

Business process management and innovation dynamics in a South African Bank

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ABSTRACT

Innovation has been a topical focus for banks in achieving strategic value through new products development, efficient processes and improved services. Whilst driving innovation, banks are however faced with barriers such as inertia exerted by legacy systems, unsupportive organisation structures and restrictive mindsets that are too risk avoidant. Thus, how innovation is managed by banks has become critical in overcoming these barriers. Despite business process management (BPM) having an overlapping objective to that of innovation management in achieving efficiency and lowering costs for an organisation, it has developed as a separate discipline to that of innovation management. The purpose of this study is the exploration of integrating BPM principles in innovation management in banks to overcome barriers and provide practical recommendations. The study further aims to contribute to the gap that exists between the body of academic knowledge and what innovation managers are aware of in a South Africa bank context.

In this study, data were collected through semi-structured interviews with senior employees within a South African bank. The data were further analysed using a qualitative research method to identify and interpret themes based on interviews with subject matter experts and managers in the South African bank. The study has identified the key layers from the total innovation management paradigm and BPM principles that can enable the innovation performance for a bank and raises further areas that can be explored.

DECLARATION

I, Kai-Ruin, Chang declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in Innovation at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name:

Signature:

Signed at Johannesburg

On the 20th day of Jan 2023

DEDICATION

I dedicate this thesis and the subsequent qualification to my mother Ms Huei Nuan, Lai who has worked tirelessly in her life to ensure that I achieve my fullest potential in life.

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The research journey has made me become fully appreciate the challenge of working and studying at the same time. It is with this in mind that I would like to express my gratitude to my partner Bongani Michael Khumalo, my mother, my sister, close friends - Chingy Wang, Sam Hatane, the Chau's, Michael Qian, Grema Ogboru, Itumeleng Dlamini, Ndivhuwo Ramukumba, colleagues Terrance Njikelana and Mpho Tshweneyame who have shown their guidance, love, support, and encouragement in the times of need. It is with all your support that made this possible. To my supervisor Mjumo Mzyece, your insightful contribution and support is much appreciated.

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CHAPTER 1. INTRODUCTION

1.1 Purpose of the study

This study undertakes to explore how the banking industry in South Africa can effectively enable innovation through business process management. The aim is to gain an in-depth understanding of the interconnectedness between business process management and innovation management, as well as how business process management can best enable innovation with an objective of enhancing the organisation's competitiveness and sustainability. The analysis and findings that emerge from this study will help banking organisations understand the critical aspects of business process management in the context of innovation management and highlight areas that contribute to the success or failure of organisations' strategic objectives.

1.2 Context of the study

With the rapid change in business environments and technology, organisations are constantly faced with dynamic market structures, differing market conditions and varying customer needs. Strategic objectives such as process efficiencies, increased productivity, improved or new products and services enable organisations to lower costs, remain competitive, offer competitive value propositions to customers, earn higher profits and gain market access. In light of these challenges, innovation has been cited to be one of the key enablers for organisations to obtain competitive advantage (Teece, 2010; Trkman, 2010). Organisations with superior innovation management applications have proven to be able to achieve better innovation performances and successes that result in economic and social return (Kalay, 2015).

It is against this background that the field of innovation management has been receiving increased attention over the past decade (Thongpapanl, 2012). Kahn (2018) defines innovation management as the ways in which innovation is managed and should be organised so that the desired innovation outcomes are achieved. Dereli (2015) asserts that innovation management is a

multidimensional concept that encompasses knowledge, people, vision, technology, leadership and organisational structure that needs to be managed effectively to achieve the desired outcome.

Despite the indispensable strategic value that innovation offers to organisations, selecting the suitable innovation management approach is a complex and challenging task for innovation managers in practice. As a start, the lack of clarity and common understanding around innovation as a concept as it consists of different facets and dimensions initiates the confusion of the innovation management selection exercise. Innovation is a new or improved product or process (or combination thereof) that differs significantly from organisations previous products or processes and that has been made available to potential users (product) or brought into use by the organisation (OECD/Eurostat, 2018). Kahn (2018) on the other hand defined innovation as an outcome, process or mindset. Different levels of innovation ranging from incremental or continuous improvement to radical innovation introduces another dimension to be considered when establishing the appropriate management approach.

