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Pushing the Limits using Business Model Innovation a Three Pronged Approach and Lessons Learned

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Abstract

In a constantly changing business environment, with increasing digitization and the fourth industrial revolution blurring the traditional value creation boundaries, companies need to explore ways to push the limits to remain competitive. Business model innovation offers companies the dynamic capability to differentiate business models and find innovative revenue streams while reducing costs. As such, the question arises as to how companies may use business model innovation to remain competitive as the world digitizes. Based on a literature review and empirical research involving six case studies, a three-pronged approach in support of business model innovation is proposed. Business model innovation has the potential to push the limits when company executives and academia focus on the interrelation between drivers, processes, and components. Moreover, both effective and ineffective practices based on the research are presented. In conclusion, for companies to use business model innovation in pushing the limits, they need to respond to the business model innovation drivers, adopt a systematic process, and change at least one or more businessmodel components, taking into account the interactions between these three concepts. This article may contribute to existing theory in the field of business model innovation and lessons learned from executives that have pushed the limits of business model innovation.

Keywords: Business Model Innovation; Drivers; Business Model Innovation Process; Business Model Components; South Africa.

1. Introduction

The fourth industrial revolution and the convergence between the digital and cyber physical worlds are having a significant impact on value creation and increasing the need for business model innovation. More so, the COVID-19 pandemic has fueled the growing digitization, with most companies having had to shift services online. In this growing digitization business model, innovation has the potential to support companies to recover from and successfully cope with the COVID-19 crisis [1]. Business model innovation is a global concern, with the World Economic Forum (WEF) highlighting that fewer than fewer than 10% of companies have innovated business models, thus having business models that are economically viable as the world digitizes. However, the majority of company executives are doubtful of their own companies' ability to use business model innovation to harness opportunities from growing digitization [2]. Furthermore, in a majority of companies, the business model is not articulated [3-5]. In addition, the process for managing business model innovation to push the limits and remain competitive is not clearly expressed and companies are mostly using generic business models [3]. This emphasis means that companies have to explore ways to use business model innovation to push the limits to remain competitive within the environment where the financial outperformers put twice as much emphasis on business model innovation as underperformers [6].

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Amazon and Apple are good examples of companies that are using business model innovation to push the limits of remaining economically viable in a digitized world [2]. There is limited published research on approaches and lessons learned from companies that are successfully using business model innovation to push the limits and remain economically viable in a digitising environment. Moreover, Teece (2010) highlights the need for empirical research on business model innovation [7].

Therefore, the question that arises is how companies may use business model innovation to push the limits and remain competitive as the world digitizes. This article aims to ascertain how companies may use business model innovation to remain competitive as the world digitizes and provides some practical insights for company's executives on ground level on operationalizing business models using a literature review and drawing from six case studies conducted in South Africa.

2. Theoretical Background

2.1. Business Model Innovation

Business model innovation refers to either adapting an existing business model component or creating a completely new business model with the aim of enabling the company to push through the limits and compete effectively in a changing environment. Examples of business model innovation include Intel, who, according to Ondrus & Pigneur (2006), despite chip design and technology that differs only slightly from that of competitors, has excelled at partnerships with PC manufacturers, Microsoft, and retailers, resulting in an increased competitive advantage. Another example is Gillette, who pioneered customer relationship innovation by giving away razors and making money on the blades in what is also known as' bait and hook' [8]. Companies like BMW in South Africa use 'bait and hook' by providing car deals and making money on the financial services offered [9]. Another example is the technology giant Google, which innovated the revenue component of their business model by bringing together searchers and advertisers in a unique way, thus creating an entirely new industry with high growth potential, leveraging on unique assets and building a new market space [6]. Another example from South Africa is Capitec Bank, which has created an innovative banking business model by undercutting traditional procedures and using a simple approach that speeds up service processing as well as provides customers with a simplified service compared to that of competitors [10]. Business model innovation is often driven by a number of internal and external factors. In the next section, business model innovation drivers will be examined.

2.2. Business Model Innovation Drivers

Business model drivers may be either external or internal. Sosna et al. (2010) [11] suggest that the drivers are often external. However, Bucherer et al. (2012) [12] put forward the view that the drivers can be internal or external and can also be categorized into threats and opportunities. Meertens et al. (2013) [13] agree that these drivers could be related to threats or opportunities and add that the drivers should have enough expected potential to be worthy of pursuit. The external drivers have been identified as: technological advancement [7, 12, 14-17], market factors [12, 14] and regulatory factors [12, 14, 18, 19]. The internal drivers are growth aspirations [20], resources [12], time management challenges, availability of highly skilled experts, and joy in producing high quality products [16]. These business model innovation drivers are illustrated in Figure 1. The business model innovation drivers will lead to a change in the business model components.

