-tail, make more of it, mass customisation, no frills, open business model, open source, orchestrator, pay per use, pay what you want, peer-to-peer, performance-based contracting, razor and blade, rent instead of buy, revenue sharing, reverse engineering, reverse innovation, robin hood, self-service, shop-in-shop, solution provider, subscription, supermarket, target the poor, trash-to-cash, two-sided market, ultimate luxury, user designed and white label (Gassman et al., 2014). In addition, the authors postulated that the Business Model Navigator provided a comprehensive solution for challenging existing companies to expand their business or create a new business model (Frankenberger et al., 2013). However, its applicability to startups has not yet been tested.

#### 2.6.8.4 Frameworks for business model development

Table 8 below provides a summary comparison of the four business model frameworks discussed in this paper.

**Table 8: Comparison of business model frameworks**

Authors	Business model components	Advantages
Business Model Canvas (Osterwalder & Pigneur, 2010)	<ol style="list-style-type: none"> <li>1. Customer Segments</li> <li>2. Value Proposition</li> <li>3. Channels</li> <li>4. Customer relationships</li> <li>5. Revenue Streams</li> <li>6. Key Resources</li> <li>7. Key Activities</li> <li>8. Key partnerships</li> <li>9. Cost structure</li> </ol>	<p>Designed for both new entrepreneurial ventures and exiting companies that wanted to reinvent their business model.</p> <p>Free download was available online</p> <p>The graphical tool facilitates design thinking and discussion</p>
The Four Box Model (Johnson, 2010)	<ol style="list-style-type: none"> <li>1. Customer Value Proposition</li> <li>2. Profit Formula</li> <li>3. Key Resources</li> <li>4. Key Processes</li> </ol>	<p>Companies were encouraged to innovate beyond their core capabilities</p>
The Business Model Navigator (Gassman, et al., 2014)	<p><u>Phase 1: Define the business - four central dimensions</u></p> <ol style="list-style-type: none"> <li>1. Target customer,</li> <li>2. The value proposition towards target customers,</li> </ol>	<p>Users were encouraged to find unique combinations of the four elements to drive business model innovation.</p>

Authors	Business model components	Advantages
	3. The value chain behind the creation of the value and 4. The revenue model that will ensure you capture the value <u>Phase 2: Four step process</u> 1. Initiation 2. Ideation 3. Integration 4. Implementation	The four step process had empirically been tested in a multiple case study approach of existing firms Suggested 55 business model patterns that can be used

The business model development frameworks reviewed above were selected due to their presence in academic and popular literature. Despite the advantages postulated by the authors, academic review of the frameworks is limited. Using a multiple case study approach, *the 4I-framework of business model innovation: a structured view on process phases and challenges*, Frankenberger et al., (2013) inferred the structure and challenges established companies go through to innovate their business models. However, this research has not been conducted on new ventures or startups.

Due the lack of empirical testing of these business models for startups, one model cannot be conclusively regarded to be better than the others. In addition, Chesbrough (2010) postulated that frameworks are intended to guide entrepreneurs in business model development and were helpful in explaining their business model; however, used in isolation they did not drive innovation.

## 2.7 CONCLUSION

The literature had revealed that entrepreneurship was a complex, dynamic and unpredictable phenomenon characterised by extreme uncertainty, which led to a high rate of failure among new ventures. However, its contribution to economic growth made the success of new ventures a critical focus area for business and government organisations. Business models were viewed as a valuable construct in entrepreneurship as it encouraged firms to consider key aspects during the early stages of the venture that guided their decisions, assumptions and actions, thereby reducing the uncertainty associated with starting a new venture.

Business model innovation should be a priority for new firms as it influenced their competitive position. However, business model innovation's core elements, process, identification, design and evaluation remain largely unknown (Spieth et al., 2014). Research on business model innovation

has been predominantly descriptive in nature (Chesbrough, 2010; DaSilva & Trkman, 2014; Morris et al., 2005) and the absence of a consistent framework has led to fragmented research questions and findings, notably within an entrepreneurial context (George & Bock, 2011). The research lacks an integrated framework that includes the stages that companies go through to develop an innovative business model including design, implementation and challenges (George & Bock, 2011; Frankenberger et al., 2013).

The rationale of this research project was to evaluate the process, elements, design and challenges of business model innovation specifically focused on startups. In so doing, this study aims to answer the deficiencies in the literature called for by Teece (2010), Trimi and Berbegal-Mirabent (2012), Frankenberger, Weiblen, Csik and Gassmann (2013), Lambert and Davidson (2013) as well as Schneider and Spieth (2013) hence, this study will analyse the structures and processes of business model innovation in startups.

Kesting and Günzel-Jensen (2015) suggest that research has not evaluated the challenges and practicality of business model innovation in startups; hence, this study aims to understand the key challenges that hinder business model innovation in startups. Schneider & Spieth (2013), in their recent assessment of business model innovation literature, conclude that “business model innovation’s core elements and the process of their identification, design and evaluation remain largely unknown.” (p. 23)

Chapter 3 will expound upon the research questions that follow from the literature review in full detail.

## CHAPTER 3: RESEARCH QUESTIONS

In a review of the literature surrounding business models, strategy and innovation, Teece (2010) observed that the strategy and economic literature has failed to analyse and explain the business model concept properly, despite its importance in business. “Our understanding of the nature of the firm itself, together with the role of entrepreneurs and managers in the economy and in society, should also benefit from a better appreciation of business models and their role in entrepreneurship, innovation and business performance.” (Teece, 2010, p. 192)

Business model innovation is recognised as a source of competitive advantage for entrepreneurial ventures advantage (Chesbrough, 2010; Frankenberger, Weiblen, Csik, & Gassmann, 2013; Gassman, Frankenberger, & Csik, 2014; Teece, 2010; Zott, Amit, & Mass, 2011). Furthermore, business model innovation is important for new ventures as it influences their chances of survival (George & Bock, 2011). Despite the apparent benefits of business model innovation to startups, limited research exists that evaluates the process and challenges of startups in business model innovation (Trimi & Berbegal-Mirabent, 2012; Lambert & Davidson, 2013).

Schneider and Spieth (2012, p.19), in their recent assessment of business model innovation literature, conclude that “business model innovation’s core elements and the process of their identification, design and evaluation remain largely unknown.” The research lacks an integrated framework that includes the stages that companies go through to develop an innovative business model including design, implementation and challenges (Frankenberger et al., 2013). Furthermore, the diverse nature of business model innovation underpins the need for research on distinguishing the different types of business model innovation that could be used by technology startups (Schneider & Spieth, 2013).

Having identified the above knowledge deficiencies, and the existence of a potential area of contribution to the academic field, this study aims to address the above knowledge deficiencies and extend the theory in the entrepreneurship literature by asking the following research questions:

### Research Question 1:

**During the initial startup phase, which business model components are the focus area for entrepreneurs?**

### Research Question 2:

**What is the structure and process of business model innovation in startups?**

Research to date has been industry or venture specific, limiting the generalisation of findings (Lambert & Davidson, 2013). Business model frameworks are designed to assist companies in business model design and innovation, but there is a lack of research on the process of successful business model innovation (Lambert & Davidson, 2013; Frankenberger et al., 2013).

Research Question 3:

**Do startups use business model development frameworks when creating their business model?**

Research has evaluated the challenges incumbent firms face with business model innovation (Frankenberger et al., 2013), however, research has not evaluated the challenges and practicality of business model innovation in startups (Kesting & Günzel-Jensen, 2015). Startups face unique challenges and possess dynamic capabilities that differentiate them from incumbent firms.

Research Question 4:

**What are the challenges startups face with business model innovation?**

A detailed discussion of the research methodology follows in Chapter 4.

## **CHAPTER 4: RESEARCH METHODOLOGY**

### **4.1 INTRODUCTION**

This Chapter outlines the research methodology employed for this study and denotes a discussion of the context, decisions made and the rationale for the chosen method. It includes an overview of the research design, the population and unit of analysis, a description of the research sample size, data collection methods as well as the analysis of the data are specifically addressed.

### **4.2 RESEARCH METHOD AND DESIGN**

A qualitative, inductive approach was employed in this study order to develop a richer theoretical perspective and contribute insights to the existing and emerging concept of business model innovation as postulated by Yin (2015). The literature review, discussed in Chapter 2, formed the theoretical basis for this research project and proposed that research to date on business model innovation has been mostly descriptive in nature and indicated the need for deeper understanding of, the use of and challenges, of business model innovation in startups.

Qualitative research is associated with an interpretive perspective as it aims to understand the subjective and socially constructed meanings articulated in the phenomenon being studied (Saunders, Lewis, & Thornhill, 2012). This necessitated the intrusive nature of a qualitative research approach, as new insights were expected to emerge from discussions with the initial founders or CEOs of the startups (Denzin & Lincoln, 2009).

A series of face-to-face, semi-structured interviews were selected for this study. The semi-structured interviews were guided by an interview schedule containing key questions and themes to be covered in each interview. While providing some structure to the interview, it provided sufficient flexibility to give entrepreneurs an opportunity to reflect on events and provide insight and perspective (Bloomberg & Volpe, 2012; Saunders et al., 2012).

Although interviews contain inherent strengths ideal for qualitative research, there are various limitations associated with interviewing. Interviews are not an impartial instrument for data collection as it is the result of the interaction between the interviewer and the interviewee in a particular context (Bloomberg & Volpe, 2012). In addition, interviews require researcher skill and acknowledge that not all participants are equally accommodating and willing to share information. Limitations of the research are further discussed in section 4.8.

### 4.3 POPULATION AND SAMPLING FRAME

The population is the complete set of members from which the sample is taken (Saunders et al., 2012) and includes all startups or new entrepreneurial ventures in South Africa. Due to the time constraints associated with this research project, it was not practical to survey all startups and new ventures within South Africa. To acquire information rich cases, it was important for the study to select startups that had undertaken the development of a business model or business plan and commercialised their solution and hence were not still in an idea phase. As a result, the sampling frame was narrowed to startups hosted at two startup incubators based in South Africa. Each incubator had a pre-selection process that all startups undertook prior to selection which required the startups to have a viable business case, business plan and demonstrate viability. These requirements increased the quality of the results of the study.

Context is viewed as an essential element in qualitative research as human behaviour is a function of the interaction between the person and the environment (Lewin, 1935; Bloomberg & Volpe, 2012). Trainor and Graue (2013, p. 14) suggested that “Context in qualitative research [could] be viewed as how the research question and study [were] staged”. The sampling frame provided the context of this study and involved the two unique incubators at which the sample of startups selected, were hosted. A description of the two incubators selected is discussed below.

#### **The Innovation Hub (Incubator 1)**

Incubator 1 (INC 1) was an incubator sponsored by the Gauteng Provincial Government through the Gauteng Growth and Development Agency SOC Ltd and focused on advancing innovation in South Africa. This internationally accredited science and technology park has created several initiatives to support and drive innovation, progress and enterprise development. They targeted specific sectors including information and communications technology, advanced manufacturing, the green economy and biosciences as a key to contributing to economic growth, job creation and a reduction in poverty (The Innovation Hub, 2015). One of their initiatives was the business incubation programme for innovative startups, which consisted of a pre-incubation programme (6-9 months) and the main incubation programme, which consisted last up to three years. Incubated startups took full ownership of their business and future success, but were guided by experienced experts as part of a mentorship programme which included the provision of ongoing, optional training sessions. In addition, the incubator provided startups with office space as well as a variety of value-added services including intellectual property support services, access to a 3D printing studio to print and design prototypes and a tool to assist them with market research.

The incubator programme incorporated two stages that startups go through: the pre-incubation stage, where the emphasis was placed on refining the business concept, and the core incubation stage where the business concept has been refined sufficiently, and the emphasis was placed on commercialisation, revenue growth and sustainability. For this study, startups already in the core-incubation stage were chosen as the business concept would, to a large extent, already have been developed and the solution commercialised. The incubator programme hosted a total of 18 startups in their core-incubation stage at the time of the study.

### **Shanduka Black Umbrellas (Incubator 2)**

Incubator 2 (INC 2) was a non-profit enterprise development incubation programme dedicated to supporting emerging black owned businesses in South Africa, who had received numerous international awards recognising their success. Their goal was to reduce the high failure rate of black owner managed businesses through specific intervention at the different stages of the business. The programme started with an initial three month pre-incubation phase where founders were put through an intense, practical training and mentoring phase to guide their thinking and challenge some of their assumptions and transfer business skills. After the three-month period, startups had to pitch their business plan to a panel which evaluates these plans, and once approved the startups entered full incubation. The final stage was graduation. Startups that were accepted as part of the incubation programme could utilise the dedicated office space, have ongoing mentoring and access to professional networking and marketing initiatives (Shanduka Black Umbrellas, 2015).

At the time of the research study, this incubator maintained a total of 35 startups in their incubation phase of which 16 were hosted at their Johannesburg offices and the remaining utilised their own office space across the country, and were viewed as virtual clients. In addition, the incubator also had 7 startups that were in the pre-incubation phase and in the process of qualifying by presenting their business plans to a selection panel.

**Table 9: Summary of startup entry criteria for incubators used in this study**

<b>Incubator</b>	<b>Type of Incubator</b>	<b>Mandate</b>	<b>Location</b>	<b>Entry criteria for the incubator programme</b>
<b>INC 1</b>	Gauteng Provincial Government through the Gauteng Growth and Development Agency SOC Ltd	Focused on advancing innovation	Science and technology park, Pretoria, South Africa Some entrepreneurs based at their own offices.	Product/service had to be innovative, and technology-based The company must have developed a future pipeline for expansion The entrepreneur was required to have networks, understand the industry and be self-sustainable as well as had a technical understanding of the product/service Required a viable business case that had demonstrated innovation and viability. Once the first sale of the innovative product or service/private sector investment had been made, may have been considered for entry into incubation programme. (MAXUM, 2010)
<b>INC 2</b>	Non-profit enterprise development programme	Focused on advancing black owned enterprises	Corporate offices, Johannesburg, South Africa. Some entrepreneurs based at their own offices.	This programme began with a pre-incubation phase which consisted of an intense training and mentoring period of three months. After this period, the founder was required to pitch to a panel that evaluated the business case and entrepreneur. If the startup was successful, they qualified to be part of the full incubation programme. (Shanduka Black Umbrellas, 2015)

#### 4.4 SAMPLING

Qualitative research customarily studies a small number of individuals in order to preserve the individuality of their analysis (Maxwell, 2013). Non-probability, purposive sampling was used to select the entrepreneurs that constituted the participants for this study. Though the non-probability sampling method is characterised by ambiguity and contains an element of subjective judgement, it enabled the study to select startups that would provide information-rich cases in order to answer the research objectives (Saunders et al., 2012). To ensure high quality, first-hand information the interviews were conducted with the founding entrepreneurs or CEOs of the startup as these were the key people involved in the initial business model development and business model innovation.

## **4.5 UNIT OF ANALYSIS**

Startups and founding entrepreneurs have historically been intrinsically linked, with entrepreneurs being viewed as a critical element in startup success (Oe & Mitsuhashi, 2013) and as the most important factor that influenced the process of business model innovation in startups (Comberg et al., 2014). However, the concept was expanded to corporate entrepreneurship and grew to include seasoned entrepreneurs. This study evaluated business model innovation in startups and was therefore concerned with startups. To ensure the initial research objectives were achieved and related back to the need for the research, the unit of analysis selected for this study was startups.

## **4.6 DATA COLLECTION METHOD**

### **4.6.1 Introduction**

Data collection in qualitative research is “non-standardised so that questions and procedures may alter and emerge during a research process that is both naturalistic and interactive.” (Saunders et al., 2012, p. 163). The use of semi-structured interviews, as selected for this study, was the primary method for data collection. This study proposed that this interview approach would elicit rich descriptions as well as permit participants an opportunity to clarify statements, build on the responses by the participants and increase the breadth of observations (Bloomberg & Volpe, 2012).

The interviews took place in a single phase over a period of three months. It was proposed to all participants that the interview would take approximately 60 minutes, but the interviews lasted between 40 and 90 minutes depending on the participant’s propensity to share their experiences. To ensure participants were well informed of the nature of this research, consent was discussed with each participant before the interview commenced and a consent form signed. All participants where face-to-face interviews took place signed the informed consent letter immediately, with the two interviews that took place on Skype, the participants sent the PDF or scanned signed consent form a few days later. An example of the letter of consent can be viewed in Appendix 1. The interviews were recorded with the explicit permission of the participants.

### **4.6.2 Interview schedule**

An interview schedule was created to guide the semi-structured interview based on the key themes uncovered in the literature review which this study aimed to address. Two frameworks

described in the literature were included in the interview guide to ensure focus upon specific areas of interest and provide clarity or guidance when the topics were discussed:

- The 4I-Framework created by Frankenberger et al. (2013) to compare the process followed by the startup
- The Business Model Canvas (Osterwalder & Pigneur, 2010) was included to guide questions regarding the components used by startups.

A consistency matrix was utilised to develop the interview guide to ensure the research questions were addressed. An example of the interview guide is can be viewed in Appendix 1.

#### **4.6.3 Pilot interviews**

Prior to commencing the formal interview sessions, a pilot testing phase was undertaken to assess the following: firstly, if the interview guide sufficiently enabled the answering of the research questions; secondly, if the terminology used would be understandable by the participants, next, to familiarise the interviewer with the questions and interview process and lastly, calculate the approximate duration for the interviews.

The first pilot interview was with a business acquaintance of the interviewer who had started their own company a few years prior. The test resulted in a few changes to the way in which questions were posed to the participant, especially with regards to the terminology used. This led to the inclusion of both the Business Model Navigator's visual description of a business model as well as the Business Model Canvas in the interview guide. This assisted with an explanation of certain concepts when required.

The second test was held with the founder of two startups. The purpose of the session was the same as discussed above. However, the changes from the first pilot phase were incorporated. This pilot allowed for further refinement of the interview questions and confirmation of the necessity to include the two visual aids in the interview guide.

Once the first three interviews of the sample were completed, new insights emerged which were incorporated prior to the remaining interviews, allowing further exploration of the identified topics. This resulted in the final interview design being less structured and which allowed for deeper exploration of the key themes identified.

## 4.7 DATA ANALYSIS

Analysing qualitative data is an interrelated and interactive set of processes since analysis occurs during and after the interview process (Miles & Huberman, 1994). All interviews were recorded, with permission from the respondent. Notes on pertinent points were taken during the interview and written on the interview guide. All interviews were recorded on an electronic device and immediately uploaded to a secure cloud storage facility to safeguard the original data. Interview notes taken during the interviews were scanned in afterwards and also uploaded to the cloud storage facility. Local backups of the data were kept as well. All interviews were then transcribed verbatim and imported into the ATLAS.ti qualitative research analysis program. In order to ensure anonymity to all participants as assured in the informed consent letter, the names of all the participants were recoded and numbered. Instead of using actual names, each of the firms' names were changed to a short description of what the company did.