The field of innovation management is still evolving and covers multiple disciplines. In an extensive review study performed, it was found that innovation management spans across seven subject categories such as project management, organisational strategy, knowledge management, product management, types of innovation, technology innovation and open innovation (Lopes et al., 2016). The study also noted that innovation management is still highly related to product development in its logic and performance metrics.

Tidd and Thuriaux-Aleman (2016) pointed out that although a proliferation of research exists for innovation management, it lacks coherence and is not grounded on fundamental theories or problems. The suitability of innovation management approach is context-specific which depends on factors such as the types of industries, organisations or innovation. There is no one-size-fits-all innovation management approach, when selecting the best practice, it is highly dependent on a range of factors.

While organisations leverage innovations to achieve their strategic objectives, the innovation management process remains pivotal to achieving the desired outcome. Business process management (BPM) which is the art and science of overseeing how work is performed in an organisation to ensure consistent outcome and to take advantage of improvement is the fundamental base on which every innovation effort should be premised on (Mendling et al., 2013). Perspectives such as how BPM serves as a key tool to acclimatising organisations to a constantly changing environment (Del Giudice et al., 2018); organisations that have a business process orientation are as a result linked to superior innovation performance (Tidd & Thuriaux-Aleman, 2016) and how BPM unlocks value for an organisation specifically when it is technology related (Kirchmer et al., 2016). All these perspectives point towards the interplay and interconnectedness between the two fields and the importance of this nexus in driving innovation for an organisation. It is with this understanding that this study aims to gain further knowledge in the interplay between business process management and innovation management.

1.3 Research problem

Business process management has been fundamental for organisational competitiveness and high performance, however with the emergence of the digital era organisations need to re-think the role of BPM in line with innovation management. Since the late 1980's, BPM has however developed as a separate phenomenon from innovation management. Many scholars have investigated the application of BPM as an approach to manage process transformation and incremental process improvement efforts (Hammer, 2015). Hammer (2015) further argued that the concept has subsequently evolved into a principle-oriented discipline focused on the implementation of efficient and effective business processes, as opposed to being technology-focused driven by innovation. This further lends support that BPM and innovation management have evolved as mutually exclusive concepts. While some scholars acknowledge the link between BPM and innovation management, limited studies have however, investigated business process innovation and models that fit the context of service industries such as banks (Van Looy, 2021).

This study therefore seeks to address this gap in the literature by investigating the link between BPM and innovation management. This is done through an analysis of how BPM potentially unlocks value and enhances the management process of innovation for an organisation specifically when it is embedded in technology (Kirchmer et al., 2016), within the context of the South African banking industry. Furthermore, the study will also investigate how business process management principles can be applied to best enable the implementation of innovation management, with the aim of contributing towards the development of a business process innovation model that fits the context of the South African banking industry. This study thus seeks to address the following research questions:

- i. How best to integrate innovation management framework with business process management principles in overcoming the barriers of innovation management activities in a South African banking context?
- ii. Which of the business process management principles are the most relevant in overcoming the barriers of innovation activities in a South African banking context?
- iii. What is the nature and application of business process management in enhancing the implementation innovation management activities in a South African banking context?

1.4 Research objectives

The primary aim of this study is to investigate the enablement of innovation management through the use of business process management principles within the context of the South African banking industry, with the following secondary research objectives:

- i. To evaluate whether the integration of innovation management framework with business process management principles overcomes the barriers of innovation management activities in a South African banking context;

- ii. To analyse which of the business process management principles are the most relevant in overcoming the barriers of innovation activities in a South African banking context;
- iii. To determine the nature and application of business process management in enhancing the implementation innovation management activities.

1.5 Significance of the study

Studies have highlighted the gap that exists between the body of theoretical knowledge on innovation management and what innovations managers are aware of (D'Alvano & Hidalgo, 2012; Tidd & Thuriaux-Aleman, 2016). The knowledge gap has resulted in varying degrees of innovation management adoption and application across the different industries. This gap creates opportunities for organisations to reach their full innovation potential when the appropriate levers are effectively managed. Practices such as use of external sources, technology, review of innovation portfolio and mobilising the entire organisation for ideation are associated with superior innovation performance. The best innovation management practice however is firm-specific. Limited research has been devoted to the context of South African banking industry as existing studies are largely manufacturing industry or product focused (Eveleens, 2010).