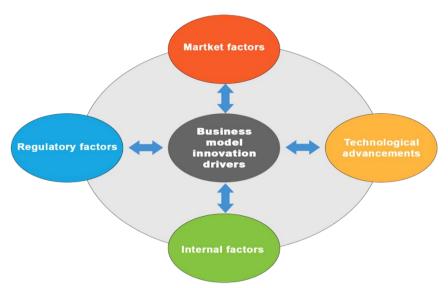


Figure 1. Business model innovation drivers

2.3. Business Model Components

The business model components specify the interrelated set of components which together constituent a business model; Zott et al. (2011) [21] state that each component could constitute a part of a generic business model. There is lack of consensus on what a business model is, and the boundaries for the business model concept has resulted in divergent views on the components of the business model. Andersson et al. (2007) [22] say that a number of ontologies have been developed that state precisely what to include in a business model, while Chandrasekara (2008) [23] highlights that previous research has proposed confusing business model components. In paper, the components are selected from previous studies on business models and business model ontologies.

A business model assists in answering key questions pertaining to the underlying economic logic in a company. According to Osterwalder & Pigneur (2002) a business model identifies what value is offered by the company; to whom the company offers value in terms of one or more customer segments; and how the value is created, taking into account company architecture and partners and relating this to how much profit is made [24]. The business model components are placed in the four main categories ('what', 'how', 'how much' and 'who') of the business model. The 'what' category covers the value proposition and differentiation. 'How' reflects the key activities, key resources and key partners. The 'how much' category represents both the revenue structures and cost structures, while 'who' is the core in the business model covering the target customers, distributional channels as well as the customer relationships that the company maintains with the customers. The business model components are shown in Figure 2.

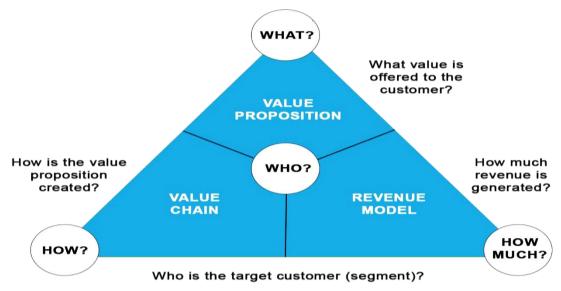


Figure 2. Business model components [8, 25]

2.4. 4I-2M Business Model Innovation Process

Over time business models diffuse and become homogeneous; therefore, to compete effectively, companies need to continuously innovate and sustain the business model [3, 17]. However, determining the next cycle of business model innovation is challenging as financial performance may still be ascending while market relevance is decreasing and, hence, the financial performance influences top management against actively seeking new business identification and development. In continuous business model innovation, the model is designed to counter competitor moves while strengthening company capabilities [26]. The process is often iterative; however, a phase-based approach serves as a useful guideline in undertaking a business model innovation [27]. While there is general agreement that innovation is not linear but complex and dynamic, the normative process model helps to reduce complexity and derive the required activities and decision points [12]. Furthermore, Zott & Amit (2015) highlight that while companies jump back and forth through the steps a generalized process model provides a useful guidance for practitioners [28-30].

Frankenberger et al. (2013) [27] state that only a few scholars have focused on a business model innovation process which consists of phases or process steps. Those scholars propose business model innovation phases that are fairly similar or are complementary [12, 14, 27, 28, 30]. Frankenberger et al. (2013) developed the 4I-framework from innovation management literature and adapted to business model innovation through an exploratory study in 14 cases [27].

However, Zott & Amit (2015) [30] criticized Frankenberger et al. (2013) [27] as having focused on the challenges in the phases rather than elaborating on the activities undertaken in the phases. In this paper Frankenberger et al. (2013) [27], 4I-framework will be used and supported by the Zott & Amit (2015) [30] design process model and

Meertens et al. (2011) [13] to elaborate on the key activities undertaken in each phase of the business model innovation process.