Miles and Huberman suggested that “coding is analysis” (1994, p. 56) as it entails synthesising and meaningfully dissecting, whilst keeping the relationships between the parts intact. The process of data analysis for this study was both deductive and inductive (Bloomberg & Volpe, 2012). The initial categories for the conceptual framework of this study were deductively obtained through a review of the current literature, as seen in Chapter 2, surrounding business model innovation and entrepreneurship. An initial alterable coding structure was created based on the research questions proposed in Chapter 2. The alterability of the initial framework was important as it allowed testing, adapting, expanding and improvement upon existing frameworks (Fingfeld-Connett, 2014).

The raw transcript data was then assigned to relevant codes, and additional codes were created as themes or patterns emerged. The qualitative analysis software used, ATLAS.ti, allowed for simple mapping of concepts and assisted in identifying interrelated patterns. This iterative process of open coding led to continuous refinement, including merging similar themes, and ultimately the production of the final coding scheme. This type of analysis assisted in identifying themes, patterns and relationships that were key in answering the proposed questions for this study (Miles & Huberman, 1994). Additional codes were added to the initial framework of based on additional themes that emerged from the transcribed interviews and as inter-relationships were identified. The list of codes used, as extracted from ATLAS.ti, can be viewed in Appendix 2.

Thematic discovery accelerated within the first three interviews where most of the themes emerged, after which the number of novel themes that surfaced reduced significantly with every

additional interview. No new themes emerged from the last three interviews and it was therefore resolved that saturation had been attained and no additional interviews would be required.

#### **4.8 QUALITY, RELIABILITY AND VALIDITY**

To ensure an effective contribution to business and academic theory, the quality of the research design needed to be considered during the preparation, execution and analysis phases. Reliability refers to the extent to which the data could be replicated and if the data collection techniques used, would produce consistent findings if they were repeated on another occasion (Saunders et al., 2012). The value of using semi-structured face-to-face interviews in this study was the flexibility which lent itself to exploring the complexity of the topic. The assumption behind this type of qualitative research was that the circumstances that were being explored were complex and dynamic. Hence, replication of the results would be unlikely, however, this potential lack of reliability is not unusual amongst qualitative research.

Validity refers to the capacity of the research to gain access to the participants' knowledge and experience and the ability to infer meanings from the language used and whether the findings accurately reflect the position of the participant, researcher and the reader (Miles & Huberman, 1994). Semi-structured interviews, which were employed in this study, can achieve a high-level of validity due to the opportunity to clarify questions, probe meanings and explore responses and themes from a variety of angles (Saunders et al., 2012).

To reduce the potential for misinterpretation, this study employed triangulation as a process of using multiple perceptions to clarify meaning (Bloomberg & Volpe, 2012). Firstly, the history and background of each startup were investigated by evaluating their web presence and any press releases or articles published online. This provided a first glance at the startups' previous activities, including awards they had received and how they had evolved since inception. Secondly, the interviews were conducted with at least one of the initial founders or the CEO as they would have intimate knowledge of the process, challenges and reasons for decisions.

To increase validity and ensure a high degree of generalisation, startups from a variety of backgrounds, focused on different industries, were examined. To ensure generalizability, and mitigate the risk of specificity, a relationship was established between the results of this study and existing theory, which demonstrated the significance of the study to the current literature on business model innovation.

Interviewer bias was considered as non-verbal behaviour could influence how the interviewee responded (Saunders et al., 2012). To mitigate this risk, a conscious effort was made to allow respondents the freedom to explore topics with limited prompting, as guided by the interview schedule.

Yin (2015) cautioned that although the information received in the interview may be recorded as data, it was still filtered through an individual's thinking and meaning, which could result in unconscious researcher bias during the data collection process. The triangulation process discussed above was again employed to minimise this potential researcher bias.

#### **4.9 ASSUMPTIONS AND RESEARCH LIMITATIONS**

Qualitative data analysis is inherently subjective; conversely, the advantage of this method is that it offers deeper insight and the ability to establish causal relationships. Nevertheless, the research methodology had certain limitations. Despite the ease with which participants shared their experience, the nature of qualitative interviews could have led to interviewees being less inclined to share negative experiences or perceptions (Saunders et al., 2012).

Firm performance in the short term does not guarantee long-term sustainability. Due to the time limitations imposed upon this research project, it was not possible to conduct a longitudinal study to explore whether, or not, business model innovation had an influence on the long-term profitability and sustainability of the startup.

The decision was made to only select startups in the commercialisation or incubation stage of a startup incubator. As a result, an assumption was that each startup would at least have undergone one business model innovation process, which would only have been confirmed during the interview process.

Lastly, a potential limitation could have been that startup entrepreneurs may have hesitated to share experiences that would have potentially reflect negatively on them.

#### **4.10 ETHICAL CONSIDERATIONS**

Ethical conduct is a fundamental aspect of research and relevant in every aspect of this study from design, recruitment of participants, fieldwork interviews, data analysis and reporting. This study obtained ethical clearance from the ethics committee of the Gordon Institute of Business Science. A copy of the clearance certificate could be viewed in Appendix 3. Following that, both incubators were contacted to obtain permission to contact startups in their incubation (INC 1) or

commercialisation (INC 2) stages. The founding entrepreneurs of these startups were then individually contacted to gain access for an interview. Participants were informed that the information acquired through the interviews would be used only for academic purposes and that their anonymity would be ensured.

This study endeavoured not to subject participants to the risk of embarrassment, pain, or harm and ensure that participating in this study would not lead to any other material disadvantage. Participation in the study was voluntary and any participants that were not comfortable with sharing their experiences did not form part of the interview process. Only participants that signed the consent form were assimilated into the study.

#### **4.11 CONCLUSION**

This Chapter outlined the research methodology that was utilised in this research project. The research design chosen for this research project was a qualitative research approach using face-to-face semi-structured interviews. The research design included all considerations with regard to quality, reliability, validity and generalisability as well as ensured that all ethical considerations were adhered to. The research design and methodology selected enabled the research questions proposed to be answered.

## **CHAPTER 5: RESULTS**

### **5.1 INTRODUCTION**

This section presents the results and key findings obtained from 14 interviews with startups hosted at two different incubators in South Africa, using the data collection process described in Chapter 4.

The format of this section will start by describing the participants of the sample that were interviewed as well as the nature and purpose of the incubator where they were hosted to provide context to this study. The results and findings are discussed and set out according to the research questions proposed in Chapter 3.

### **5.2 DESCRIPTION PARTICIPANTS AND CONTEXT**

Entrepreneurs from 14 startups were interviewed consisting of nine startups based at INC 1 and five startups based at INC 2.

Each incubator had a unique emphasis and mandate that attracted different types of startups. INC 1 was focused on promoting innovation and technology while INC 2 focused on supporting black owned businesses and were not limited to a particular industry or product.

The distinctive type of startups hosted at the two incubators enabled this study to appraise if startups that focus on radical innovation or technology solutions have comparable or dissimilar experiences and approaches to business model innovation than startups that enter an existing competitive market.

The founding entrepreneur from each startup was interviewed and in the instance where more than one entrepreneur was involved the CEO, or MD (Chief Executive Officer or Managing Director) was interviewed. Only one interview included both founding entrepreneurs (a husband and wife team).

A further description of each incubator and the list of entrepreneurs interviewed are set out below. Three more startups from INC 2 were confirmed for interviews, but were unable to attend in the end.

#### **The Innovation Hub (INC 1)**

The head offices of INC 1 are situated in a modern, newly built science and technology office park, named the Innovation Hub, and borders a local nature reserve as well as university grounds. There

is an observable focus on innovation including the display of several banners inside and outside the building venerating well known South African innovators such as Mark Shuttleworth. In addition, fellow tenants of the office park include likeminded innovation driven companies such as the South African space agency.

The interviews were conducted either at the Innovation Hub in Pretoria or at an alternative venue such as a coffee shop if that was more convenient for the participant. Two interviews were conducted via Skype as the one startup was based in Cape Town while the other was in Morocco as one of the finalists in a global innovation award.

Each entrepreneur had at a minimum, an undergraduate qualification and varied backgrounds including engineering, town planning, auditing, dentistry, ophthalmology, medical equipment engineering and services. Every startup had developed and commercialised new, innovative products or solutions that were not yet available in the current market. Each interview included a description, and a demonstration or explanation by the entrepreneur about the solution they had developed.

### **Shanduka Black Umbrellas (INC 2)**

The second set of entrepreneurs interviewed formed part of a non-profit enterprise development incubation programme. This incubator focused on advancing black owned businesses in South Africa. All startups had completed the pre-incubation phase (3 months) and were currently in the full incubation stage, and one had just graduated.

As part of the incubation, these startups are supported with ongoing mentoring, professional services and access to office space and infrastructure available to them at reduced rates at the head office in Johannesburg. INC 2 refers to the startups that are part of the incubation programme as clients.

The head office for INC 2 is situated in a modern, recently renovated office space in a popular and upmarket business hub in Johannesburg. Besides office space, startups incubated at INC 2 have access to computers, telephones, Wi-Fi, boardrooms, a canteen area and receptionist to handle incoming calls and messages. Networking between entrepreneurs is encouraged.

The INC 2 startups interviewed offer a variety of products and solutions, including interior design, accounting services, digital marketing, event rentals and holiday club solution. The entrepreneurs hail from various backgrounds, experience and educational qualifications. These startups were all

entering an existing competitive market where several competitors already existed. These competitors ranged from large corporate firms to small startup firms similar to the participants.

Table 10 provides a list of the participants interviewed in this study.

**Table 10: List of participants interviewed**

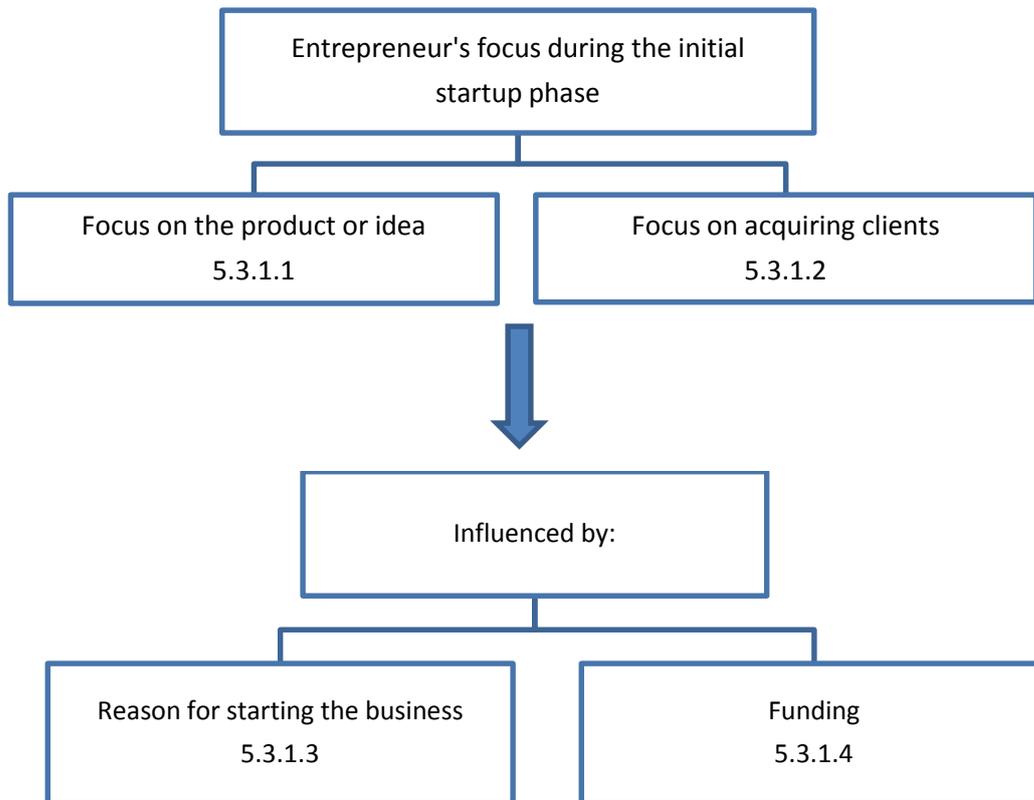
<b>Entrepreneur</b>	<b>Job Title</b>	<b>Company</b>	<b>Incubator</b>	<b>Incubation Stage</b>
Entrepreneur 1	Founder/CEO	Solutions for augmented reality	INC 1	Commercialisation
Entrepreneur 2	Founder	Solutions for health services	INC 1	Commercialisation
Entrepreneur 3	CEO	Solutions for financial services	INC 1	Commercialisation
Entrepreneur 4	CEO	Solutions for open innovation	INC 1	Commercialisation
Entrepreneur 5	Founder	Solutions for tourism	INC 1	Commercialisation
Entrepreneur 6	Founder	Solutions for public transportation	INC 1	Commercialisation
Entrepreneur 7	Founder	Solutions for education	INC 1	Commercialisation
Entrepreneur 8	Founder	Solutions for education	INC 1	Commercialisation
Entrepreneur 9	Founder	Solutions for public transportation	INC 1	Commercialisation
Entrepreneur 10	Founder/MD	Accounting services solutions	INC 2	Incubation Stage
Entrepreneur 11	Founder	Digital agency solutions	INC 2	Incubation Stage
Entrepreneur 12	Founder	Mobile rental solutions	INC 2	Incubation Stage
Entrepreneur 13 & 14	Co-Founders (husband & wife team)	Holiday club and travel solutions	INC 2	Graduation stage
Entrepreneur 15	Founder	Interior design solutions	INC 2	Incubation Stage

## 5.3 RESULTS

### 5.3.1 Research Question 1:

**During the initial startup phase, what are the key business model elements entrepreneurs mostly focus on business model innovation or product innovation?**

**Figure 6: Entrepreneur’s focus during the initial startup phase**



### 5.3.1.1 Focus on product or idea

This research question sought to determine what occupied the most significant time, financial resources and focus by entrepreneurs during the initial stages of the startup. This indicated a priority focus for the entrepreneur and was considered vital to the success of the venture. Here a distinct difference was noted between the startups from the different incubators. In technology startups based at INC 1, their priority focus was developing and refining the product or making their initial idea work. During that stage commercialising the offering or creating a unique business model was secondary. They expressed their initial focus as follows:

- “We never really had a business plan at that stage. It was more about making the idea work. I suppose my focus has always been to make something that works well on the ground, so I guess I have been very much product focussed really... And so all the money that went straight into development, did not go anywhere near into making a business model or hiring a CEO or anything like that.” Entrepreneur 2

- “So they had the idea and they built the product, and everything else was sort of an afterthought.” Entrepreneur 3
- “In most people the priority was what problem we are solving and am I going to enjoy it. I mean like it is financials later.” Entrepreneur 8

#### 5.3.1.2 Focus on acquiring clients

All startups based at INC 2 were entering an existing competitive industry stated their priority focus was on acquiring clients. Clients, especially paying clients, are an essential attribute of a successful startup as they generate revenue and profit for the company. Acquiring clients required the company to swiftly develop an initial business model to take to the market.

- “Our priority was getting clients. So I always said it wasn’t about making money, it was getting clients. And our pricing was set up that way, so I always said I would rather have 100 clients at R100 each than one client at R100 000.” Entrepreneur 10
- “A bit of all three but the last one especially, to get a client, deliver for the client and as quickly as possible, but get many clients so that at the end of the day there can be some form of revenue” Entrepreneur 14

Due to the highly competitive nature of the markets INC 2 startups were entering required the entrepreneur to effectively differentiate themselves from existing competitors signifying the need for a clearly defined value proposition.

- “...the truth is, if I go and pitch against [a competitor for an account] for the [large corporate account] account, they will beat me hands down. They have experience, they have clout.” Entrepreneur 11
- “...we started to sort of think about what we offer. You know the industry we are in is so saturated, it is a price war, every Tom, Dick and Harry leaves their employment and thinks they can run an accounting firm. And they probably can.” Entrepreneur 10

### **5.3.1.3 Reason for starting the business**

#### **5.3.1.3.1 Solving a problem**

The majority of entrepreneurs based at INC 1 stated that the sole reason for starting their business was to solve a market problem. INC 1 entrepreneurs all uncovered a market problem either having experienced it in their previous industry that they had worked in or as a consumer. Therefore, the desire to develop a solution to the experienced market problem drove INC 1 entrepreneurs to start their businesses

- “I guess the long story [for me starting the business] is it started in Swaziland but I think when I was working as a rural doctor a long time ago, in 2004 and 2005 we did not actually have a phone line at the hospital so we actually couldn’t even contact a specialist even if you wanted to you know. So it kind of put pressure on us to do our jobs and just make a plan.”  
Entrepreneur 2
- “I was a public transport planner, an engineer who kind of tried to design transport systems and I was also a commuter... And it was in that experience where I noted this massive information hole, this gap, this need for real-time alert information for commuters to know what’s going on just because my train was always delayed and late and I had very little predictability and very little, just focus on getting home on time. So I set out to try and figure out how to improve or how to solve some of that problem” Entrepreneur 6
- “When I was in university we used this software that allowed us to submit assignments and check our marks. I was just thinking; why do not schools use this? They would really benefit from using something like this. Maybe we could build something for them to use.”  
Entrepreneur 7

Entrepreneurs from INC 1 that were developing innovative new solutions started the business as they wanted to solve a problem they had identified in the market. This led to a large proportion of their initial focus being directed towards on developing and refining the product or solution or getting their idea to fruition. In contrast, most of the startups at INC 2 started the business as they wanted to work for themselves.

#### **5.3.1.3.2 Reason for starting the business was to work for themselves**

The startups that formed part of INC 2 had started their business because they wanted to work for themselves, be their own boss or do something that was meaningful to them. They had left

their previous corporate occupations owing to a variety of individual reasons including unhappiness at work, perceived limited future possibilities, a new-found passion or were of the opinion that they had reached their ceiling.

- “I think when I got to my fifth year that bug came through to say, you know what, I need to start looking at starting my own business. I was second-in-command, but I never really felt a sense of ownership because it is a family-owned business.” Entrepreneur 10
- “My history in terms of entrepreneurship is that it is that I have always wanted to be my own boss, I have always wanted to create something meaningful to me.” Entrepreneur 11

#### **5.3.1.4 The role of funding on the initial focus of entrepreneurs**

Startups based at INC 2 were more focused on getting clients that could generate revenue for their business. A key driver for the focus appeared to be profitability and self-sufficiency.

By contrast startups from INC 1 had each won, at least, one competition, as a result of the innovative nature of the solution they were offering. These competitions resulted in the startup receiving a small financial reward.

In addition to the competitions, some of the technology startups received further funding, viewed as seed funding, from their incubator or outside investors as an incentive to continue development of their product. Seed funding is an initial capital investment by investors in lieu of a stake in the business. Further, the seed funding is limited unless the entrepreneur was able to commercialise their product. Whether it was funding via competitions or seed funding, INC 1 startup focus remained on the developing the product instead of a business model to commercialise the product. The funding afforded them a less pressurised environment in which to continue developing the product.