This study aims to contribute to this literature gap through providing an analysis of the nature and relationship between innovation management and BPM within the banking industry and how BPM can be a key enabler in the application of innovation management. The study will further contribute towards the practical recommendations that can be used and adopted for the banking industry in pursuit of guiding innovation management efforts through BPM in achieving the intended outcome.

1.6 Delimitations of the study

Delimitations are the boundaries within which the study will operate. The delimitations for this study are:

- The study has been limited to the employees that are in the upper band that involves, executives, senior managers, general managers and subject matter experts involved in the business process management and innovation management practices within one of the four large banks in South Africa; and
- The study is limited to considering only the internal organisational perspective as it relates to the implementation of banks' business process and innovation initiatives.

1.7 Definition of terms

Key definitions used in this study are not uniformly adopted by the various researchers in the respective fields and consequently different understandings are applied. In order to align the understanding and application, the following key terms are defined as follows for the purpose of this study:

1. **Business process management (BPM)** is the art and science of overseeing how work is performed in an organisation to ensure consistent outcome and to take advantage of improvement opportunities such as innovation where it can be once-off or continuous.
2. **Business process re-engineering (BPR)** is to radically redesign business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service and speed, arguably a form of business process management.
3. **Innovation** is a new or improved product or process (or combination thereof) that differs significantly from organisations previous products or processes and that has been made available to potential users (product) or brought into use by the organisation (OECD/Eurostat, 2018).
4. **Innovation management** is process that includes core elements of ideation, concept development, concept evaluation and selection, as well as development and implementation. Collaboration and interlinkages

between organisational functions and stakeholders is of paramount importance.

5. **Prioritisation** is an effective process to ensure that the best ideas are chosen, first for development into business concepts and then into new products, services, process and/or business models.

1.8 Assumptions

The study will be performed by collecting data through interviews with key stakeholders involved in business process and innovation management in the bank and the following assumptions will be made:

- Business process management and innovation management is of strategic importance for the banking industry;
- Participants in the study are knowledgeable about business process management and innovation management as well as related organisation practices and strategies;
- Participants will provide answers to questions which are accurate, and a subjective measure of competitive advantage has a degree of accuracy;
- It is assumed that the previous business process and innovation management research albeit using different concepts has relevance to this research and is an appropriate lens with which to analyse and discuss the topic; and
- There is a relationship between the appropriate application of business process management, innovation management and organisation performance.

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

This chapter begins by understanding how the different innovation management (“IM”) models have evolved over the decades with their gaps and improvements. Innovation management started off as a linear and closed system process evolving into the most recent dynamic and open IM model. Despite the model improvements, it has remained largely separate to BPM as a discipline as limited references have been made across the two disciplines. The understanding of the different innovation management models is followed by innovation management from a financial services perspective and the key challenges that it typically faces. Innovation management in financial services is generally supported by both formal and informal organisational structure and managed through a process with distinct gates. The literature review conducted under this study also revealed that key challenges faced by financial services organisations around innovation management typically includes unsupportive organisation structure, restrictive mindset, legacy systems, high risk avoidance and not sufficiently exploiting ideas. The chapter continues to introduce BPM as a discipline that has evolved from a workflow automation in manufacturing to a holistic management field that focuses on managing organisational change. Through the evolution process, various tools, definitions, techniques and mechanisms were developed to define BPM however these have created confusion and surfaced further gaps. As a result, best practice principles for BPM have been introduced by leading scholars as a remedy for the challenges.

From the literatures reviewed, the relationship between BPM and IM has often been implied, the chapter aims to elevate the importance and benefits of the intersection of the two disciplines. Lastly, the chapter ends by reviewing the total innovation management theoretical model as the lens for the study as it involves the various elements of innovation management for an organisation. The chapter also explicitly includes management of innovation which suggests new ways or techniques at managing innovation which is what the study aims to investigate by incorporating BPM principles into IM to enable a better innovation performance.