The Frankenberger et al. (2013) [27] framework includes initiation, ideation, integration and implementation will be extended with mobilization and monitoring phases [12, 14, 28] to become 4I-2M framework. The mobilization phase is added because mobilization in the context of business model innovation is seen as creating awareness of the need for the new business model [28]. Such awareness is an important part of obtaining top managementand employee commitment and involvement at the start of the process. Securing explicit top management commitment through the business model innovation process is identified by Elbers (2010) as being essential [31].

Furthermore, early involvement of top management and employees at the mobilization phase contributes to overcoming internal resistance, which is identified by Frankenberger et al. (2013) [27] as the most common challenge in successful business model innovation. Osterwalder & Pigneur (2010) [28] highlight that continuous monitoring, evaluation and adaptation or transformation of the business model is necessary in response to market changes and hence the monitoring phase is added.

The Business model innovation process complexity is influenced by the scope in terms of the number of components that are innovated. As such business model innovation may be either simple or complex with simple business model innovation involving a change in one of the components of the business model, while complex business model innovation could entail simultaneous changes in the various components of the business model [29]. However, both complex and simple business models are important with Zott et al. (2011) [21] suggesting that it is necessary to innovate the business model even if it may not be game-changing for the industry and Taran et al (2015) [29] indicating the change in the business model components may either be radical or incremental. Based on these theoretical review of the three concepts of business model innovation drivers, components and process empirical data was collected to shed some insights on how these three contribution in the approaches that sample companies are using business model innovation to push the limits and remain competitive as digitising environment.

3. Research Methodology

3.1. Research Philosophy and Approach

The study leans towards problem solving in terms of developing an understanding of how companies manage business model innovation to compete effectively in a changing environment as such used a pragmatist philosophy, whose ontological assumption departs from the dualism of subjectivism and objectivism to inter-subjectivity of an informative relationship between inquiry and practice as opposed to a linear relationship where inquiry informs practice [32]. Furthermore, according to Powell (2001) [33] pragmatism's research mandate is not to find truth or reality but rather to facilitate human problem solving. Methodologically pragmatism has no set of methodological requirements but a consequential action knowledge framework to guide inquiry, allowing the researcher to select any method based on the method's appropriateness to the study [32]. As such pragmatism does not require a particular method, or method mix and does not exclude methods [34]. In this paper a mono qualitative research method linked to the abduction theory development approach was used. As according to Saunders (2015) [35] abduction may entail making abductive inference to generate a testable conclusion, with data collection used to explore phenomena and identify themes and patterns. The qualitative approach was supported with case studies and structured interviews to collect data. In addition, theoretical sampling was used to aid transferability. Morse et al. (2002) [36] explain that theoretical thinking requires macro-micro perspectives where ideas emerging from data are reconfirmed in new data, giving rise to new ideas that, in turn, must be verified in data.

3.2. Research Participants and Data Collection

3.2.1. Background Information

There is a growing need for the South African ICT and financial services companies to innovate its business model. As Hanna & Knight (2012) [37] point out, the South Africa ICT sector is highly competitive with many players. Whilst in the financial services the banking sector market boundaries are eroding with a fast paced entry of new digital players that are challenging the status quo and driving unprecedented levels of innovation [38]. Thus South African ICT and financial services sectors present a good opportunity for investigating how companies manage business model innovation to compete due to the intense competition in these sectors. Moreover, both sectors have global relevance with leaders such as Microsoft and IBM operating in the ICT and with the some of the companies in financial services sector in the top 100 in global rankings in terms of the quality of organizations and respective business models. It is in this environment that sample case studies were selected and data collected using structured interviews. The sample case studies were selected based on having previously conducted business model innovation. The data was collected using unstructured interviews lasting between 45 and 90 minutes. A brief overview the participant companies and why the companies were selected is briefly outlined in the next section.

3.2.2. Case Study A: Digital Marketing Company

Identified as a viable case for examining business model innovation as the company was branded as one that values innovation and new thinking, according to information published online. In addition, the company is a leading digital marketing company having won several awards and the company perceives itself as a trail blazer in the digital marketing space. Services provided include search engine marketing, digital advertising, big website developments and training. The products include the content management systems, Webcam, mail systems and CRM systems.

3.2.3. Case Study B: Large ICT Company

This large ICT Company was identified as a viable case for examining business model innovation as the company is an ICT services provider that operates in a business-to-business environment and is branded as having a unique business model. Outsourced IT services and products for mission critical systems are provided to some JSE-listed companies as well as to public and private companies including companies in the mining sector.