- “So we started developing stuff in augmented reality and virtual reality because the pressure was off, we had money from the innovation... But once we got the funding it was like almost ... we can breathe now” Entrepreneur 1
- “So we were fortunate enough to be funded by [XYZ] and that allowed us to expand a lot quicker.” Entrepreneur 7
- “So we entered the Gauteng Innovation Competition in 2012, and we won. So that was when we actually got a bit of funding. So that was our first. Up until then we were like just scraping by.” Entrepreneur 8

The entrepreneurs mentioned that the funding from the incubator or the value of the award received for the competition was not unlimited and would eventually run out unless the entrepreneur was able to commercialise their innovation.

- “They have given us two rounds of funding, and you will be amazed at how quickly the money runs out.” Entrepreneur 9

#### **5.3.1.5 Conclusion: Research question 1**

The results revealed a distinct difference between the priority focus of the startups hosted at the two different incubators. Startups at INC 1 with innovative products and solutions were mostly focused on developing and refining their product or making their idea work. This was in contrast to startups at INC 2, which prioritised acquiring customers. The reason for this difference can be apportioned to the entrepreneur’s motivation for starting the business and funding received.

Innovative startups start the business as they identified a problem to solve making the product or solution their focus. Secondly, it appears the innovative nature of their solution gives them easier access to funding or the benefit of entering competitions looking for innovative products. The funding resulted in escalating their focus on the product. This appeared to lead to a reduced focus on effectively commercialising their product.

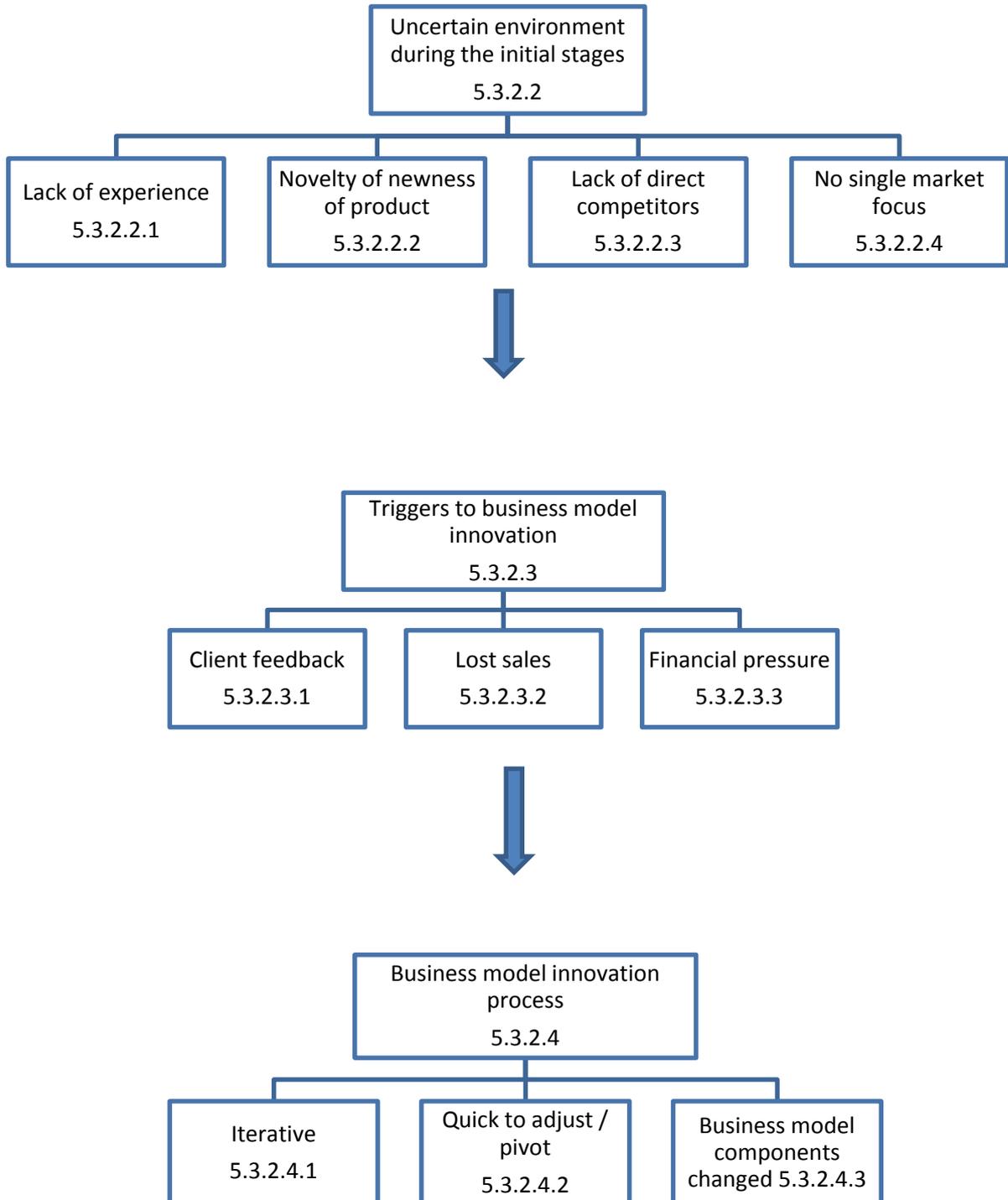
Startups entering an existing competitive industry immediately focused on acquiring clients. It appeared more challenging to gain access to funding which resulted in continuous financial pressure and necessitated their focus on revenue and acquiring clients to build a sustainable business. These entrepreneurs started the business to work for themselves, which reinforced their intention to build a sustainable business.

#### **5.3.2 Research Question 2:**

**What is the structure and process of business model innovation in startups?**

### 5.3.2.1 Results

**Figure 7: The structure and process of business model innovation in startups?**



Four themes emerged from the evaluation of the process of business model innovation in a startup. The first theme identified was the uncertain environment that startups find themselves in when they start. Participants indicated that this uncertainty was either due to a lack of knowledge and experience in running their own business or as a result of the newness of the market they were entering as the product or service did not exist. This led to a high degree of uncertainty when creating the initial business model.

The second theme that emerged was that business model innovation was as a result of a trigger or catalyst that resulted in the startup evaluating why their current business model was insufficient and deciding to innovate their business model. The trigger correspondingly had an influence on the degree of business model innovation or led to a particular component being changed to adapt to a customer need. These triggers were as a result of direct client or market feedback or indirect feedback in the form of lost sales. The loss in sales led to increased pressure on entrepreneurs, who already had stretched finances, often prompting the push towards a new business model.

The last theme that emerged regarding the process of business model innovation in startups is the iterative nature of the business model that requires continuous testing and adjusting.

While some startups found the business model innovation process simple and easy to execute, some found the process complex.

### **5.3.2.2 Uncertain environment during the initial stages**

#### **5.3.2.2.1 Lack of experience**

Startups across both incubators commented on the high degree of uncertainty when they started the business. For the majority of entrepreneurs, this was their first entrepreneurial attempt, and they had limited experience with the diverse facets involved in running a business.

Only four entrepreneurs had previously worked in the same industry in which they were now operating. Industry knowledge and experience gave these entrepreneurs an advantage as they had valuable knowledge of the target market and potentially how the market would respond to, or adopt, the new solution. However, the remaining entrepreneurs who started the business with no prior experience in that industry found the diverse facets of running a business complex. This included developing a business model, developing a value proposition for their solution and acquiring clients.

- “I have never really had any business training, I have worked for some large NGO’s and stuff but nothing really like formal.” Entrepreneur 2
- “... we thought we knew what we were doing. Quite wrong.” Entrepreneur 5
- “You see when we began it was flying off, we did not know what we were doing, off the seat of my pants as the saying goes and we did not really have a business model per se.” Entrepreneur 10

#### **5.3.2.2.2 Novelty or newness of the product or solution**

Startups from INC 1, with innovative product solutions, had an additional level of uncertainty. Besides limited entrepreneurial experience, the newness of the product contributed to a large degree of uncertainty about how the market would adopt the new solution. As a consequence, the target market and the value offered to that target market was not yet clearly defined. Neither was what customers would be prepared to pay for that value.

- “So when I am speaking to guys, and maybe from a sales perspective this is the completely wrong thing to do, but I am saying to them, guys we are a startup, we know that this can provide your company with value, we are not sure how much to charge for this, let’s work together...” Entrepreneur 1
- “You know also one of the things we have realised is that one of the hardest things to be able to say when you are trying to drive innovation is, I do not know, we are still trying to figure it out...” Entrepreneur 8

#### **5.3.2.2.3 Lack of direct competitors**

Startups from INC 1, with new innovative solutions, indicated that the lack of existing direct competitors complicated the process of developing an initial value positioning in the market. As entrepreneur 2 noted: “... when we started it up, there really wasn’t an alternative.” The newness or novelty of the product and the lack of direct competitors led to a high degree of uncertainty when creating the initial business model. The initial business model was a necessity to put the solution out to the market and test it with potential customers.

- “My approach really is to say to them, look, this is a new product, I know that it is adding value to your organisation, we need to find a price that you can still derive that value but we also get compensated for it.” Entrepreneur 1

- “I think the most important activity is cultivating early adopting customer that you can do testing with. I have access to very, like I cultivate preferred clients that I can quickly run to and bounce ideas off.” Entrepreneur 6
- “... but remember also no business model survives first contact with client intake. So things change all the time and we are changing, we keep changing.” Entrepreneur 9

#### **5.3.2.2.4 No single market focus**

Once the product was in a later stage of development, entrepreneurs identified that the product potentially had multiple applications and, therefore, new opportunities presented itself. This encouraged the founders to attempt to go into several markets at once to see which market adopts it first, before finding a foothold in any specific one. Moreover, the initiative to target additional markets, before commercial success in the first market, meant that entrepreneurs were diverting their focus from their initial target market or customer to alternatives.

- “You know initially I was looking at medical equipment, but I have realised that this works for many different kinds of industries, equipment, for instance, telecoms, cell phone base stations which are all over, even like water treatment facilities which you get in municipalities all over the country or the continent” Entrepreneur 1
- “There is no kind of barrier to enter; you do not have to buy something and wait for delivery and anything like that. So I think over the next six months that’s what we are gearing ourselves up for but across multiple specialities.” Entrepreneur 2

#### **5.3.2.3 Triggers to business model innovation**

Entrepreneurs who had previously worked in the same industry as the one they were currently operating in used their knowledge of the market to build their business model. However, it appeared that it still required testing in the market. The startups interviewed revealed that an occurrence or intervention had taken place that triggered the business model innovation process. Three main catalysts were identified by the group of startups: client feedback, lost sales and financial pressure. Other less prevalent catalysts included advice from a mentor and problems with suppliers.

### 5.3.2.3.1 Client feedback

Six startups commented that once the initial business model was tested in the market, they got feedback from potential clients, which resulted in them considering innovating their business model. This was in the form of direct feedback, where there would be direct face to face contact with clients or an email explaining their reasoning for not purchasing the product.

- “Got an email saying, we would love to do your tour but the price it seems too expensive. The first time you get it like you think, oh you know it is one client who is a bit of a Grinch, but then when it is the third email you are like, okay, something needs to be done here.”  
Entrepreneur 5
- “I spend a lot of time in front of customers and clients and potential clients and people ... and then you kind of pick up on a conversation here or a comment there or that an opportunity presents itself. Then you lead into it as it were, you explore it.” Entrepreneur 6
- “And what we found is that a lot of the times when we went around and pitched the idea, I mean we went everywhere, we got turned down so many times, it is not even funny.”  
Entrepreneur 9

### 5.3.2.3.2 Lost deals

Direct client feedback was a straightforward way to get the initial response from the market. The direct nature of the feedback required less analysis by the startups of what needed to change. Lost deals were another trigger that pushed startups to evaluate their current business model and then start going through a business model innovation process. However, this was not direct feedback and therefore it was unclear to the entrepreneurs precisely what changes were required to reverse the lost sales. Entrepreneurs found it more challenging to interpret and therefore understand the appropriate way to respond.

- “We lost deals. We lost. We sat and we could not explain why we were losing. We had to look at each other and go, look man, I am tired of putting together these brilliant briefs and proposals and no result.” Entrepreneur 11
- “And so I would feel like I am knocking my head against a wall here and I wasn’t seeing where the real barrier was” Entrepreneur 1

### 5.3.2.3.3 Financial pressure

Lost sales, or lack of response from the market, resulted in little or no revenue coming into the startup. This resulted in increased financial pressure on the new venture. Financial pressure led to

the startup performing an introspective evaluation of their current business model. The nature of this had a material effect on the potential future of the business.

- “A month afterwards the finances took a real dive. So the pressure was on and the truth was it was either we were going to go out of business or make the changes.” Entrepreneur 11
- “We lost money in the first year... in essence we lost money because we did not know how to quote. We sometimes heavily negotiated to get the job because we needed to get busy... So it was very difficult to really decide what we offer differently.” Entrepreneur 10

This section indicated that each startup had completed at least one business model innovation process since the development and introduction of their initial business model. This business model innovation process was typically triggered by a specific occurrence which resulted in the startup initiating the change. The key triggers identified by startups in this study were direct client feedback, lost sales and increased financial pressure.

#### **5.3.2.4 Process of business model innovation in startups**

In this study, all the startups interviewed had undergone at least one instance where they had to change their current business model. As discussed in the previous section, this process was triggered by a specific event. This trigger became the focus area for change in the business model. When specifically asked what process they followed most of the entrepreneurs interviewed provided only broad answers that related to their experience or frustrations. There appeared to be no uniformed approach followed by the entrepreneurs. Instead, the process was response driven and depended on the experience of the entrepreneur and the urgency of the change required.

Despite it emerging that no specific business model innovation process was followed by the majority of the entrepreneurs, when shown the Four-step process suggested by Frankenberger et al. (2013) which formed part of the interview guide, two entrepreneurs agreed that they went through a similar process, although less structured and possibly at a faster pace:

- “Perfecto, to the T” Entrepreneur 3
- “I would have; this [model] summarises completely what my expectation and every business entrepreneur would go through those steps irrespective of whether they actually acknowledge that they’ve gone through those steps.” Entrepreneur 4

One founder remarked that the process was complex and frustrating, and that there was an initial disagreement between the founding entrepreneurs:

- “No, it was not easy. First we went about it and said, okay, let’s go and try and draft up how we are going to acquire clients. We had a difference of opinion there. Okay. And then we had to go back to the drawing board.” Entrepreneur 11

One entrepreneur followed a very structured approach, which they had refined and started using not only for business model innovation but for new business ideas as well:

- “I will take out a Business Model Canvas, and I will sketch it out using the Business Model Canvas, the different components. I will have a discussion with my tech team to see how possible things are and how quickly you can do it and what is needed and what the risks are. I have access to ... very, like I cultivate preferred clients that I can quickly run to and bounce ideas off, we also have different technology partners that have expertise in. Then I draw up a financial model that kind of makes me understand the unit economics of individual pricing, individual service, individual cost of delivering that service, the way that people buy and the cost of selling to them in the format that they buy and the staffing that is required, so I can have an understanding of the unit economics of a sale. And then it is a case of testing those models and assumptions and that audience.” Entrepreneur 6

#### **5.3.2.4.1 Iterative nature of the business model in startups**

The startups explained that developing or innovating a business model was an iterative process and that their business model was constantly evolving. Once a new business model had been created it required them to test it in the market and then it adjust based on the feedback received. As discussed in section 5.3.1.1, technology entrepreneurs were mostly product focused and entrepreneurs entering an existing competitive industry were focused on the acquisition of clients. The majority of entrepreneurs were not proactively focused on developing a business model, but rather business model innovation was in response to specific triggers.

- “We transitioned through three business models [since we started]; we are on our third one now.” Entrepreneur 6
- “So it did take a while to try and make a business model that would possibly work.” Entrepreneur 2
- “In that first of all realising that it is a – because remember we did it first time because we first did it and then we realised it is actually a dual-sided model so we have to redo it. And

then when you redo it then you realise okay, no, then you have to choose then which business model do you execute on first and then how do you stagger it?” Entrepreneur 9

### 5.3.2.4.2 Pivoting of business models in startups

The flexible nature of a startup lends itself to being able to make changes quickly and consistently until the correct model is found. This applied to some of the startups interviewed:

- “That is the beauty about being a small company where you are able to actually sit down and make a decision and just move forward very quickly.” Entrepreneur 5
- “And so we have started and shut down numerous initiatives based on customer feedback and that fundamental question is, how will they pay for it.” Entrepreneur 6

### 5.3.2.4.3 Business model components changed

All INC 1 and INC 2 startups interviewed had undergone at least one business model innovation process since their initial business model was created. However, some had already undergone a subsequent business model innovation process post their first iteration.

This section assessed the specific business model components that startups altered during the business model innovation process. Using the four components identified by St Gallen (Gassman et al., 2014) shown in Figure 9, this section outlines which components the startups changed for each of the business model innovation iterations completed.

The summary below, outlined in Table 11 does not include their initial business model, but only the iterations since the initial model was developed, and which components of the business model were innovated.