2.2 Innovation Management

Today innovation is no longer an option but an imperative that businesses need to undertake in order to remain competitive and sustainable. Innovation management which is the process to convert business opportunities into products and services for the market is key to an organisation's competitiveness (Tohidi & Jabbari, 2012). There is a vast literature describing the process of converting ideas into products and/or services (du Preez & Louw, 2008; Eveleens, 2010; Lopes et al., 2016; Rothwell, 1994). From these studies, the processes of managing innovation have evolved from a simple linear model to complex interactive system models. Innovation management processes have thus evolved to take into consideration the concept of systems thinking. Through the application of system thinking, organisations ought to acknowledge that they are no longer confronted with business problems that are independent of each other, but rather confronted with dynamic situations that consist of complex systems that are made of dynamic problems that constantly interact with each other (Meadow, 2009).

Poli (2013) and Cillier (2000) therefore emphasised the difference between complicated and complex systems, and further advocated for a non-linear approach in dealing with complex problems and systems. According to Poli (2013) and Cillier (2000), complicated problems often result from causes that are distinct and can be individually analysed to arrive at a solution. Such problems can therefore be dealt with 'piece-by-piece', creating a proportionate output for each input that goes through the system (Poli, 2013). On the other hand, complex problems originate from a network of multiple interacting elements and causes that cannot be distinguished and analysed individually and must hence be addressed as an entire system instead of in a piecemeal way (Poli, 2013; Cilliers, 2000). Small inputs into such complex systems thus result in disproportionate effects. Organisations are therefore, confronted with complex problems that require a holistic and systematic approach in solving them, hence the application of innovation management cannot be independent from business process management. It is in this light that the evolution of the different generations and types of innovation process models adapted a systems thinking view, in

acknowledging the interdependence and interrelatedness between organisational functions with the ultimate aim of driving a systematically managed innovation management approach.

Table 1 below provides a summary view of the different types of innovation process models.

Table 1: Development of Innovation Models

Model	Generation	Period	Characteristics
Technology Push	1 st	1950 to mid-1960s	Supply push, R&D and technological advances focused
Market Pull	2 nd	Mid-1960s to early 1970s	Focused on the needs of the market which drives the innovation
Coupling	3 rd	Early 1970s to mid-1980s	Includes feedback loop and emphasis on the interaction between R&D and marketing
Interactive	4 th	Early 1980s to early 1990s	Parallel innovation activities across organisational functions
Network	5 th	1990s	Knowledge accumulation, external linkages and networking
Open	6 th	2000s	Internal and external ideas and paths to commercialisation

Source: Adapted from (du Preez & Louw, 2008)

During the two decades post World War II, the developed economies enjoyed unparalleled growth that was driven by rapid industrial expansion. The first

generation of innovation process model was developed during this period which focused on technological advances and research and development (R&D) efforts that introduced new products for the markets (Meissner & Kotsemir, 2016). The technology led products for instance included electronic computing, textiles and steel. du Preez and Louw (2008) assert that this innovation process was linear whereby the process moved sequentially from scientific discovery, technological to commercialised products in the marketplace. Under this simplistic linear technology push model, little attention was given to the role played by market demand. Besides the linearity, Balconi et al. (2010) identified the lack of interactions amongst the activities and the sequential process assumption as key critiques of the innovation process. Although some of critiques are valid, Balconi et al. (2010) claim that many were unwarranted and have created confusion rather to better understanding of the model.

In the mid-1960s, competition in the developed economies intensified with many products been available, the innovation process accordingly shifted its focus to the demand of the market than technological efforts (Meissner & Kotsemir, 2016). With this innovation model, the market is essentially the source of ideas for directing technology which played a mere reactive role in the sequential process model. Di Stefano et al. (2012) further established that market's needs are an important source of innovation for organisations to differentiate their product offerings and achieve growth. In the study, technology is however also a key factor for innovation, in fact they found that internal organisational resources, knowledge and competence is a crucial dimension in providing a synthesis of technology and demand. While being "market pull", the second-generation innovation process model remains linear which faces similar critiques to that of the technology led model such as minimal consideration for the interrelatedness of the interactions of complex systems (Balconi et al., 2010).