3.2.4. Case Study C: Small ICT Company

A consulting services, e-learning and software systems provider to large enterprises in South Africa. Uses the business model canvas to help customers to document business models and identify broad-based economic empowerment (BBEE) opportunities. The company utilise business model concepts to help customers to understandthe impact of BBEE on their business model. Hence, the company presents an opportunity for the researcher to examine how the company innovates the business model to compete effectively, as well as how the company supports customers to manage business model innovation to achieve BB-BBEE compliance.

3.2.5. Case Study D: Financial Services Provider A

Financial services provider A presents a curious case as it is a subsidiary of a global group and is perceived to be unique, focusing on their customers' service requirements. This financial services provider seeks to address customer frustrations while saving them money. It offers banking and insurance services.

3.2.6. Case Study E: Financial Services Provider B

Financial services provider B presents opportunities to examine business model innovation in a company that operates in a niche market. It is newly established and is a renewable energy funding provider with an innovative product that was not being served by the commercial banks as the market is regarded as too small for commercialbanks yet too big to be funded from developer's balance sheets.

3.2.7. Case Study F: Financial Services Provider C

This is a company in a financial services sector where there is a high degree of concentration and interconnectedness with the top five banks. Financial services provider C is one of the leaders in the market, providing both financial services and insurance services. In addition, the company is perceived to be a first mover and disrupter in its market, a view supported by some of the executives in the competitor companies that participated in the study.

4. Findings

4.1. Case Study Results

In comparing the case study results, the business models from the sample companies are perceived to be differentiated from those of competitors to varying degrees. The case companies in ICT services differentiation appears to focus on provision of customized products and services, while financial services providers focus on the uniqueness of products and services. Thus suggesting that in the case of the ICT companies the differentiation is a bit reactive directly customer led while financial services are a slightly proactive predicting customer needs but this is based on their own insight. This may be attributed to the fact that while the companies in the ICT sector provide products that are supported by services and mostly focus on the business-to-business services, those in the financial sector provided a greater variety of services ranging from different banking products and insurances services in a business-to-consumer environment.

The business model challenges faced by the ICT companies include scalability of services, the low barriers to entry and the resulting intensifying competition with some case partners becoming competitors. The 'China price' was found to be eroding margins from the product business models while Indian companies are eroding the margins on the services business models. In the financial services case studies, the business model challenges include the global financial meltdown which resulted in some of the case studies needing to strengthen regulatory compliance requirements, especially for companies that are owned by foreign companies. Competitive pressure is also said to be

increasing with new players, such as retailers, entering the market and the growth of direct online marketing channels in the case of insurance companies. Furthermore, challenges regarding continued survival leading to business model innovation and changes in the global markets were discussed but only in some financial services case studies. The abstraction levels of the business model range from a very detailed product level, the business level and the company level to the much aggregated industry level [39]. In this research the business model level discussions indicated that in both sectors there is a focus on product level, company level as well as in the industry specific business model level.

The business model innovation drivers were continuously monitored in the case studies. The perceptions that the intensity of the external drivers' act as drivers for business model innovation were found to vary amongst the case studies. However, internal factors were perceived to be intense drivers in all the sample companies. These internal factors include entrepreneurial or inspirational leadership, staff quality and in some cases growth aspirations.

An understanding of the business model components was regard to be of value in the sample companies with two ofthe six case studies using Osterwalder and Pigneur (2010) [28] business model canvas to support visualization of the business model. One company used the stickman house analogy to visualise the business model. In the house analogy the components in terms products and services are depicted in the foundation, and how such products and services are differentiated in the roof as well as how the products and services are created as illustrated in the house block in terms of the operations, processes, structure and culture. The visualization also depicts the 'who' of the business model in terms of the target customers, the relationships that are maintained and the distribution channels. A suggestion from one of the case studies was to extend the product and services visualization with "who: could content the value proposition as this would provide a proactive approach to risk in the company products being context as the case of Uber and the local meter taxi example. The detailed case studies results are depicted in the Table 1.

4.2. Lessons Learned Managing Business Model Innovation

A number of effective and ineffective practices in managing business model innovation may be presented as lessons learnt from the case study. One such lesson is using a continuous approach to business model innovation that advocates a tipping point approach to retire the old business model as reflected in this quote.