**Figure 8: Key components that form the focus points of business model innovation?**

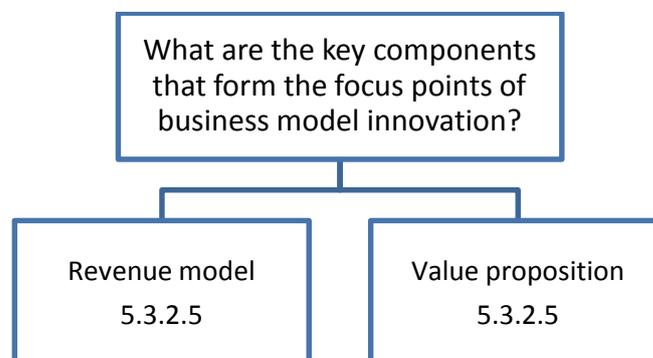


Figure 9: Business model components (Gassman et al., 2014)

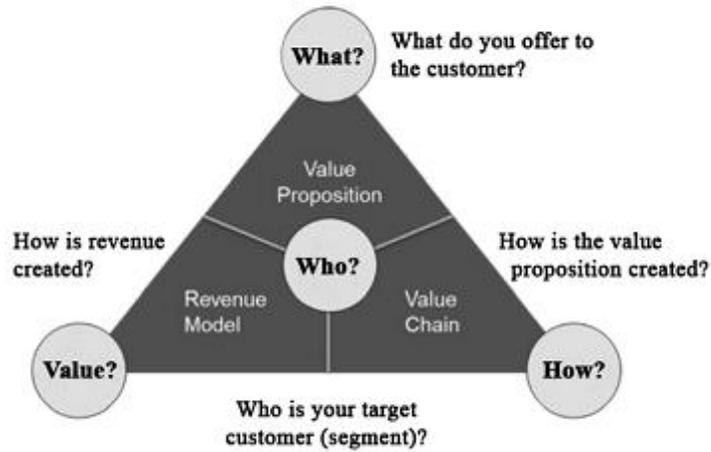


Table 11: Business model components changed

Company	Business model innovation iterations	Components changed
Solutions for augmented reality	First iteration	Revenue model [R]
	Second iteration	Value proposition [V] Value Chain [VC]
Solutions for health services	First iteration	Target customer segment [C] Value proposition [V] Revenue model [R]
Solutions for financial services	First iteration	Revenue model [R] Value proposition [V]
Solutions for open innovation	First iteration	Revenue model [R] How value is created [H]
Solutions for tourism	First iteration	Revenue model [R] How value is created [H]
Solutions for public transportation	First iteration	Revenue model [R] How value is created [H]
	Second iteration	Revenue model [R] How value is created [H] Who is the target market [C]
Solutions for education	First iteration	Revenue model [R] Value proposition [V]
Solutions for education	First iteration	Target customer segment [C] Revenue model [R]

Company	Business model innovation iterations	Components changed
		Value proposition [V]
	Second iteration	Target customer segment [C] Revenue model [R] How value is created [H]
Solutions for public transportation	First iteration	Target customer segment [C] Revenue model [R] How value is created [H]
	Second iteration	How value is created [H]
Accounting services solutions	First iteration	Value proposition [V] Revenue model [R]
Digital agency solutions	First iteration	Target customer segment [C] Revenue model [R] Value proposition [V] Value chain [VC]
Mobile rental solutions	First iteration	Revenue model [R] How value is created [H] Value chain [VC]
Holiday club and travel solutions	First iteration	Revenue model [R] Value proposition [V]
Interior and event design solutions	First iteration	Target customer segment [C] Value proposition [V]
	Second iteration	Target customer segment [C] Value proposition [V]

The frequency analysis results from Table 11 are summarised as followed:

Business model component	Number of times changed
Revenue model [R]	15
Value proposition [V]	10
How value is created [H]	8
Target customer segment [C]	8
Value chain [VC]	3

### 5.3.2.5 Revenue model

The summary above indicated the business model components changed every time the startup revised their business model. Based on this summary of components changed, two components appear to be the most prevalent components changed by the number of total iterations undertaken by the startups. The nature of the change in how revenue was created varied and was dependant on the specific industry the startup was in. Examples included converting from charging per hour for services to a subscription model or to charging per use instead of an annual licence fee.

- “I have got this business model where I need technicians in remote areas, would I be able to use your guys to then go into say hospitals? So that was the initial model, it was an hourly rate that you charged the person... but when we called them they were like, no they are busy, they can't go out. Because it was a headache trying to get people that you could rely on in remote areas, then I had to change the business model” Entrepreneur 1
- “The first model was okay we will keep all the advertising; you do not pay us. The second model is you pay us and we will give you some revenue shares... So their investment is upfront now but it is recouped very quickly.” Entrepreneur 6

### 5.3.2.6 Value proposition

The second most popular component change made by startups was changing the value proposition. The unique nature of these innovative solutions means they have the ability to easily adjust and find a unique, and inimitable method for creating value.

- “I then try and look at it and go, what is the buyer personas mind-set. Like if I am walking in am I saving him money, am I making him more money, am I making him look good to his boss, am I making him look good to his customer? What is his motivation to even listen to me? And that to me has been the most important process in everything, is what are the hooks in a buyer that you can hook into, in order to get the outcome, you want?” Entrepreneur 6

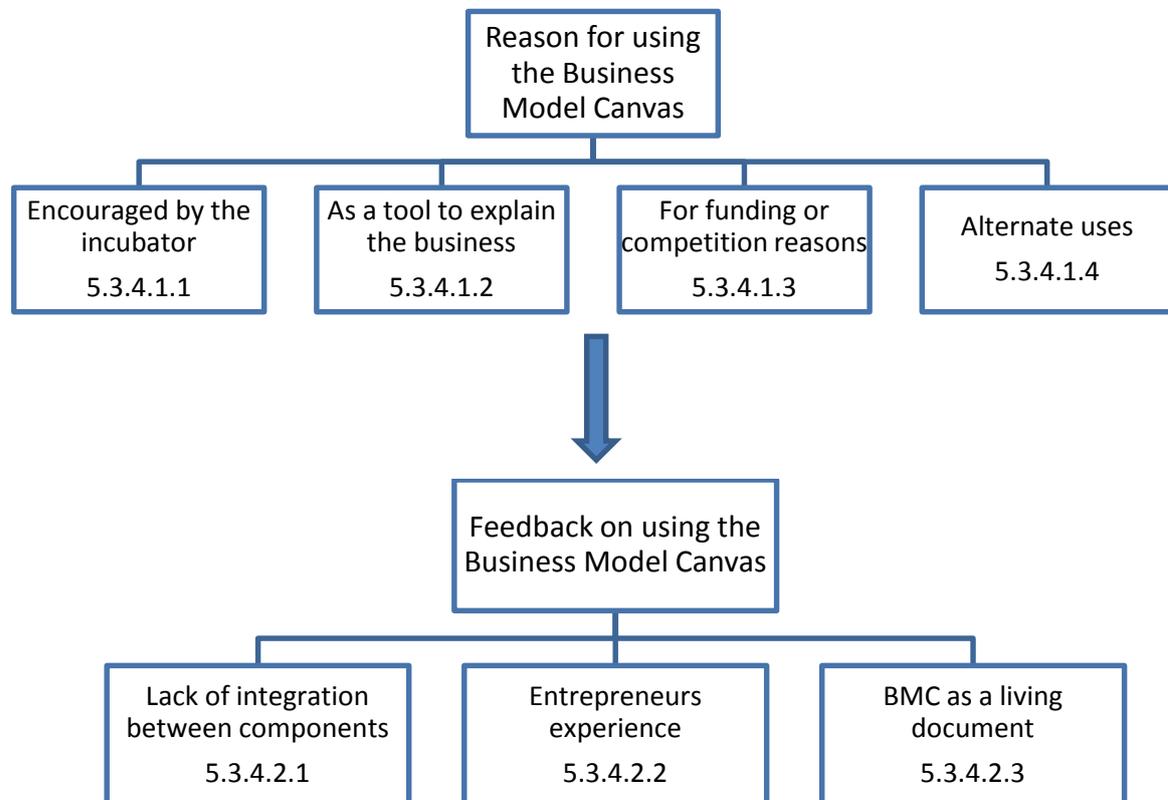
The results indicated that at least two business model components changed at every iteration of the business model. Two components appear to be the most prevalent components changed: the revenue model and how value is created. These components link to the triggers of business model innovation identified in section 5.3.2.3. It appears that changes were in response to triggers and not as a result of proactive attempts to identify additional market opportunities.

### **5.3.3 Research Question 3:**

#### **Do startups use business model development frameworks when creating their business model?**

All (100%) of the startups interviewed had used the Business Model Canvas at least once during their initial startup phase. However, only two entrepreneurs had used it off their accord. One used it as it was the first option suggested when using an internet search engine and the entrepreneur was introduced to the Business Model Canvas when attending a startup training course. There was a strong drive from both of the incubators that the startups complete the Business Model Canvas as part of their initial application and incubation stage. This process involved guidance and mentoring including questioning the entrepreneurs on some of the assumptions made during the process. However, some startups admitted the only reason they used the suggested model was to be able to get access to funding. This section also looked at the feedback or experience the startups had when first using the Business Model Canvas. Despite all entrepreneurs using the Business Model Canvas during their initial stages, only two entrepreneurs used it for business model innovation.

**Figure 10: Do startups use frameworks for business model development**



### 5.3.3.1 Reason for using the Business Model Canvas

#### 5.3.3.1.1 Business Model Canvas encouraged by the incubator

Entrepreneurs confided that the reason they used the Business Model Canvas was to develop a business model was as a result of it being a requirement by the incubator. For startups hosted at the enterprise development incubator, it formed part of the initial six-week training and pre-incubation stage and included a presentation of the business model and Business Model Canvas to a panel. For startups hosted at the innovation incubator, it formed part of their initial training and guidance by mentors supplied by the incubator. The startups were given a blank canvas (Figure 3) and asked to complete it, without reading the book by Osterwalder & Pigneur (2010) upon which it was based. They were then required to present it to trainers, mentors or a panel of judges. This process involved guidance and mentoring including questioning the entrepreneurs on some of the assumptions made during the process.

- “In the early concept development phases, the Business Model Canvas gives you the ability to articulate what business you are in. All of the key elements of that business. So, we felt it is a great tool to get the entrepreneur to understand the process between working on your concept, to then making it, putting a stake in the ground to say here’s where my business is and this is how I’m going to manage the operations of my business.” Entrepreneur 4
- “Yes, they [INC 2] actually taught us how to do the Business Model Canvas and most of our time we were attending workshops and seminars.” Entrepreneur 12
- “So all these startups, entrepreneurs, we would all attend this business model clinic and [DEF] taught us the Business Model Canvas.” Entrepreneur 15
- “...we did not really have a business model *per se*. I think it was more shaped when we started coming to [INC 2] for incubation because then they insisted on a business plan. I had a business plan, I always say I had it in my head, like a lot of people do, but to write it down on paper was always the hardest thing. So we never really had a defined business model until we came here” Entrepreneur 10

#### **5.3.3.1.2 Business Model Canvas used for explaining the business**

Furthermore, the Business Model Canvas was used as communications and presentation tool to explain the business to the incubator, investors or when entering a competition.

- “All these judges have to look at like 34 business models in like a space of three days and interrogating every single one. If they aren’t done in a vaguely similar format, it is really hard for them to know what you are trying to do.” Entrepreneur 2
- “Yes, I think in a startup, this is really just my experience, I do not know if it is typical but I mean things do not happen in a linear fashion, and there is no real textbook for it because every startup seems to be so different. But I think the thing about the Canvas, at least, it helps to explain your business to someone, and you can compare it with someone else and get ideas from them in a similar kind of framework. Otherwise, you talk past each other I think.” Entrepreneur 4

#### **5.3.3.1.3 Business Model Canvas used to get funding**

One entrepreneur commented that the sole reason he utilised the framework was due to it being a requirement for funding purposes or when entering a competition as it was a universal tool for explaining the business in a structured and consistent manner.

- “To be perfectly honest we used the Business Model Canvas for a bunch of funding applications which luckily were successful. But again my whole focus was on the product and I just wanted to get money for the product... I saw it as just like filling in an application form rather than actually taking it too seriously. I did not even refer to it, if you know what I mean.”

Entrepreneur 2

#### **5.3.3.1.4 Alternative uses for the Business Model Canvas**

One startup not only used the Business Model Canvas to develop their business model, but completed the Canvas for their competitors in order to understand everything about their business models. This allowed them to evaluate the best way to compete.

- “I think what I have done in the past is I have done Business Model Canvasses for my competitors, for myself, in order to understand what it is that they are doing and where they are doing it and what they are about.” Entrepreneur 6

#### **5.3.3.2 Feedback on using the Business Model Canvas**

##### **5.3.3.2.1 Lack of integration between the components**

One limitation that was indicated by two of the startups was that the Business Model Canvas showed the nine components, but did not demonstrate the integration of the components and how they impacted upon one another. One CEO gave quite a detailed explanation of this element of interaction:

- “I think my pain with it was that it seems as if de-couples everything and for me personally there is a greater overlap between the concepts. You can’t segregate these items into different little blocks because they are all, well maybe if I had some time to prepare and come up with a nice concise answer. But my point is just that I feel that it is multi-levelled right, so this is kind of like a 2-D thing, but it should actually have a 3-D or a 4-D, it should be this speaks to that, and this is how this component affects that one and if you pull this lever then that is going to happen. It just feels a little disconnected to be honest. And it is sort of a, it is static right, so it is a once-off snapshot, so if things change it is redundant. I do not know; I did not like it much.” Entrepreneur 3

Another entrepreneur confided that although he completed the Business Model Canvas he did not find the exercise pulled through to running the business. He mentioned that the business model worked on paper, but in his experience reality was significantly different.

- “So I spent time sitting with him and we went through the exercise and yes, everything was fine on paper from that perspective.” Entrepreneur 1

#### **5.3.3.2.2 Entrepreneurs’ experience with the Business Model Canvas**

The experience of using the Business Model Canvas the first time varied among the startups interviewed. Some users found it quite complex and unsure how to approach it. This was seen in some of their initial responses:

- “I did not know how to do it. It definitely helped in the end but I did not understand it in the beginning.” Entrepreneur 10
- “So I did that business model Canvas thing, I wasn’t a big fan.” Entrepreneur 2
- “The whole thing hey, it was tough. I do not want to lie to you, the whole thing was tough.” Entrepreneur 9
- “I think it was difficult for me. Sometimes you do not know what the key partners are, you know, or key resources, but they did explain to us and then we had to take what we know as they were explaining this, to say okay, who is your key partner? This is someone who does 1, 2, 3. Then we put those in there in that block, ja. It was a bit difficult initially but as we were doing it then it opened a few of the things that we did not know. What were your value propositions, at that time we did not know what was a value proposition.” Entrepreneur 14

Other startups found the tool simple and useful guiding their thoughts, assumptions and indicating items that they might have omitted in their thinking. Some entrepreneurs admitted that the initial business plan was mostly in their head, so the process of completing the canvas forced them to get it on paper.

- Yes, I like the fact that it is fast, easy, it allows you to not overlook anything because if you haven’t considered like customer relationships or channels or distribution or partners, it is there in a block and it is empty. So it very quickly allows you to start thinking things through, and there are no deficiencies in your assumptions if you can answer every block immediately.” Entrepreneur 6

- “Yes, we used the Business Model Canvas... It is definitely a good model because we are able to question and reflect as well, and that is what I really enjoyed about the Business Model Canvas. We have done it quite a bit here and even before.” Entrepreneur 5
- “I thought, oh this is great because it sometimes it is making these broad claims but the Business Model Canvas really helps you focus and you can break down and dissect every aspect of your business and what you are selling, what your services are, what is important, what do you have to help you reach this? I like, it is just simplifying.” Entrepreneur 15
- “As a general purpose tool, I think it is a fantastic simplified tool that any entrepreneur can pick up and use for just about any specific business idea but I think the opportunity and maybe this is in the consulting space, is to take off that and build on top of that, a very specific tool that talks to a very specific industry.” Entrepreneur 4

### **5.3.3.2.3 The Business Model Canvas as a living document**

Startups already remarked earlier that their business model was constantly evolving. This study evaluated if the Business Model Canvas was used to facilitate these evolutionary iterations or if it was only used during the initial formulation. The majority of startups used the model as part of their initial business model development process; only two used the canvas to assist with business model innovation; however, three startups had embraced the Business Model Canvas as a living document.

- “The thing that I do, which I think makes a difference is, I keep that really up to date and I review it all the time and it is not just something we do as a brainstorming exercise to communicate the idea, it is an ongoing repetitive process for every potential revenue stream. So it is a living document at all times. So we print out and we stick in on the wall, we write on it, we scratch it, in fact I have got our business model on a white board in my office, which is quite funny. I will send you a picture. Basically, what we then do is we put it on Google docs as a PowerPoint, I have got a PowerPoint template or a, yes, I think it is a PowerPoint template or a graphic template on Google docs, and then we can collaborate on.” Entrepreneur 6
- “It is always good to revisit it, constantly. It is one of those, I do not think it is one you do once off and leave, and you have to constantly relook at it. So it is definitely a good model because we are able to question and reflect as well, and that is what I really enjoyed about the business model, Canvas.” Entrepreneur 5

The entrepreneur who provided solutions for open innovation had worked with several startups and made the use of the Business Model Canvas not only compulsory but encouraged its use as a living document that should constantly be reviewed, questioned and edited.

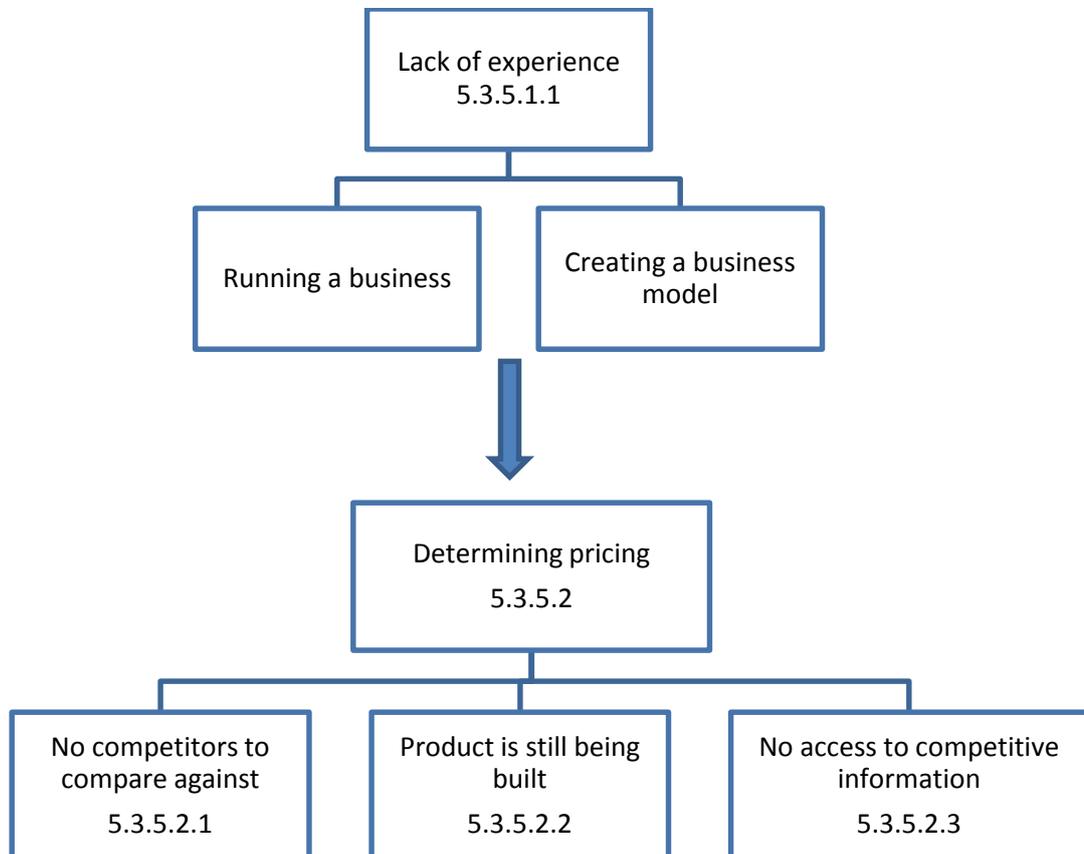
- “Most of our entrepreneurs, we say to them you must have your Business Model Canvas printed out on an A3 piece of paper, and it must have scratches around market segments, value proposition because your concept development phase is about scratching out all the ones that do not work because you start off with 25 value propositions you think you can offer and 15 market segments you think you can address and you know, all these cost drivers and key activities etcetera. But as you work through it you actually cancel out because you feel like, I’ve explored this and this doesn’t work and this is not, and that final Business Model Canvas, with all its scratchings, is the one that you want to translate into your business plan when you are now ready to commercialise. So, we felt it is a great tool to get the entrepreneur to understand the process between working on your concept, to then making it, putting a stake in the ground to say here’s where my business is, and this is how I’m going to manage the operations of my business.” Entrepreneur 4

All startups used the Business Model Canvas at some stage during their initial phases of starting the business. Some entrepreneurs found the process complicated, but most agree it forced them to consider all components when developing their business model. However, most entrepreneurs only used it as a once-off exercise to develop or present their initial business model. Only two used the Business Model Canvas for innovating their business models after the initial development.