The coupling model which is the third generation of innovation process remained sequential however the model brought in a feedback loop between technological capabilities and the marketplace (Mowery & Rosenberg, 1979). Mowery and Rosenberg (1979), therefore, concedes that this model has evolved from a simplistic linear model to an organisational framework that recognises the

interaction between different factors. Project executions and corporate level factors such as accessing external know how, sound cross-functional co-ordination and top management support and commitment were considered as part of the model (Rothwell et al., 1974). Rothwell (1995), however argues that despite the additional components, the model is limited in addressing functional integration within an organisation.

To address the functional integration gap cited by du Preez and Louw (2008), the fourth-generation interactive innovation model was introduced, which views the innovation process as parallel activities across organisational functions (Rothwell, 1995). This interactive innovation process model place emphasis on building external linkages and integrating it with in-house functions simultaneously rather than sequentially (Rothwell, 1995).

According to Kotsemir and Meissner (2016), the fifth-generation network innovation process model aims to address the complexities of innovation by applying system thinking. In introducing the fifth-generation network model, Rothwell (1994) was aiming to address the shortcomings of the earlier generation models, which overlooked the effects of the interactions by the different elements within a complex system. Docherty (2006), thus suggests that innovation takes place within a closed network of stakeholders and factors that are internal and external to the organisation. There are, therefore, inevitable linkages between the external and internal stakeholders, as well as factors that are key in driving innovation.

The latest innovation process model maintains a holistic system view in its approach; however, Docherty (2006) argues that it suggests an open system where ideas and development can be sourced externally and contests that open innovation system is contrary to the traditional path for innovation where ideation and build is internal to an organisation. Networking, openness and collaboration lies at the core of the model, hence, that drives internal growth by accessing a much larger base of ideas and technologies.

It is evident that innovation management process has evolved from linear to network model that considers multiple factors to drive successful innovation

implementation (du Preez & Louw, 2008; Eveleens, 2010). The core elements of innovation process, therefore, includes ideation, concept development, concept evaluation and selection, as well as development and implementation (du Preez & Louw, 2008). Collaboration and interlinkages between organisational functions and stakeholders is of paramount importance. The models do not prescribe the situations or contextual scenarios for their application but rather more generic factors that need to be considered and used. Hidalgo and Albors (2008) found that a range of innovation management tools are used by organisations with the most popular being project management tools and techniques. Process improvement techniques involving benchmarking, workflow and business process re-engineering also scored high in usage which is consistent as the objectives such as increasing efficiency, reducing costs and were key to organisations. Hidalgo and Albors (2008) supports the notion that no one-size-fits-all tool exist to drive innovation but rather a combination of tools should be used in order to address the need of the situation. This view is further supported by Wallin and Hacklin (2013) where that the body of knowledge of two distinct fields, such as innovation management and business process management can be integrated to unlock the value of innovation management. While integrating the knowledge, special attention also needs to be given to inter-organisational and the human capital.

Innovation management is a complex process with many issues and variables to address. It is in this pursuit for best practice where Cormican and O'Sullivan (2004) established that organisations that were effective in driving innovation had in common focused vision, strong leadership and customer orientation. Furthermore, employees' contribution to innovation was widespread at all levels and high level of proficiency of exploiting innovation ideas to products and services were observed in the successful organisations. Communication and project planning were areas that required more attention to support communication across different stakeholders and portfolio selection. The study asserts that the best practice for innovation management is a continuous process improvement journey rather than a destination.

López-Mielgo et al. (2009) discovered that introducing business process management components such as total quality management promoted innovation particularly prominent in process innovation. This is contrary to the view held by Smart, Maddern and Maull (2009) that standardisation and quality control activities eliminate creativity from innovation. Organisations with innovation capabilities on the other hand has an increased propensity to implement quality management tools leading to standardisation of new products and processes. To remove the barriers and obstacles to innovation as organisations engage in innovation activities, D'Este et al. (2012) recommended that innovation practitioners focus on driving better management at a micro-level to minimise the impact of financial or cost barriers. This notion supports the argument by Das et al. (2018) for organisations to consider innovation management and business process management as two interrelated elements to the holistic system of innovation management, as opposed current approach where the two functional areas are viewed as independent of one another.