"A continuous business model innovation process with the old and new business models running concurrently until a tipping point is reached. That is a point where the new business model is generating more money than the old one and at this point you retire the old business model and switch offer to the new business model as such closing off the old business model. And you don't switch overnight and say this is our new model because you are going to destroy value."

The use of subsidiary companies to pilot test business model innovation projects as an effective practice for managing business model innovation. In such an instance, the business model innovation project would be implemented by the subsidiary company on a "trial and error" basis, with the project eventually being brought into the company.

"We put outside with our subsidiaries small innovative experiments that we will eventually bring in."

Furthermore, the use of subsidiary companies was regarded as an effective practice for providing services to the previously unserved customers. For example, Large ICT Company is a provider of ICT services in the business-to-business consumer market, thus in targeting an unserved market a subsidiary with a business model that is different from that of the parent company is used.

"For the unserved customers we have a company called XYZ as we largely support big clients. If we want to support the masses, we need a different business model. That business model, which I have told them clearly is based on automation and self-service, otherwise you need thousands of resources to support that market which is not a sustainable model. So our focus new market is on self-service and automation."

The identification of the type of relationship the company has with the target customer segment was one key issue for managing business model innovation as business models for one-to-one and those that are aimed at one-to-many relationships are different. As the pricing and business models around one-to-many and one-to-one relationships are completely different. This view was expressed as follows:

"I think it is also important for me that business models are applicable to each segment that you are working. We tend to segment our market in two: mid-market enterprise customers and the small-medium-micro customers. Down there we find that the relationship is one-to-many whereas in mid-market and upthe relationship tends to be one-to-one. Then your pricing and business models around one-to-many and one-to-one are completely different".

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Table 1. Case study results

	Case study A	Case study B	Case study C	Case study D	Case study E	Case study F
Case study sector and sise	ICT and a large ICT Company	ICT and a Large ICT company	ICT small ICT Company	Financial Services Small Provider	Financial services a large company	Finacial services a separate unit of a large provider
Why and how business models are articulated	Modelling is done to create shared understanding and support focusing the business and using the business model as reference point and stick m house anology is used	depicted to visualised direction and		Communicated with presentations as a knowledge sharing sessions regarding where the company is moving	Depending on the auidience different methods are used to communicate the business model	Depending on the auidience different methods are used to communicate the business model
Components that are used to visualise the business model	What: value offering and differentiantion, how: key activities, resources and partners whilst how much, cost, revenue and pricing was not modelledin the house anology it was regarded as an important basis for business model innovation	What value proposition and differentiation, How key activities.partners and resources. As well as how much revenue, cost and pricing. Who customer segments, relationships and	What value proposition and differentiation, How key activities partners and resources. As well as how much revenue, cost and pricing. Who customer segments, relationships and channels	What value proposition and differentiation, How key activities.partners and resources. As well as how much revenue, cost and pricing. Who customer segments, relationships and channels and component who will content	What value proposition and differentiation, How key activities partners and resources. As well as how much revenue, cost and pricing. Who customer segments, relationships and channels	What value proposition and differentiation, How key activities.partners and resources. As well as how much revenue, cost and pricing. Who customer segments, relationships and channels
Business model innovation drivers	Market:intense competition, moderate china price, moderate changing customer needs, Technological: massive incremental innovation and disruptive not a driver, regulatory: BBEE moderate and IP mangment maybe in the future, Internal: Intense Entrepreunuria leadership, Intense staff quality intense growth aspirations	conflicting views on disruptive as a driver,regulatory factors: weak IP management, POPI to become intense Internal: Intense	Market:moderate competition and moderate changing customer needs. Technological:intense incremental, intense disruptive as a driver,regulatory factors: moderate to weak IP management, Moderate BBEE:Internal Internal Intense growth aspirations, intense Staff quality.	Market: intense competition and intense un-served customer needs. Technological:intense incremental, intense disruptive, regulatory factors: moderate IP management, intense regulatory compliance with both local and in some cases global regulatory requirement Internal: Intense leadership, Intense growth aspirations, intense Staff quality.	Market: intense competition and moderate changing customer needs. Technological: intense incremental, intense disruptive ,regulatory factors: moderate IP management moderate B-BBEE :Internal: Intense leadership, Intense growth aspirations , intense Staff quality.	Market: intense competition and moderate changing customer needs. Technological:intense incremental, intense disruptive,regulatory factors: moderate IP management moderate B-BBEE: Internal Intense leadership, Intense growth aspirations, intense Staff quality.
Process used to mange business model innovation	Organic, ideation sessions	Organic in some units and structured in some units along Mobilisation, initiation, ideation, integration, implementation and monitoring	"Organic" and develops as things go as the executive meets regurlairly and once a year for strategy development	Organic: Starts with determining the customers frustrations with existing value proposition following the inititiaon and ideation and implementation and monitoring	Seeks to disrupt the market and follows a structured approach to business model innoavtion, mobilisation, initation, ideation, implementation and monitoring	Seeks to disrupt the market and follows a structured approach to business model innoavtion, mobilisation, initation, ideation, implementation and monitoring
Components of the business model that are redesigned	Value proposition component by having focused value proposition and client segments and value proposition customisation	Value proposition customised based	Value proposition customised based	How component key activities and c	Creating shared value with the value proposition	Creating shared value with the value proposition