### 5.3.4 Research Question 4:

**What are the challenges startups face with business model innovation?**

**Figure 11: Challenges startups face with business model innovation**



#### 5.3.4.1.1 Lack of experience

The entrepreneurs in the study come from a variety of backgrounds, qualifications and experience, but for the majority it was their first attempt at starting and running a business. For most of them, this was the first time they had to develop or innovate a business model.

- “And then a friend of mine who is actually one of the technology transfer persons at a University, she is a friend of mine, so she went through it [the Business Model Canvas] and just tore it apart. She said this is not a business model; you are writing a research project, but that was my background.” Entrepreneur 2
- “There’s a lack between your aspirations and the bottom line.” Entrepreneur 11
- “We are kind of winging it...” Entrepreneur 1
- “Not all of us come here with a degree to run a business.” Entrepreneur 3

### 5.3.4.2 Determining pricing

Startups at INC 1 and INC 2 indicated that one of their biggest challenges with business model innovation was determining the correct pricing for their product or solution. This applied to 9 out of 14 startups.

#### 5.3.4.2.1 No competitors to compare against

Six startups indicated their biggest challenge with business model innovation was determining the correct pricing for their product or solution. Startups at INC 1 that were introducing new innovative solutions to the market indicated that lack of competitors in their potential market resulted in the inability to compare or position their product from a pricing perspective

- “Like how do you price for something that you cannot really benchmark, like with an identical product ... are we pitching at the right pricing, is it too low, and is it too high? ...Yes, pricing is still an issue. It is not yet solved. Pricing is a tough one because it fluctuates, it also depends on who you bring on board, how you structure it and the feedback from the client.”  
Entrepreneur 8
- “I mean when we started it up there really wasn’t an alternative.” Entrepreneur 2

#### 5.3.4.2.2 Product is still being built

Besides the lack of competitors to compare the product against the innovative and emerging nature of several of the products meant that while deciding on the correct pricing, the startup was still in the process of developing and building the product itself.

- “And in the meantime we were trying to develop stuff and waiting for the [ABC], so there wasn’t really a product yet but we were still trying to figure out how do we charge.”  
Entrepreneur 2
- “So it is pricing. I think I asked a lot of people and friends to help me with how to price it. Because the worst thing you can do is leave money on the table, so it was definitely pricing and just to understand how much a school would be willing to pay for that.” Entrepreneur 7
- “So the difficult thing for us is okay, this service is a new service sort of. Traditionally how it is done is ... But now it is done online, so they do have another online system, like a new online system that they recently launched, but it does not have the kind of reach that a customised product like ours would have.” Entrepreneur 8

### 5.3.4.2.3 Access to competitive information

Startups that were entering an existing competitive market environment indicated that access to information on existing competitive products including the price compared against value offered was a challenge. This was an important step as knowledge of their competitors pricing and value proposition would assist them in creating a distinctive competitive position for their product. This included a unique value proposition and the revenue model that would accurately capture that value. However, their experience was that access to that information was not easy to get.

- “I think the main thing was actually just to get our competitors pricing. They were very guarded.” Entrepreneur 3
- “We had no friends in the industry, some of the people we asked thought we were trying to steal their business, so no-one was forthcoming with the information about how to do it.” Entrepreneur 10

Startups indicated that determining pricing was a challenge with business model innovation. This was either due to the innovative nature of the solution, which resulted in there not being any direct competitors to benchmark against or as a result of not having access to competitive information to price and position the product against. It would appear that part of the challenge, though not directly mentioned was that startups did not truly understand their value proposition to customers or what problem they were solving, which made pricing more complicated.

## 5.4 CONCLUSION ON RESULTS

The results from the five research questions posed in Chapter 3 have generated interesting results that support existing literature on entrepreneurship and business model innovation. In addition, unique new insights emerged that provide deeper insights into the emerging field of business model innovation by startups. The findings are discussed in Chapter 6.

## **CHAPTER 6: DISCUSSION OF RESULTS**

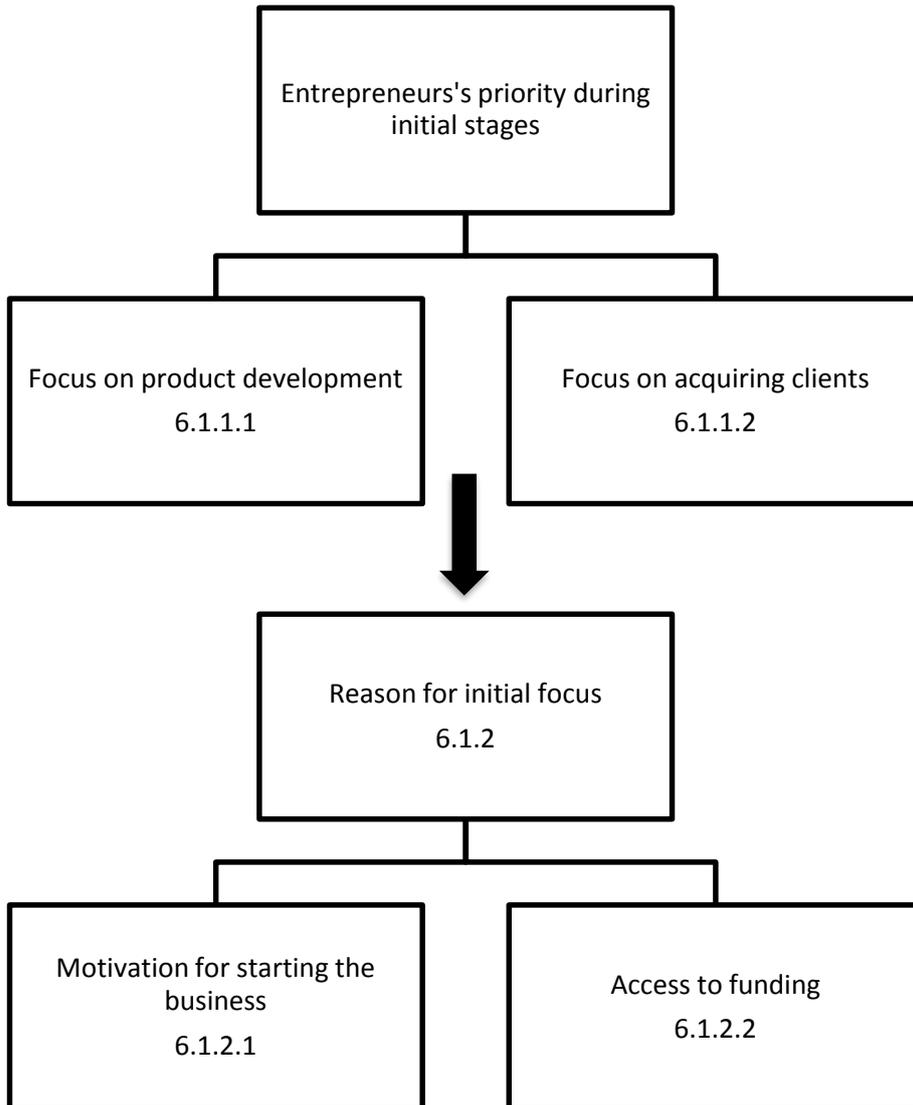
The purpose of this study was to explore, with a sample of South African entrepreneurs, the process, elements and challenges of business model innovation in startups. This study believed that a better understanding of this phenomenon would provide a more informed perspective on how startups approach business model innovation including their challenges and the tools they currently use to assist them. Based on an evaluation of the current literature, five research questions were proposed. This Chapter presents the key findings obtained from 15 interviews with entrepreneurs from startups going through the incubation stage at two different startup incubators. During the data coding and analysis process, the data was aggregated and refined to provide the required insight. This Chapter is organised according to the four research questions posed in Chapter 3.

## 6.1 RESEARCH QUESTION 1:

During the initial startup phase, what are the key business model elements entrepreneurs mostly focus on?

### 6.1.1 Entrepreneurs' priority during initial phases

**Figure 12: Entrepreneur's initial focus in startups**



#### 6.1.1.1 **Technology startups (INC 1) tend to focus on product development instead of business model innovation**

This research question sought to determine what occupied the most significant time, resources and focus attention from the entrepreneurs during the initial stages of the startup. The amount

of time, resources and focus invested in that particular function signified that it required a priority focus from the entrepreneur and could therefore potentially be considered an important aspect by entrepreneurs to ensure the attainment of new venture success. A distinct difference was noted between the startups from the INC 1 and INC 2. In startups with radical innovation, a significant amount of time and focus was spent during the initial phases on building and refining the product or making their initial idea work.

Technology entrepreneurs predominantly allocated their time, resources and focus on developing and refining the product. This is supported by (Trimi & Berbegal-Mirabent, 2012) who intimate that entrepreneurs are mainly focused on developing the product. In support of this, this study refers to the literature discussed in section 2.3.1, which evaluated startups and their risk of failure. One of the main reasons startups fail is the inability to commercialise their innovation (DaSilva & Trkman, 2014; Morris et al., 2005; Paradkar et al., 2015; Teece, 2010). Business models are regarded as an important means to commercialise innovations (Chesbrough, 2010; Schneider & Spieth, 2013; Teece, 2010).

Despite this theoretical position, the results suggest that product development remained a priority focus of technology entrepreneurs instead of developing a business model. Startups at INC 1, therefore, did not spend enough time taking steps towards commercialising the innovation. In addition, the strong focus on the product could potentially result in entrepreneurs missing opportunities arising outside or away from the product.

Business model innovation is linked to new venture performance as it provides startups with a unique competitive advantage that competitors find difficult to replicate (Chesbrough, 2010; Frankenberger et al., 2013; Gassman et al., 2014; Teece, 2010; Zott et al., 2011;). Despite this, this study found that entrepreneurs who were introducing radically new solutions focused more on product development than business model innovation.

As discussed in section 2.5.2 radical innovation refers to a high degree of newness, impact factor, new knowledge contributed or effect of the innovation on the market (Groenewegen & De Langen, 2012; Souto, 2015). All the startups based INC 1 were in the process of introducing solutions to the market that were solving a problem faced by consumers that were not being addressed at the time. Groenewegen and De Langen (2012) and Teece (2010) suggest that this type of innovation presents unique challenges to including high R&D costs and a degree of uncertainty of the response of the potential market. Despite these challenges, Trimi and Berbegal-Mirabent, (2012) propose that radical innovation has the potential to give a firm a first mover

advantage, which is described as creating a competitive advantage as a consequence of being first to market with a new product or service. It did indeed appear that startups at INC 1 were driven by the potential to be first to market, with the assumption that being first to market would automatically lead to sustained profits (Baden-Fuller & Haefliger, 2013). The risk associated with the assumption is that another competitor can easily sidestep or copy the innovation (Morris L. , 2009; Groenewegen & De Langen, 2012).

The literature would suggest that entrepreneurs should recognise that aside from being first to market with a new technological innovation that to profit from the innovation, it needs to provide benefits that consumers distinguish as valuable (Teece, 2010; Paradkar et al., 2015) as discussed in section 2.5.1. This compels startups to increase their focus on the needs of the customer and clearly understand how they provide value, thereby ensuring their continued product focus does not stray from a customer's needs.

Secondly, that technological innovation by itself has no value unless its commercialised through an appropriate business model (Chesbrough, 2010; Teece, 2010). Continued focus on product development, instead of effectively commercialising the product, could potentially risk the long term sustainability of the venture.

#### **6.1.1.2 Startups entering existing competitive markets (INC 2) focus on getting clients**

Startups based at INC 2, the enterprise development incubator, consisted of entrepreneurs who had entered an existing competitive market, where several competitors were already incumbent ranging from large corporate firms to small enterprises similar to the startup.

The study revealed that INC 2 entrepreneurs spent their initial time, resources and focus on acquiring clients. Acquiring clients was an essential focus point during the early stages to generate revenue as soon as possible. These startups were motivated by extreme financial pressure from the inception of the business, as it was tougher to acquire seed funding for non-innovative solutions or get funding by winning competitions for innovation compared to the technology entrepreneurs. The highly competitive environment required the startup to differentiate themselves in the market. However their biggest challenge was to develop unique value proposition to effectively compete. Entrepreneurs found this aspect difficult as their reason for starting the business was driven by being an entrepreneur and not as a result of solving a unique problem for a particular target market. Their primary focus of getting clients resulted in entrepreneurs pursuing every opportunity that presented itself in pursuit of revenue and in doing

so spent less time on developing a unique business model that could effectively differentiate themselves in the market.

The literature reviewed in Chapter 2.3 denotes that business model innovation provides startups with a unique opportunity to differentiate themselves in the market and provide a unique competitive advantage (Chesbrough, 2010; Frankenberger et al., 2013; Gassman et al., 2014; Teece, 2010). Despite the potential benefit, startups entering an existing competitive market did not focus on business model innovation during the initial stages of starting the business. This is supported by Kesting and Günzel-Jensen (2015) who propose that SME's (Small Medium Enterprises) are absorbed in the day to day running of the business and fail to look at business model innovation as an opportunity to differentiate themselves from the market. This potentially places their long term sustainability and profits at risk due to missed opportunities (Kesting & Günzel-Jensen, 2015).

The data thus contributes to current literature in confirming that business model innovation is not a priority for startups entering an existing competitive market. However, the results revealed that startups continually faced challenges to differentiate themselves in a highly competitive market which negatively influenced their ability to generate revenue. Continuing to neglect the potential benefit of business model innovation could negatively impact the long term sustainability of the firm.

## **6.1.2 The reason for initial focus**

### **6.1.2.1 Initial focus linked to the reason for starting the business**

#### **INC 1:**

This study found there was a strong connection between the reason the entrepreneurs started the business and their initial emphasis. The majority of the technology startups based at INC 1 had started the business as they identified a problem that was not currently being solved and started the business around a product or solution to solve that problem.

This supports the statement by Moogk (2012) that suggest that startups emerge around a vision that a product or solution that solves an explicit or urgent customer problem will be embraced by the market. In a longitudinal study Birley and Westhead (1994), section 2.2.3, evaluated the reasons entrepreneurs started new ventures, but conclude that once they have started the new venture it has minimal influence on the growth of the new venture. Hechavarri et al. (2012) propose that nascent entrepreneurs' motivation for starting the business influences the likelihood

of continuing once the business has been started. Limited academic research has since been completed to expand or disprove the statement by Birley and Westhead (1994). This study finds that the reason entrepreneurs start the business influences at their priorities during the early stages of a new venture. This theme provides new insight that brings attention to technology startups that start companies that solve a unique and new problem.

## **INC 2:**

In contrast, the motivation for starting the business by INC 2 startups was as a result of wanting to work for themselves, be their own boss or do something that was meaningful to them leaving corporate employment due to personal reasons. These startups appeared to have limited access to funding which resulted in financial pressure from the time of the business inception. As a result, entrepreneurs immediately focused on acquiring clients.

The initial priority of acquiring paying clients provided a positive focus on generating revenue for the business. However, entrepreneurs complained that they were facing intense competition from established firms and other small startups in their attempt to acquire clients. They identified the need for differentiating themselves from their competitors by providing a unique value proposition, but failed to look at business model innovation as a tool to create competitive advantage as suggested by Chesbrough (2010), Frankenberger et al. (2013), Gassman et al., (2014) and Teece (2010) discussed in section 2.6.2. Ironically, the pressure to address the financial demands of the business through client acquisition, has led to the failure to respond to the potential benefit of business model innovation which could lead to increased financial pressure and influence the long term sustainability of the new venture.

### **6.1.2.2 Influence of access to funding on startup priority**

The results show that funding appeared to influence the initial focus by startups from INC 1 and INC 2. INC 1 startups have additional opportunities to receive funding due to the innovative nature of their product. When technology startups received funding, either in the form of seed funding or winning competitions, it reinforced their product focus instead of developing a business model to commercialise. The funding relieved current financial pressure they were under and an opportunity to continue focusing on the idea. In contrast, limited access to funding resulted in INC 2 startups immediately focusing on acquiring clients in order to generate revenue thus reducing financial pressure.

Groenewegen and De Langen (2012) and Savaneviciene et al. (2015) note that funding is a significant factor in the survival of startups with radical innovation. Comberg et al. (2014)

proposed that cash flow and access to financing is a trigger to business model innovation. However, the authors postulated that cash and financing could make a founder less attuned to the required changes in the business model.

The results of the study confirmed the statement by Comberg et al. (2014) that funding reinforced the initial focus of product focused startups. Though funding reduces initial financial pressure in startups, it may be short lived and does not negate the necessity for an effective business model. Entrepreneurs should ensure their initial focus includes development of an effective business model to commercialise their innovation.

### **6.1.3 Conclusion**

Business model innovation provides startups an opportunity to differentiate themselves in the market and construct an inimitable competitive advantage (Chesbrough, 2010; Frankenberg et al., 2013; Gassman et al., 2014; Teece, 2010; Zott et al., 2011). Despite its potential benefits, business model innovation does not appear to be a focus area for entrepreneurial ventures.

The initial priority of entrepreneurs appeared to be influenced by their motivation for starting the business and access to funding. Technology startups at INC 1 focused on product development in order to acquire a first to market advantage. Though funding is a significant factor in the survival of firms with radical innovation (Groenewegen & De Langen, 2012), it reinforced a product focus and could even make them unaware to the changes required in the business (Comberg et al., 2014). Continued product focus, while neglecting effective commercialisation of the solution using business model innovation could negatively influence the long term sustainability of the business.