The effective management of business model innovation to compete entails a continuous business model innovation approach in which the company business model is evolved on an ongoing basis. This was illustrated as follows by one of the participants:

"The core business model for our company is to make money using technologies as ... I think that is the view that the business model is bringing in - that you might be making shoes today but you are not in the shoe making business but what you are trying to do is to solve a customer problem. As such I see the core business of Large ICT Company as making money using technologies."

An additional effective practice in managing business model innovation entails using business model innovation as atheme to bridge the gaps between the various organizational units as illustrated as follows:

"We have been a bit unfortunate in that with all this accountability and measurement that have been in our company for so many years, people have built some islands they have been so proud of. What they not necessarily want to share or work with other people and that is true for many other organizations.

We have now build bridges between all those silos where there is joint benefit for the guys to work together and this is the whole theme of our business model innovation project bring people together ... First time it seems like our data centre infrastructure people joined forces with the application people. So we were able to write an application run it on our data centre that uses our communication network team to be able to deliver video over mobile. We see a converged solution pulling all the necessary different silos together at one offering, as such building bridges between those silos where there is joint benefit for the guys to work together."

Risk management is an effective practice in managing business model innovation to compete effectively as failure tomanage risk in business model innovation in business model innovation could have a "domino" effect as shown by this extract:

"In a business model innovation project anywhere you have a got a weak link - it will have a domino effect all across. So if it is hasn't got a domino effect it is not fully integrated business model. So it is one of those things that you need to get right"

Pricing influences business model innovation; the lessons regarding the effective management of business model innovation is the use of customized pricing as shown in this extract:

"Pricing is not always the same ... as we tend to work on demand type basis and the minute you are selling customized offerings ... so it is very difficult to compare this offering to another because each offering is customized for that enterprise ... However, the company uses sophisticated pricing and guidelines for deviations from the set price. We using different models as to what we are selling to whom. It is not always the same and one of the pricing is based on what is being specified by the customer and we do have guidelines for the deviations from the set price"

5. Discussion

The main conclusion from the research study, supported by both the theory and empirical findings, is that managing business model innovation to compete effectively is a complex activity with three interrelated concepts. The research study examines the three interrelated concepts of drivers, process and components related to approaches to business model innovation. These conceptual framework is illustrated in Figure 3 below.

Firstly, managing business model innovation entails having a clear understanding of the factors that drive this innovation as these have the potential to make the existing business model irrelevant in the market. Thus, companies need to monitor business model innovation drivers that are continuously changing. These drivers in the current study deviate from Sosna et al.'s (2010) [11] suggestion that drivers are mostly external but rather supports Bucherer et al. (2012) [12] views that drivers may be internal opportunities or threats as well as external opportunities or threats.

However, an additional insight generated from the empirical data is that interrelationships between the drivers result in additional complexity. Thus, companies often have to respond to complex, interrelated drivers so as to adapt or totally redesign the existing business model and the underlying business model components.

Secondly, as a response to the drivers, companies need to adopt a continuous business model innovation process that is either organic or structured. Those companies that adopt an organic process perceive that a structured business model innovation process could stifle creativity while those that choose a structured process view such structure as a guide to ensuring the business model innovation process steps are complete as each step is supposed to be part of an effective management of the business model innovation. The size and proximity of the business model design team

could be a factor that has a bearing on the adoption of either of the approaches. In the case where the team is small an organic approach was adopted as reflected in the following extract:

"It is not many of us. Board meeting happens very quickly like let's say we need to spend the whole day somewhere or whatever like now in Durban we are going to work on our business."