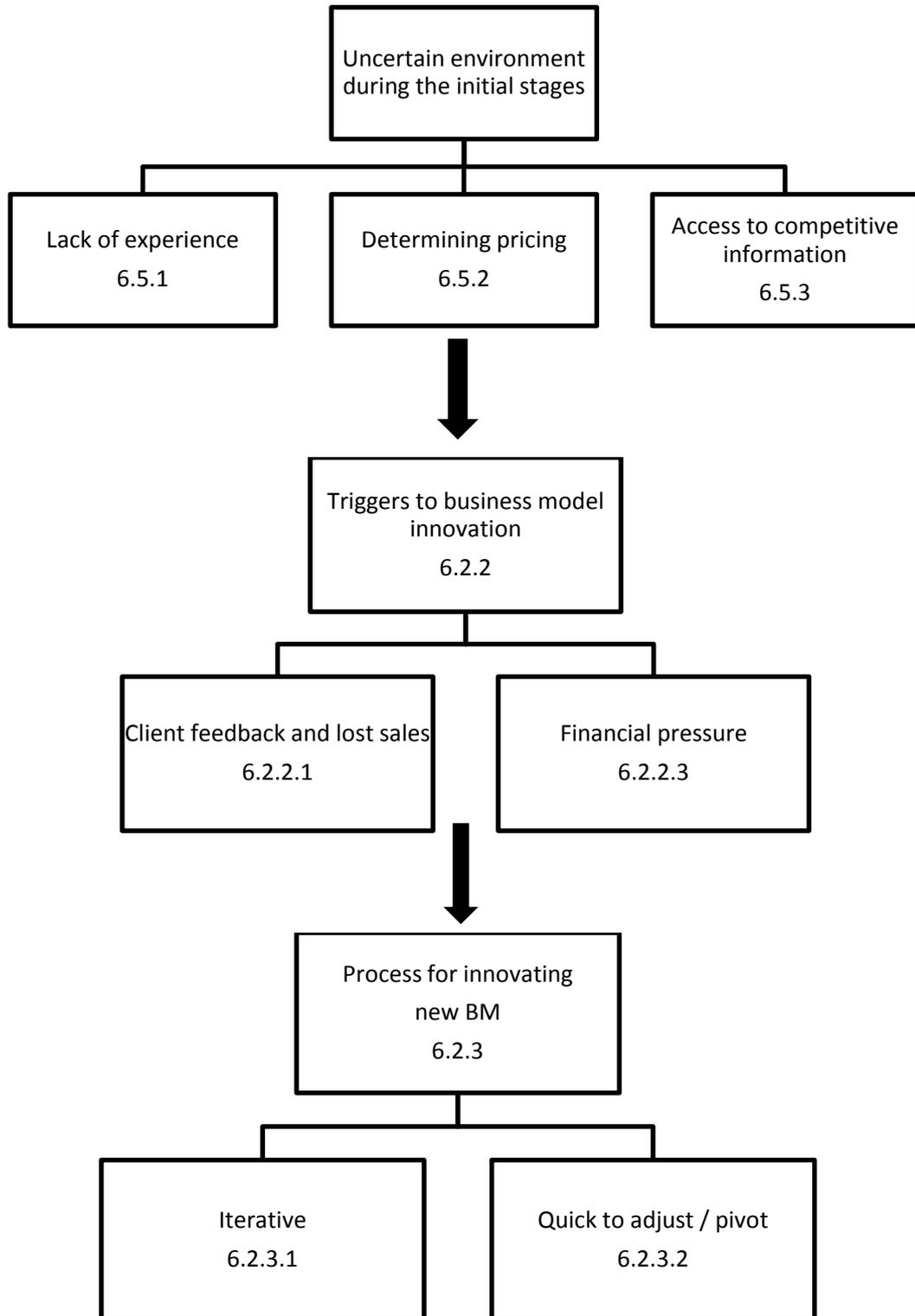
Startups entering existing competitive industries, INC 2, focused on making client acquisition a priority. However, entrepreneurs continually faced challenges to differentiate themselves in a highly competitive market which influenced their ability to generate revenue. Business model innovation provides startups with an opportunity to differentiate themselves in the market. Continuing to neglect the potential benefit of business model innovation could negatively impact the long term sustainability of startups entering existing competitive industries.

The results of this study confirm the current academic literature that proposes that business model innovation is not a priority for startup entrepreneurs and the potential benefit of its application in startups should not be ignored.

## 6.2 RESEARCH QUESTION 2:

What is the structure and process of business model innovation in startups?

Figure 13: Structure and process of business model innovation in startups



The aim of this study was to strengthen the understanding of the process of business model innovation in startups. To achieve this, entrepreneurs were asked to share their experiences and tell their story. This allowed the study to evaluate the process of business model innovation including specific trigger events and underlying reasons for actions that were taken or decisions that were made. Four themes emerged revealing the structure and process of business model innovation in startups.

### **6.2.1 Uncertain environment during initial stages**

This study confirmed the ambiguity that startups experience during the initial stages of the new venture. Participants from both incubators indicated that uncertainty was due to a combination of lack of knowledge and experience in running their own business and truly understanding the distinct needs of the client. In addition, technology startups at INC 1 disclosed increased uncertainty as a result of the newness of the market they were entering, considering the product or service did not exist. Entrepreneurs who started the business with no prior experience in that industry found the ability to position their solution in the market a complex process.

This led to a high degree of uncertainty when creating the initial business model. This confirms the work by Ries (2011), Trimi and Berbegal-Mirabent (2012) who propose that entrepreneurs operate in an uncertain and continuously evolving environment impacted by changing market conditions, customer feedback, suppliers and investors. Teece (2010) proposes that the high degree of uncertainty means that the ideal business model is not likely to emerge at the first attempt. This is confirmed by Comberg et al. (2014) who postulate that the probability of startups creating a successful business model the first time is minimal. Furthermore, Teece (2010, p. 176) advances that developing a business model is a “complex art”, highly circumstantial and likely to be an iterative process.

Startups with innovative product solutions had an additional level of uncertainty. Besides limited entrepreneurial experience, the newness of the product contributed a considerable degree of uncertainty as to how the market would adopt the new solution. The consequences of the novelty value of the product denote that the target market and its associated value proposition was not yet clearly defined.

As suggested in the literature review Chapter 2.5.2, the influence of launching a radically innovative product on the survival of firms has been varied. Some studies suggested it increased the level of uncertainty and posed unique challenges (Groenewegen & De Langen, 2012; Velu,

2015), but others have shown that adopting radical innovation can potentially disrupt existing markets and leads to potentially higher returns and increased market share (Christensen & Rosenbloom, 1995; Velu, 2015). Results are therefore inconclusive. Nevertheless, firms should be aware that one of the biggest threats to technological innovation is that a determined competitor can easily sidestep or copy the innovation (Morris L., 2009; Groenewegen & De Langen, 2012).

This study thus confirms the current academic literature that acknowledges the uncertain environment experienced by entrepreneurs during the early stages and the ensuing influence it has on developing their first business model.

## **6.2.2 Triggers to business model innovation**

As suggested by Comberg et al. (2014), the probability of startups creating a successful business model the first time is minimal. This is confirmed by Sosna et al. (2010) who postulate that firms "begin with a business model and then - in response to certain triggers (typically external)" (p. 384) just their business model without explicitly identifying these triggers. This study revealed that business model innovation was as a result of a trigger or catalyst that resulted in the startup evaluating their current business model and deciding to embark on business model innovation. Three triggers were identified: client feedback lost sales and financial pressure.

### **6.2.2.1 Client feedback and lost sales**

Six startups commented that once the initial business model was released in the market, they got feedback from potential customers that resulted in them considering business model innovation. This was often in the form of direct face-to-face or electronic feedback from customers, where there would be direct contact with clients about why they were not purchasing the product. The direct nature of the feedback required less analysis by the startups of which aspects needed to be amended. Another, a more indirect way of receiving feedback was lost sales. Lost sales were another trigger that pushed startups to evaluate their current business model and then start going through a business model innovation process. However, this was not direct feedback and, therefore, often unclear to the entrepreneurs what needed to be changed. They found it harder to interpret and, therefore, harder to understand the appropriate response.

Referring to the literature in section 2.6.4, according to Balboni and Bortoluzzi (2015) one of the triggers to business model innovation in startups could be as a result of adjusting to more specific customer needs and market misalignment. This was confirmed through this study with the first two triggers identified. Startups initiated business model innovation as a result of client feedback and lost sales, which compelled entrepreneurs to adjust their model according to customer and

market requirements. Moreover, it supports the assertions by Groenewegen and De Langen (2012); Johnson (2010); Morris et al. (2005); Ries (2011); discussed in section 2.3.1, that one of the reasons startups fail is due to insufficient knowledge of their target customers and inadequate focus on customer feedback. This is supported by Sako (2012) who suggests that the ability to sense and “satisfy consumers” unmet needs is conceivably the most important driver of business model innovation.” (p. 24).

This study revealed that the majority of startups were reactive to customer feedback received, instead of proactively focusing on customer feedback by testing the business model with customers, which Blank (2013) and Ries (2011) propose in section 2.3.2, as being important to provide startups with valuable learning for the business model innovation process. The authors postulated that by proactive testing with the intent of failing fast and gaining insight from the failure before adjusting accordingly not only minimised costs but increase the chances for successful commercialisation. Thus, this should be a priority for startup ventures.

#### **6.2.2.2 Financial pressure**

The results of this study showed that for some startups lost sales or lack of response from the market resulted in little or no revenue coming into the startup, which led to increased financial pressure on the new venture. The financial pressure led to the startup taking a hard look at their current business model as this would potentially have a direct effect on the potential future of the business.

Comberg et al. (2014) propose in section 2.6.4. that internal factors such as the business’ financials, cash flow or financing are factors that influence business model innovation in startups. Limited financial resources in startups were initially referred to in section 2.3.1 where Comberg et al. (2014); Groenewegen and De Langen (2012); and Savaneviciene et al. (2015) proffered it as a reason for startup failure. When comparing business model innovation in startups to incumbent firms, in section 2.6.5 Comberg et al. (2014) and Paradkar et al. indicate that limited financial resources implied that startups had limited opportunities to experiment with different business models.

Thus, this study’s findings support the literature: most startups only tended to change their business models when triggered by external events - limited initial financial resources combined with no incoming revenue meant startups experienced extreme financial pressure, which triggered business model innovation.

### **6.2.2.3 Conclusion: Triggers to business model innovation**

The results of this study confirm the current academic literature that proposes that startup entrepreneurs do not proactively apply business model innovation, but do so in response to specific internal or external triggers.

### **6.2.3 Process for business model innovation in startups**

There appeared to be no uniformed approach followed by the entrepreneurs. Instead, the process was response driven and dependant on the experience of the entrepreneur and the urgency of the change required.

#### **6.2.3.1 Iterative nature of the business model in startups**

The study findings show that business model innovation in startups was a continuously iterative and evolving process. Once the business model innovation process was completed, it required testing in the market. The feedback from this testing would signify an adjustment based on specific triggers that were discussed in section 6.2.2.

Although Morris et al. (2005) have taken a static view on business model innovation, the iterative evolutionary nature of business models in startups is supported by McGrath (2010) who suggests that business models evolve through a process of experimentation. Teece (2010) suggests that good business model design is decidedly situational and its design expected to involve iterative processes, which Trimi & Berbegal-Mirabent describe as “trial-error dynamics” (2012, p. 455).

As proposed by Comberg et al. (2014); Ries (2011); and Trimi and Berbegal-Mirabent (2012) in section 2.6.3, the iterative process is partly due to the inexperience and uncertainty in developing their initial business model as well as the continuously evolving and dynamic environment they operate in.

The idea of a continuously experimental approach is upheld by Demil and Lecocq (2010) who postulate that business model innovation is a continuous reaction to fluctuations in the environment. The results of this study supports this literature by confirming the iterative nature of business model innovation in startups. Almost all the participants in the sample portrayed this experimental behaviour.

Teece (2010) proposes that the high degree of uncertainty means that the ideal business model is not likely to emerge at the first attempt. This is confirmed by Comberg et al. (2014) who postulate that the probability of startups creating a successful business model the first time is

minimal. This study, therefore, reinforces the current literature in describing business model innovation in startups as an iterative process. As seen in table 11, interviewed startups continually changed their business models to suit market conditions, and respond to triggers and challenges.

### **6.2.3.2 Pivoting of business models in startups**

This study found that despite the lack of experience or challenge with business model innovation, the entrepreneurs interviewed responded quickly to adjust their business model in response to the triggers identified.

The result support the assertion by Comberg et al. (2014) that it is easier for startups to change and implement a business model due to their agility and quick decision making process. In contrast incumbent firms face challenges such as needing to overcome the current business logic (Frankenberger et al., 2013) or managers that resist change as it threatens their ongoing value to the business (Chesbrough, 2010) or alternatively, they are overly focused on the day to day operational business (Kesting & Günzel-Jensen, 2015).

As discussed in section 2.3.2, Ries (2011) postulates that the competitive nature of technological innovation necessitates technology startups to be flexible, agile and respond faster to change than their competitors. Chesbrough (2010) and Ries (2011) advocate that testing the business model in the market provides entrepreneurs with an opportunity to assess how the market responds to the value offering, which will provide valuable learning. Which Ries (2011) and Blank (2013) state gives them an opportunity to decide to continue the current path or persevere.

In contrast to the recommendations of the lean startup by Ries (2011) and supported by Chesbrough (2010) and Trimi and Berbegal-Mirabent (2012); this study found that entrepreneurs were not proactive in developing a business model to test in the market. Instead, entrepreneurs were very product focused as discussed in section 6.1.1 and only responded once certain triggers, discussed in section 6.2.2, forced them to reevaluate their current business model.

The flexible nature of a startup lends itself to being able to make changes quickly and consistently until the correct model is found. This applied to some, but not all, of the startups interviewed. Trimi and Berbegal-Mirabent (2012) postulate that due to the dynamic nature of innovation, new technology based ventures need to be especially adept and at responding and adjusting to changes swiftly. This includes changes in the market or competitive environment and response to customer demands. In addition to the dynamic natures of innovation, startups often compete with established businesses with more resources and a stable life cycle (Trimmi & Berbegal-Mirabent, 2012).

#### **6.2.4 Conclusion**

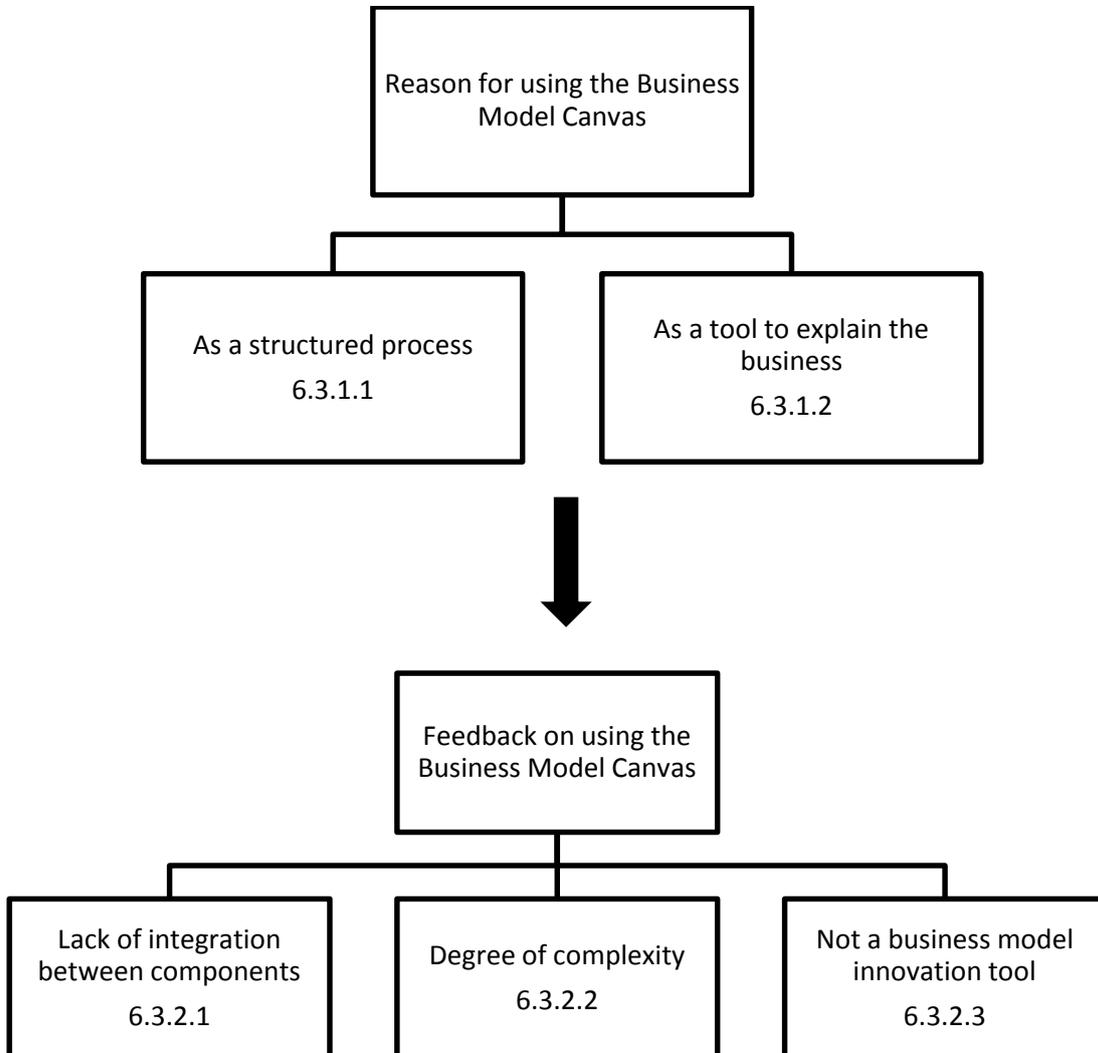
Startups operate under extreme uncertainty due to a lack of experience and in technology startups, the novelty of their solution. The lack of experience means that their first business model is seldom correct. This highlights the importance of proactively testing their business model and receiving market feedback. However, in contrast to the suggestions by Blank (2013) and Ries (2011) startups are not proactive in testing their business model with customers. Instead, business model innovation occurs as a result of certain triggers.

However, despite the pervading uncertainty, startups did not display evidence of being proactive in testing their business model with customers. As mentioned in section 6.1 this would appear to indicate that entrepreneurs initial focus is not on business model innovation. Instead, business model innovation tends to occur reactively as a result of certain triggers.

A reactive approach to business model innovation, denoted by waiting for specific triggers before responding, could have undesirable effects. Firstly, it might be too late for the startup to respond or be too costly to change the inherent structured course. Secondly, a reactive approach could mean startups miss potential growth opportunities as they are too focused on the day today running of the business or product development.

### 6.3 RESEARCH QUESTION 3:

Do startups use business model development frameworks when creating their business model?



#### 6.3.1 Reason for using the Business Model Canvas

##### 6.3.1.1 Part of a structured process for business model development

Business model frameworks are designed to assist companies in business model design and innovation (Gassman et al., 2014; Johnson, 2010; Osterwalder & Pigneur, 2010). The results from the study showed that startups had all used the Business Model Canvas at least once during their

initial startup phase. There was a strong drive from both of the incubators that the startups complete the Business Model Canvas, as part of their initial application and incubation stage, as a structured process to guide business model development. The startups were given a blank canvas (Figure 3) and asked to complete it, without reading the book upon which it was based, after which it was presented to trainers, mentors or a panel of judges who reviewed their decisions and questioned the entrepreneurs on some of the assumptions made during the process.

Magretta (2002) and Trimi & Berbegal-Mirabent (2012) propose, as discussed in section 2.3.2, that one of the reasons startups fail is they lack a systematic process for discovering their markets and testing their assumptions. The results of this study indicated that the frameworks assisted startups by guiding their thinking to consider all the aspects of a business model. This is supported in section 2.6.8.3, where Osterwalder & Pigneur (2010) postulate that the Business Model Canvas was designed to guide firms towards a systematic approach to creating a business model. This study thus supports the literature in that business model frameworks provide a systematic structure and process for firms to develop their business model.

Notwithstanding the benefit of following a systematic approach, it does not answer the question of whether utilising the Business Model Canvas lead to a more successful or robust business model, or not. Firstly, used in isolation it did not challenge the assumptions made by the entrepreneur, but required the guidance from mentors or trainers to induce this aspect of assumption challenging. Entrepreneurs with no business experience found the process especially challenging. This can potentially lead to a disconnect or feeling of impracticality during implementation. Secondly, though it brought attention to all the facets of a business model, the interrelatedness of the different components was not apparent to entrepreneurs and reinforced the need for guidance by experts. One could argue that the Business Model Canvas is too simplistic to add value to such a complex phenomenon. However, the results revealed that it compelled startups to consider all the aspects of a business model, which they would not have otherwise done without the guidance of the Business Model Canvas.

#### **6.3.1.2 Business Model Canvas used for explaining the business**

Furthermore, startups commented that the Business Model Canvas was used as a tool to explain the business. It was used extensively while hosted at the incubator to explain the business as part of the application process or pitches to potential investors. One entrepreneur commented that the only reason he used the framework was that it was a requirement for funding purposes or when upon entering a competition as a universal tool for explaining the business in a structured and consistent manner. This is supported by Osterwalder and Pigneur (2010), refer to section

2.6.8.1, who state that it allows key stakeholders to understand how the business aligns its different components. Zott et al. (2011) suggest that business model frameworks offer a shared lexicon on which to compare and discuss business models.

Despite the intension of the authors of the potential benefits of the Business Model Canvas, discussed in section 2.6.8.1, this study revealed that utilisation was limited to providing structure and guidance to their initial business model development and as a tool to explain the business and not for business model innovation.

### **6.3.2 Entrepreneurs feedback on using the Business Model Canvas**

#### **6.3.2.1 Lack of integration between components**

One limitation that was indicated by two of the startups is that the Business Model Canvas shows the nine components, but doesn't demonstrate the integration of the components and how they affect each other. One entrepreneur described it as one sided. This goes against the intention of Osterwalder and Pigneur (2010), refer to section 2.6.8.1, who propose that an advantage of the Business Model Canvas is that it shows cohesion of all the elements and shows how they relate to each other.

#### **6.3.2.2 Degree of complexity**

This study found that most of the startups were encouraged to use the Business Model Canvas by their incubator. This means it was not necessarily their personal choice. The experience of the inaugural use of the Business Model Canvas varied among the startups interviewed. Some users found it quite complex and were unsure of how to approach and use it. Other startups found the tool simple and useful guiding their thoughts, assumptions and indicating items that they might have ignored. Some entrepreneurs admitted that the initial business plan was mostly in their head, so the process of completing the canvas forced them to get it onto paper.

Startups commented that determining the value proposition was very difficult to do. This complexity was not specifically related to the business model framework, however, this reinforces the concept that startups struggle to develop a unique value proposition that positions them in the market and allows them to effectively compete. In highly competitive industries startups face large and small competitors and differentiating themselves should be a priority.

### **6.3.2.3 Not used for business model innovation**

The majority of entrepreneurs used it only as an initial tool to define all the elements (a slice in time) of their business model and did not use it again when going through a business model innovation process. This concurs with the statement by Chesbrough (2010), in section 2.6.8.4, who disclosed that frameworks are intended to guide entrepreneurs in the business model development and are helpful in explicating business models; however, used in isolation they do not drive business model innovation (Chesbrough, 2010). It confirms the need for this study, as the current framework does not assist firms with business model innovation.

Of all the frameworks evaluated in section 2.6.8, only the Business Model Canvas framework had been used by any of the entrepreneurs in this study. In startups, current business model frameworks are useful to explain the business and guide initial business model development, however, they do not assist startups with business model innovation.

### **6.3.3 Conclusion**

As discussed in section 2.6.8, business model frameworks were designed to guide companies in the process of business model discovery and design (Chesbrough, 2010; Gassman et al., 2014; Johnson, 2010; Osterwalder & Pigneur, 2010). Their formal, structured approach describes the essential components, elements and relationships of a business model (Zott et al., 2011).

This study revealed that the Business Model Canvas was widely used by startups as a systematic approach to develop their initial business model and was encouraged by investors, trainers, competitions and incubators. Despite the benefit derived from guiding entrepreneurs to follow a systematic approach as well as provide a common lexicon to describe and compare various businesses, this study could not decisively prove if utilising the Business Model Canvas lead to a more successful or robust business model, however it did highlight the following concerns.

Firstly, used isolation it did not challenge the assumptions made by the entrepreneur, but required the guidance from mentors or trainers. Therefore, this study suggests that the potential benefit of frameworks is limited by the experience or knowledge of the person using it and the assistance available to them.

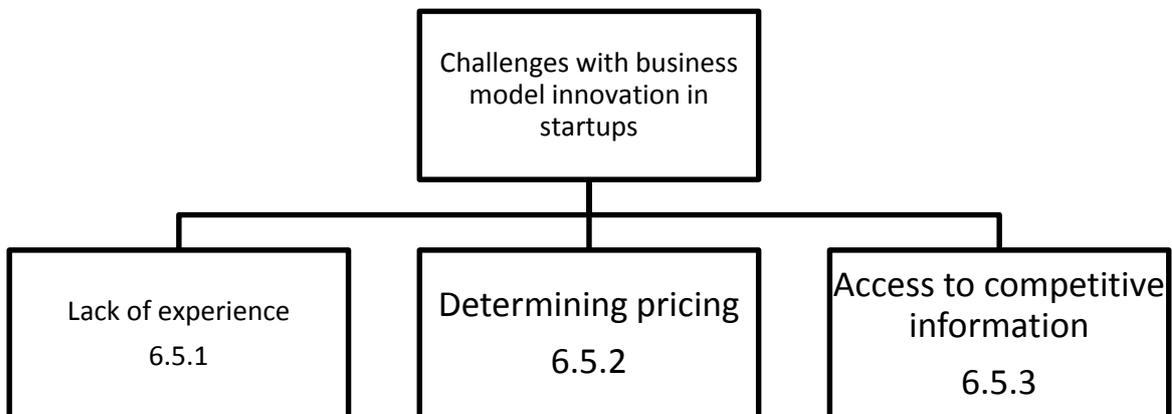
Secondly, though it brought attention all the components of a business model, the interrelatedness of the different components was not apparent. This could lead to challenges in actual implementation of the model or a disparity between the initial business model and what happens in practice. It further reinforces the need for guidance by experts or suggest that

entrepreneurs should be advised on the use of the framework in conjunction with the book upon which it was based.

Thirdly, the results showed that the Business Model Canvas was useful to assist entrepreneurs to in the develop of their initial business model, with the appropriate guidance, but there was limited utilisation of the model for business model innovation. Which supports the statement by Chesbrough (2010), in section 2.6.8.4, who postulate that frameworks are helpful in explicating business models, but used in isolation they do not drive innovation.

#### 6.4 RESEARCH QUESTION 4:

**What are the challenges startups face with business model innovation?**



##### 6.4.1 Lack of experience

This study identified specific challenges that startups experience with business model innovation. The entrepreneurs in the study came from a variety of backgrounds, qualifications and experience, but for the majority of entrepreneurs it was their first attempt at starting and running a business. Thus, for the majority of them, this was the first time they had to develop a business model or attempt business model innovation, which they found a challenge.

The first challenge confirms the findings discussed earlier in section 6.2.1 regarding the high level of uncertainty and lack of experience exhibited by entrepreneurs in business model innovation. It supports the statement by Teece (2010) that business model innovation is a complex phenomenon. Oe and Mitsuhashi (2013) postulate that founders' previous business experience is a critical factor in startups growth and success, especially in the same industry. In addition, Velu (2015) suggest that ability to successfully deploy resources in pursuit of profit is a characteristic

that forms part of the effective business model design, and hence is an important attribute in the attainment of entrepreneurial success.

The combination of the uncertain environment as well as limited business experience, could possibly one of the reasons entrepreneurs revert back to what they are comfortable with, which is product development. This relates back to the findings discussed in 6.1.1.

Though startups do not experience the additional barrier to business model innovation experienced by established firms, as proposed by Chesbrough (2010), Christensen and Rosenbloom (1995), Frankenberger et al. (2013) and Koen et al. (2011) discussed in section 2.6.5. Established firms find the process highly challenging owing to the difficulty of overcoming their present business rationality, including the existing business model that has contributed to their success to date. Despite their lack of experience, startups do not have to overcome internal rigidity and have the potential to adjust and move swiftly.

It was clear that across all startups interviewed, the vast majority of entrepreneurs lacked the requisite experience. This lack of experience continued to complicate day-to-day operations through increased uncertainty.

#### **6.4.2 Determining pricing**

Startups from INC 1 and INC 2 noted that determining the correct pricing as part of the revenue model for their solution, was a challenge. Firstly, technology startups from INC 1 indicated the newness of the product or market they were entering meant the product or service did not exist. Therefore, it was difficult to determine pricing as the product was still in the process of being developed and the value proposition was still unclear. This is supported by Groenewegen and De Langen (2012) and Velu (2015), in section 2.5.2, who propose that radical innovation poses unique challenges due to the uncertainty of the potential market, the needs of the customer as well as managing the innovation. In addition, the results confirm the statement by Teece (2010) who propose that pricing and value capture is difficult when value delivery involves intangible assets. In addition, entrepreneurs' inexperience discussed in section 6.4.1. could influence their ability to determine pricing.

It should be also be noted that section 6.1.1.1 revealed that technology startups from INC 1, were focused on product development in the initial stages of the venture. The challenge to determine pricing could result from the product-focussed bias shown by the entrepreneur or that the availability of funding, section 6.1.1.2, reduced the pressure to commercialise the innovation, a part of which would be to determine appropriate pricing.

### **6.4.3 Access to competitive information**

#### **INC 1:**

Technology startups based at INC 1 were introducing new innovative solutions to the market. The newness of the product or market they were entering meant that known competitors did not yet exist. Entrepreneurs indicated that pricing was challenging, precisely due to the lack of competitors against whom the product could be positioned. Trimi and Berbegal-Mirabent (2012) propose that radical innovation has the potential to give firms a first mover competitive advantage with potentially higher returns (Christensen & Rosenbloom, 1995; Velu, 2015). However, Teece (2010), in section 2.3, proposes that this is only possible by effectively capturing value from the innovation. The revenue model is, thus, a crucial part of the business model and could influence the survival of the firm.

#### **INC 2:**

This study found that startups entering existing competitive markets did not have to contend with developing a revenue model whilst the solution was still being developed. However, the competitive nature of the industry they were entering required them to differentiate themselves from competitors by offering a unique value proposition that would allow them to effectively compete. This was vital as these startups quickly needed to acquire clients to generate revenue for the business. Despite the vast number of competitors in their existing market, startups at INC 2, found they could not get access to competitive information including pricing and value offering. They suggested that this made determining their own unique value proposition as well as how to capture value effectively more difficult.

### **6.4.4 Conclusion**

Established firms find the process of business model innovation challenging, not just owing to its complexity, but due to the difficulty in overcoming their current business rationality including the challenge of overcoming the existing business model that has contributed to current success (Chesbrough, 2010; Christensen & Rosenbloom, 1995; Frankenberger et al., 2013; Koen et al., 2011). Despite the apparent benefits of business model innovation to startups, limited research exists that evaluates the challenges of business model innovation in startups (Trimi & Berbegal-Mirabent, 2012; Lambert & Davidson, 2013).

Challenges derived from this study varied greatly depending on context, however, three key themes emerged. The first challenge contributes to existing literature which states the lack of

experience of entrepreneurs is a challenge to business model innovation. Next, pricing as a challenge was supported by Groenewegen and De Langen (2012), Teece (2010) and Velu (2015) and particularly highlighted the unique challenges faced by startups with radical innovation. The last key theme was access to competitive information due to a lack of competitors, or an existing market. Though these challenges could appear simplistic to established firms, one has to remember that for the majority of the entrepreneurs, this was their first venture and most have very limited experience in running a business. In addition, they operate under extreme uncertainty. It could be suggested that their limited business and entrepreneurial experience leads to challenges, which established firms view as a standard component of conducting business.

Despite the challenges experienced by startups in business model innovation, they have the ability to adjust quickly (pivot) in response to feedback from the market. This gives them an advantage over incumbent firms. It would appear that part of the challenge, though not directly mentioned, was that startups did not truly understand their value proposition to customers or what problem they were solving, which made pricing more complicated.

## CHAPTER 7: CONCLUSION

This chapter summarises the main theoretical findings of this study. Using these findings, it introduces a new model to assist startups with business model innovation. Thereafter, recommendations for management and entrepreneurs are suggested at the end of the chapter.

The purpose of this study was threefold. Firstly, it intended to contribute to the current academic literature on the emerging concept of business model innovation. Secondly, enable understanding of the utilisation and challenges created by business model innovation for startup entrepreneurs. Thirdly, by introducing a new model to increase startup utilisation of business model innovation processes and harness its positive revenue and value creation effects.

This chapter considers the limitations of this study and concludes with suggestions for future research.

### 7.1 PRINCIPLE FINDINGS

Despite the potential benefit of business model innovation for startup ventures, this study revealed that business model innovation is not a priority for startups. Startups do not follow a proactive, unified, systematic process for business model innovation. Instead, business model innovation is response driven and based on specific triggers. Startups have an advantage, compared to established firms, as they are quick to respond and take a structured course correction. The findings are discussed in more detail below.

#### 7.1.1 Startups do not consider business model innovation a priority when creating a new venture

This study found that startups do not consider business model innovation a priority when creating a new venture. During the initial stages of a new venture, technology startups were focused on product development, whilst startups entering existing competitive industries were focused on acquiring clients.

The initial focus by technology entrepreneurs could be attributed to the assumption that being first to market will automatically lead to sustained profits (Baden-Fuller & Haefliger, 2013). However, technological innovation by itself has no value until its commercialised through a business model (Chesbrough, 2010) and often the failure of startups can be directly attributed to the inability to commercialise innovations effectively (Morris et al., 2005; Paradkar et al., 2015; Teece, 2010).

Non-technology startups entering existing competitive industries who made client acquisition a priority, continually faced challenges in differentiating themselves in a highly competitive market. Business model innovation could provide startups with an opportunity to create a unique competitive advantage that distinguishes themselves from competitors (Chesbrough, 2010; Frankenberger et al., 2013; Gassman et al., 2014; Teece, 2010; Zott et al., 2011).

Continuing to neglect the potential benefit of business model innovation could negatively impact the long-term sustainability of startups.

### **7.1.2 Business model innovation in startups is iterative, unstructured and in response to specific internal and external events**

Established firms are known for their inherent structure, process driven activities and low uncertainty (Comberg et al. 2014; Frankenberger et al., 2013; Koen et al., 2011). In such environments business model innovation will also likewise follow a structured process. In contrast, startups operate under extreme uncertainty, in a constantly evolving environment (Ries, 2011). It is not surprising that startups do not follow a uniform, structured process for business model innovation. Business model innovation in startups is a continuously evolving and iterative process which is initiated in response to internal and external triggers.

In contrast to the recommendations of the lean startup by Ries (2011) and supported by Chesbrough (2010), Trimi and Berbegal-Mirabent (2012) this study found that entrepreneurs were not proactive in developing a business model to test in the market. Instead, business model innovation was purely reactive and occurred in response to internal and external triggers.

### **7.1.3 Business model frameworks have limitations**

The practicality and predictive power of business models are expected to increase the success rate of new enterprises by purposefully guiding decisions, actions and eradicating incorrect assumptions during the critical initial stages of a new venture (Chesbrough, 2010; Johnson, 2010; Spieth et al., 2014; Trimi & Berbegal-Mirabent, 2012). This study revealed an extensive use of the Business Model Canvas throughout, and utilisation appears to be endorsed by investors, trainers, competitions and incubators.

This study showed that business model frameworks are useful in providing entrepreneurs with a systematic approach that considers all elements of a business model. However, business model frameworks are limited by the knowledge and experience of the entrepreneurs who use them. Entrepreneurs with limited business knowledge or experience, can find business model

frameworks intimidating and complex. Thus, successful utilisation of the framework was dependent on the guidance entrepreneurs received from trainers or mentors.

In addition, the interrelatedness of the nine business model components was not apparent to entrepreneurs, which affected the practicality of implementation. This resulted in utilisation of the Business Model Canvas being limited to initial business model development and not as a business model innovation tool. The study's finding supports the statement by Chesbrough (2010), who postulates that frameworks are helpful in explicating business models, but used in isolation they do not drive innovation.

This study proposes a simplified model for business model innovation in section 7.2, which incorporates a set of key interrelated components and a step by step iterative process.

#### **7.1.4 Challenges to business model innovation in startups**

Established firms find the process of business model innovation challenging, owing to the difficulty of overcoming their current business rationality including the challenge of overcoming the existing business model that has contributed to the firm's current success (Chesbrough, 2010; Christensen & Rosenbloom, 1995; Frankenberger et al., 2013; Koen et al., 2011).

In contrast, limited business experience and the extreme uncertainty that startups operate in are the major challenges of business model innovation in startups. Entrepreneurs operate in an uncertain and continuously evolving environment impacted by changing market conditions (Ries, 2011; Trimi & Berbegal-Mirabent, 2012). This study found that the high degree of uncertainty made business model innovation a challenge. In technology startups, the newness of the product, contributed additional uncertainty as the product or market did not previously exist.

Startup entrepreneurs found business model innovation a challenge due to their limited business experience. The risk involved in making an incorrect decision could have contributed to the perceived challenge as startup entrepreneurs often make a large personal and financial investment when starting a new venture. The nature of entrepreneurship denotes a balance between risk and reward. However, entrepreneurs see opportunities in situations where others see risks (Saravathy, 2001).

Despite their lack of experience, startups are not restrained by internal rigidity and resistance to change inherent in established firms, but are agile and able to respond and move forward quickly giving startups an advantage over established firms (Christensen & Rosenbloom, 1995).

### **7.1.5 Conclusion**

The findings of this study contribute to the current academic literature on the emerging concept of business model innovation in startups. Moreover, the study builds on these findings by introducing a new model to address the current limitations in the literature and entrepreneurs experience with current business model innovation processes.

## **7.2 THE STARTUP BUSINESS MODEL INNOVATOR**

Current business models frameworks in the literature follow distinct approaches.