"The nice thing of having a small kind of operation... the fund that I manage is run by myself and a colleague in Cape Town, so it's nimble and we're able to actually to modify our strategy and process by the day if necessary and I then meet once a week with my colleagues. Three of them are the senior guys within this business, and once a week we have a feedback session on how the business is performing, the existing assets and then on ad hoc basis we discuss where we need to go and what needs to be done."

Business model innovation conceptual framework

Figure 3. Conceptual framework three pronged approach business model innovation

In both a structured and an organic approach a continuous business model innovation process is adopted as Chesbrough (2007b) and Mahadevan (2004) [3, 17] have recommended as over time business models diffuse and become homogeneous, resulting in a renewed need for business model innovation to enable companies to differentiate their offerings. As such managing business model innovation to compete will be hampered if there is a lack of a defined process for business model innovation. Thus the 4I-2M business model innovation process adapted from Frankenberger et al. (2013) [27] and Zott and Amit (2015) [30] as well as Meertens et al. (2011) [13] supported with contributions from [12, 14, 28] was found to potentially be a relevant framework. The main steps in such a process are mobilization, initiation, integration, implementation and monitoring.

Thirdly, the business model components are redesigned in response to the business model innovation drivers. Such a redesign, as highlighted in Taran et al. (2015) [29], could either be a *simple* business model innovation in terms of only one component of the business model being redesigned, or a *complex* where two or more components are simultaneously innovated. In the sample case studies, both simple and complex approaches were adopted, with simple approaches focusing on innovating value propositions, while complex approaches included redesigning value propositions in tandem with delivery channels of revenue sources where a revenue share strategy with customers was adopted.

Therefore, based on these arguments, the research study proposes a conceptual framework for managing business model innovation to compete in a changing environment. This framework has three major parts. Firstly, the business model innovation drivers illustrated previously in Figure 1. Secondly, the business model innovation process 4I-2M synthesized from Frankenberger et al. (2013) [27] 4I-framework. This 4I-2Mframework has been supported by the Zott and Amit (2015) [30] design process model to elaborate on the key activities undertaken in each step and adapted with contributions from Osterwalder and Pigneur (2010); and Bucherer et al. (2012) [12, 14, 28]. Thirdly, the business model components illustrated in Figure 2, whose conceptualization is informed by the work of Osterwalder and Pigneur (2010) [28], are supported by scholars such as Johnson et al. (2008), Stähler (2002), and Chesbrough and Rosenbloom (2002) [4, 28, 40, 41]. Moreover, the conceptual framework has been reviewed for relevance as part of the research being reported on here, that is, in the sample case studies in the ICT and financial services sectors in South Africa.

Having done this creates a foundation based on which additional elements can be identified that are core to a comprehensive understanding of how companies manage business model innovation.

6. Conclusion

In conclusion, the study uses theory and empirical data to generate insights into three interrelated concepts, namely, the business model innovation drivers, process, and business model components. In managing business model innovation to compete, companies will be hampered if there is a lack of a defined process for business model innovation. Thus, the study provides a theoretical basis for further exploration regarding how these elements contribute to managing business model innovation in order to compete effectively in a continuously changing environment. Furthermore, the theoretical contribution relating to the business model components extends to both the communication of the business model and the companies' approaches to business model innovation. Hence, the paper, by examining the three interrelated concepts (drivers, process, and components) with the communication of the business model and approaches to business model innovation, presents a foundation for the identification of additional elements that are core to a comprehensive understanding of how companies manage business model innovation to compete. In addition, it provides effective approaches for managing business model innovation. These lessons include using a continuous approach to business model innovation that advocates a tipping point approach to retire the old business model. Such an approach would require running the old business model and the new business models concurrently until a tipping point is reached. That is a point where the new business model is generating more money than the old one, and at this point, you retire the old business model and switch over to the new business model by closing off. As well as risk management is practiced as failure to manage risk in business model innovation could have a "domino" effect.

7. Declarations

7.1. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

7.2. Funding

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7.3. Institutional Review Board Statement

Not applicable.

7.4. Informed Consent Statement

Not applicable.

7.5. Declaration of Competing Interest

The author declares that there is no conflict of interests regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the author.

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