The Business Model Canvas (Osterwalder & Pigneur, 2010), guides managers and entrepreneurs to consider all potential business model components when developing a business model. Despite the intention of the authors, the interrelatedness of the components was not obvious to entrepreneurs, unless guided by a suitable trainer or mentor. In addition, this study found that startup entrepreneurs found the process valuable to guide their thinking, but it was perceived as a complex process.

Seizing the white space (Johnson, 2010) and the Business Model Navigator (Frankenberger et al., 2013) appear to be designed for established firms, who are looking for new opportunities and growth through business model innovation.

Though each of these models have unique benefits, the limited experience of entrepreneurs could reduce their effectiveness. Without the benefit of a trainer or mentor it would appear that they tend to keep processes in isolation and do not encourage integrated thinking with regard to the consequences or spill-over effects. This is necessary as entrepreneurs might lack the experience to know the consequences of each component decision or understand how they should be integrated. In addition, current frameworks do not proactively encourage the testing of their business model with clients, incorporating the learning from The Lean Startup (Ries, 2011).

In response to the above limitations and the insight gained from real world startups, the Startup Business Model Innovator is proposed. The model provides a simplistic, step by step circular process, intended to guide users through decisions and improve focus on the most salient business model components. The Startup Business Model Innovator model emphasis the interrelatedness of the business model components, showing that every decision influences and determines the next decision. In addition, it incorporates testing with real clients and encourages the iterative nature of business model innovation.

The model consists of five steps:

**Step 1: Define the target customers' needs or job-to-be-done**

The customer's unmet needs form the core of all decisions. Startups need to be specific about who the target customer is and their specific unmet need or job-to-be-done, keeping in mind that the customer's unmet needs are not always easily visible. Ultimately the business model will only be successful if the solution solves a specific customer problem in a manner that customers perceive as valuable.

**Step 2: Create a unique value proposition to solve the customer's problem?**

Once the startup has a clear understanding of the customer need or problem they intend to solve, the next step is to determine how the startup can uniquely provide that value to the customer. Questions to ask include: Why would clients buy this solution? What makes it better than the competition or current solution? What potential barriers could prevent the customer buying?

**Step 3: Which key processes or resources are required to provide the value?**

This step considers which combination of processes and resources are required to provide the value. This should not be limited to your current resources and processes. Startups should consider unique ways the value can be provided.

**Step 4: The profit formula (How can the startup solve the problem profitably?)**

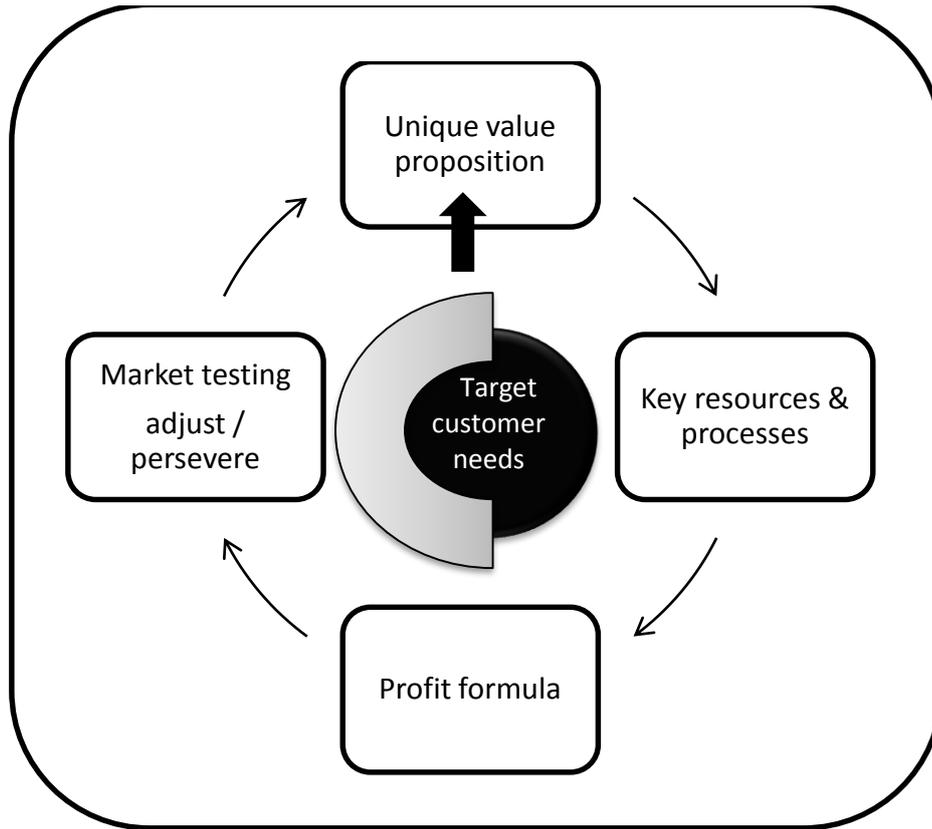
This is an essential step as part of the process. How do we solve the problem and provide value profitably? What would a client be prepared to pay for it? This section focuses on the revenue model.

**Step 5: Test the business model in the market with real clients - adjust or persevere**

This step involves testing the business model with real clients in order to get feedback. The results of this study revealed that startups do not proactively test their business models with clients, which is why this important step was included in the process. Based on the results of this test, the firm will either adjust their model by going through the entire process again and evaluating which component needs to change. If client acceptance is good, the firm can persevere.

The model is visually depicted in Figure 14.

**Figure 14: The Startup Business Model Innovator (SBMI)**



The practicality and success of this model has not been tested. This provides an opportunity for future research.

### **7.3 RECOMMENDATIONS FOR MANAGEMENT AND ENTREPRENEURS**

Managers and entrepreneurs from technology firms should be conscious of their bias to prioritise product development over the development of a business model to effectively commercialise their innovation. Technological innovation might provide a first mover advantage, but in order to capture value from that advantage an effective business model is required. Technological innovation can also easily be replicated by a competitor, where business model innovation creates a competitive advantage that competitors could find harder to replicate.

Managers and entrepreneurs of startups that enter existing competitive industries should cease to regard business model innovation as the sole domain of technology firms, but view it as a powerful tool that can provide them with an inimitable competitive advantage in an increasingly competitive business landscape. The power of business model innovation is demonstrated by

successful former startups like Über and Airbnb, who successfully disrupted established, highly competitive markets.

Managers and entrepreneurs could benefit from pro-actively testing their business models with real world clients instead of a reactive approach to business model innovation. Waiting for specific triggers from the market before responding, could have undesirable effects. Firstly, it might be too late for the startup to respond or be too costly to change the inherent structured course. Secondly, a reactive approach could result in startups missing potential growth opportunities as they are too focused on the day today running of the business or product development.

It is acknowledged that startups operate under extreme uncertainty and are often started by entrepreneurs with limited business experience. This could cause business model innovation to be a challenge. Despite their lack of experience, startups have an advantage over established firms as they do not have to overcome internal rigidity and resistance to change, but are agile and the able to respond and move forward quickly. Specialised skills can be insourced to provide guidance and mentorship. In addition, utilising frameworks, such as the Startup Business Model Innovator, is recommended to guide the process.

#### **7.4 LIMITATIONS OF THE RESEARCH**

The limitations of this study are discussed below:

This study was limited to startups currently in the incubation or commercialisation stage at a startup incubator, all failed startups were excluded. There is a risk of survivorship bias, as the study only concentrated on startups that have survived, overlooking startups that have failed.

Obtaining access to the startups based at INC 2 proved more challenging than anticipated, as a result the number of participants remained low. This could potentially have limited the view of further startups at INC 2.

All financial information relating to startup performance including financial statements and cash flow were excluded from the study.

The study targeted startups across industries. Industry specific influences and dynamics have been excluded from the study.

## 7.5 SUGGESTIONS FOR FUTURE RESEARCH

Based on the theoretical findings of the study and the limitation identified, the following areas are suggested for future research:

The study revealed that business model frameworks are valuable as a structured process to guide business model development as well as compel startups to question some of their assumptions. However, it was not able to prove that an accurate business model design process made a new venture more robust or successful. This presents an opportunity for future research as suggested by Trimi and Berbegal-Mirabent (2012) and Velu, (2015).

This study was limited to startups in South Africa. Literature has proposed that entrepreneurs in developing countries face different challenges from their counterparts in developed countries (Arinaitwe, 2006; Herrington et al., 2014; Paradkar et al., 2015). There is an opportunity to replicate the study in developed countries by way of comparison to these findings. Future research could evaluate business model innovation differences instead of entrepreneurial difference between these environments.

This study was limited to startups currently in the incubation or commercialisation stage at a startup incubator, all failed startups were excluded. This presents an opportunity for future research to replicate the study incorporating failed startups to establish any business model innovation behaviours that may contribute to startup failure.

This study was limited to startups based at two startup incubators in South Africa and excluded all other startups. An opportunity exists for the research to replicate this study on startups not based at incubators (or extended to include more incubators).

All financial information relating to startup performance including financial statements and cash flow were excluded from the study. Future research should evaluate business model innovation's influence on the financial performance of startups.

Future research should evaluate the influence of incubator culture and mentorship on startup performance, success or failure.

## 7.6 SUMMARY

Business model innovation can provide firms with a unique opportunity to differentiate themselves from competitors and even disrupt existing competitive industries. This study has shown that startup entrepreneurs are not yet poised to take advantage of this phenomenon. Entrepreneurs remain reactive to the value-creating power of business model innovation and continue to make conventional business focus areas such as sales and product development a priority. In addition, an uncertain environment and lack of business experience contributes to the challenges when attempting business model innovation.

This study contributed to the theoretical and practical understanding of business model innovation in startups. In addition, it provided a model to assist startups with the business model innovation process. Research in this field should be continued in order to advance the understanding of the dynamics of business model innovation, including how to overcome challenges and become a strategic focus area for management.

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## APPENDIX 1: LETTER OF CONSENT AND SEMI-STRUCTURED INTERVIEW GUIDE

<b>PARTICIPANT'S DETAILS</b>	
Name:	
Company name:	
Role:	
Incubator:	
<b>INFORMED CONSENT</b>	
<p>Thank you for spending time with me today. I am doing research on the process, elements and challenges of business model innovation in startups. Your personal views and experience on the subject will be invaluable in helping us understand how startups approach business model innovation including some of the challenges you experienced.</p> <p>The interview will last approximately 60 minutes and will be recorded with your consent. All data will be kept confidential, your name and details will be kept anonymous.</p> <p>Your participation is voluntary and you can withdraw at any time without penalty. If you have any concerns, please contact me or my supervisor. Our details are provided below.</p> <p>Researcher name: Tertia Barrett            Researcher e-mail: tertiabarrett@gmail.com            Researcher phone: 082 322 6580</p> <p>Supervisor name: Brett Wilks            Supervisor e-mail: brett.wilks@sametal.co.za            Supervisor phone: 083 309 5595</p> <p>Signature of Participant: _____ Date: _____</p> <p>Signature of Researcher: _____ Date: _____</p>	

## BUSINESS MODEL INNOVATION DEVELOPMENT AND PROCESS

Firstly, I would like to start by understanding the why and how the business started.

What led to starting this business? (Idea/new product/need to be met)

Can you explain your business model to me?

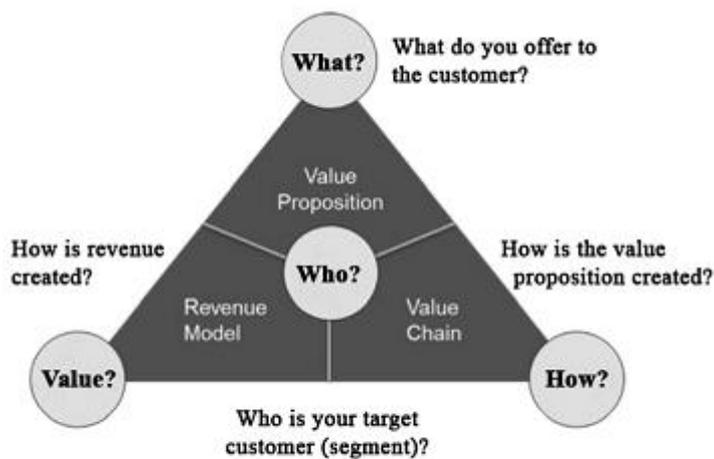


Fig. 4. Definition of business model.  
Source: Gassmann et al. (2014).

When you created your business model, can you describe the process you went through?

<b>Suggested business model development process (4I-Framework):</b>	
Initiation	Understanding / monitor ecosystem Identifying a need to be met
Ideation	Generation of new ideas for a business model <ul style="list-style-type: none"> <li>- Who</li> <li>- What</li> </ul>
Integration	Transform ideas into viable business model. Integrate pieces <ul style="list-style-type: none"> <li>- Why</li> <li>- How</li> </ul>
Implementation	Implementing the new business model
Were there any challenges you experienced during the process?	
What were they and how did you overcome them?	

Which part did you find most challenging when creating your business model?

## ELEMENTS, COMPONENTS AND FRAMEWORKS OF BUSINESS MODEL INNOVATION

Can you take me through some of the elements of your business model?

The Business Model Canvas

Designed for:

Designed by:

Date:

Version:

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
	Key Resources		Channels	
Cost Structure		Revenue Streams		

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Developed by: Strategyzer AG  
The masters of Business Model Generation and Strategyzer

strategyzer.com

**** for guideline purposes only	
<b>The Business Model Canvas: Nine building blocks for business model generation</b>	
Customer Segments	For whom are we creating value? Who are our most important customers?
Value Proposition	Clearly articulate the value that the firm delivers to customers. Understand what is the problem you need to solve and what need you are satisfying
Channels	Through which channels do our customers want to be reached?
Customer relationships	What type of customer relationship does each of our customers expect us to establish and maintain with them?
Revenue Streams	Understand how much customers are willing to pay for the value. Evaluate what they are currently paying for solving their problem and why?
Key Resources	Identify the key resources required to create and sustain the value proposition
Key Activities	What are some of the key activities required to perform your value propositions?
Key partnerships	Consider who your key partners and suppliers are and what key activities they perform?
Cost structure	Describe the most important costs inherent in the business model and identify the most expensive resources required to deliver value?
What would you say were the key elements or focus areas of your business model?	

What would you say was a priority focus area of the business model when you started your business?

(Guidance questions)

- Getting the product right?
- Understanding the needs of the customer or “job to be done” and providing a solution to those needs?
- How to commercialise or profit from the product or Business model innovation or product innovation and why?
- Building relationships with key partners and suppliers?
- Building the cost structure / revenue model?

Would a business model framework specifically designed for startups assist you in business model innovation?

What you think will be helpful in this framework?
<b>CLOSING</b>
Close and highlight some key items covered
Thank the participant and ask if there is anything else they want to help that would be helpful to the study

## APPENDIX 2: ATLAS.TI CODEBOOK

Q1: BM testing

Q1: customer feedback

Q1: initial model

Q1: initial model - did not know what we were doing

Q1: initial model - getting clients

Q1: initial model - great quote

Q1: pivot

Q1: process:

Q1: process: ideation

Q1: process: implementation

Q1: process: initiation

Q1: process: integration

Q1: test BM, adjust

Q1: triggers to BMI

Q1: Solving an unmet need

Q2: how is the value created?

Q2: key business model components

Q2: key business model components: target market

Q2: what do you offer the customer?

Q2: who is your customer segment?

Q3: business model - created their own

Q3: business model canvas

Q3: business model canvas - a slice, point in time

Q3: business model canvas - articulate what business you are in

Q3: business model canvas - couldn't understand what to do

Q3: business model canvas - develop the concept

Q3: business model canvas - every startup is different

Q3: business model canvas - explain your business to someone

- Q3: business model canvas - feedback
- Q3: business model canvas - for funding applications
- Q3: business model canvas - for my competitors
- Q3: business model canvas - gives way to business plan
- Q3: business model canvas - incubator
- Q3: business model canvas - iterative
- Q3: business model canvas - lacks emphasis on leveraging technology
- Q3: business model canvas - learning tool
- Q3: business model canvas - more layers add complexity
- Q3: business model canvas - multiple industries
- Q3: business model canvas - nice quote
- Q3: business model canvas - not a big fan
- Q3: business model canvas - nothing missing
- Q3: business model canvas - opportunity to build on
- Q3: business model canvas - simplified tool
- Q3: business model canvas - specific company focus area
- Q3: business model canvas - think things through
- Q3: business model canvas: good to revisit it
- Q3: business model canvas: good tool
- Q3: business model framework
- Q3: competitive environment
- Q3: iterative business model
- Q4: go after what will make money now
- Q4: hindsight - more aggressive in sales
- Q4: initial focus
- Q4: initial focus: break even
- Q4: initial focus: business model is an afterthought
- Q4: initial focus: capturing value
- Q4: initial focus: getting paying customers
- Q4: initial focus: getting clients

Q4: initial focus: getting feedback

Q4: initial focus: getting into the market

Q4: initial focus: getting the product right

Q4: initial focus: the problem statement

Q5: challenges:

Q5: challenges: changing how we manage resources

Q5: challenges: customer feedback sooner

Q5: challenges: financial projection

Q5: challenges: getting clients

Q5: challenges: getting pricing right

Q5: challenges: if market experience - getting pricing right is not a challenge

Q5: challenges: lack of experience

Q5: challenges: competitor information

Q5: challenges: should have focused on paying customers

Q5: challenges: still developing the product

Q5: no challenges: great quote

Q6: role of the incubator

Q6: role of the incubator - office space and infrastructure

Q6: value from incubator - access to experienced experts

Q6: value from incubator - access to finance

Q6: value from incubator - access to government

Q6: value from incubator - access to legal professionals

Q6: value from incubator - credibility

Q6: value from incubator - financing resulted in breathing room

Q6: value from incubator - like minded individuals

Q6: value from incubator – networking

**Additional themes:**

Opportunity in Africa

Ownership

Personal background

Pilot

Pitched the idea to venture capitalists

Pressure to commercialise

Pressure to make it

Pressure was off

Previous experience in that market/industry

Private sector accelerator

Problem you are trying to fix

Product needs appropriate business model

Purpose of a business Plan

Read everything about entrepreneurship

Reason for being an entrepreneur

Reason for selecting initial business model

Reason for starting the business

Received funding

Reduce barrier to entry

Risk

Self funded

Share of pocket

Social entrepreneurship

Spending time in front of clients

Starting business - great quote

Still trying to figure it out

Suppliers no reliable

Testing against existing business models

Testing the product with customers

Timing of the business

Tough

Turned down by potential investors

Turned down many times

Uncertain environment

Understand the market

Understood the market

Unique business models do not exist

Unique value proposition

Value proposition

Value proposition is really your product

Valuable

Want to test business idea with market

What is BMI?

Will customers pay for it

Won a competition

Wrong early adopters

## APPENDIX 3: EMAIL CONFIRMATION OF ETHICS CLEARANCE

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

Dear Tertia Barrett

Protocol Number: **Temp2015-02297**

**Title: Business Model Innovation in South African Startups**

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,

Adele Bekker

## APPENDIX 4: TURNITIN REPORT