2.2.1 Innovation Management in Financial Services

The financial services industry particularly the banks have a key role to play in driving growth for economies. The environment of the industry is challenged by new regulations, technologies and varying customer demands (Hobe & Ruth, 2015). In response to these macro-environmental factors, banks have been digitising business processes and products in the last few decades. Innovation management is one of the key enablers for banks to meet their strategic objectives in the evolving environment and remain competitive. Conversely, Drew (1995) found that the correlation between speed of development to profits is negligible as customers become confused by the plethora of products.

Innovation management, a process that involves time and effort to converting ideas into marketable products and services is of strategic importance to banks (Sundbo, 1997). Vermeulen (2004) has established that innovation management is a task that occurs within the strategic framework of a financial services organisation which helps to originate and guide innovation efforts from the top management. Hobe and Ruth (2015) likewise assert that banks will have to define

what innovation means for themselves with a clear innovation plan. It is also important that reference to the public policy framework is made, especially the banking framework to establish an agreed innovation process supported by continuous idea analysis and constant measurement of results with risk mitigation and compliance control.

The most common organisation structure that supports innovation management in financial services is often dual consisting of both being formal and informal structures (Vermeulen, 2004). Hobe and Ruth (2015) add that focused human resources are dedicated in managing innovation either in a centralised function or distributed across the business units in the financial services organisations. Banks generally do not have a R&D function in driving innovation however marketing function or project management function is involved in leading the product development. Efforts led by marketing or project management are however often challenged as the functions do not have in-depth understanding of products and processes. The composition of a bank's innovation team is normally multidisciplinary or cross-functional whereby different expertise and knowledge is put to use. The cross-functional setup of innovation in banks, poses the challenge of locating innovation in a specific function for ownership and accountability. Drew (1995) asserts that banks should consider outsourcing to partner companies or fintech start-ups to achieve absolute efficiency and cost-cutting.

Scholars have argued that product development is to a large extent similar between manufacturing and services organisations. Despite the similarities, distinctions such as the intangibility of how banks' products and services are produced and consumed in the presence of the customer are worth noting. The intangibility of financial services products, by extension renders prototyping of ideas difficult and hence requires strong communication amongst team members to bring the idea to implementation. However, Vermeulen (2004) found that team members are normally involved on a part time basis and do not communicate outside formal meetings which poses a challenge to the success of innovation efforts in banks. The simultaneity of the products calls for stronger customer involvement during the build and implementation phases of innovation to incorporate their feedback.

The innovation management process in banks is typically formalised and involves four key distinct gates or stages starting with idea generation and ending with implementation (Hobe & Ruth, 2015). Vermeulen (2004) asserts that it is important that **ideas** come from all individuals within the organisations with no preferences or elimination at the early stage. This is then followed by the idea **filtering or transformation** stage which determines if the idea will be sponsored by the top management of the banks given its proposed prototype and projected business value. The next stage is **built**, once the idea is approved, the necessary team members are put together to develop and test the marketability of the product with a group of customers. Lastly, for **implementation**, top management approves the launch of the new commercial product or organisation change. **Performance measurement** of the innovation outcome is key to include in the last stage of the process in order to assess the success and return on the investment made. Although, the described innovation management process may seem linear, it is rather complex and recursive with multiple feedback and dependent factors.

Given innovation's link to organisation's success, studies in the field have been around aspects that lead to the successes or failures of innovation efforts. Vermeulen (2004) expresses that similar factors influence the success for financial services organisations as those that impact manufacturing firms. The services and products for banks are however intangible which may render it difficult to distinguish between process and product innovation. Das et al. (2018) assert that multi-disciplinarity is a key barrier to product development in banks as there is often insufficient capacity and lack of clarity of where the innovation needs to be located. Furthermore, most banks are diffused with stability and as a result, employees seemingly are trapped in the past and present. People in these companies have to get used to a special product development function and its importance. Similarly, Drew (1995) asserts that important changes such as underlying values and beliefs and information technology ("IT") are needed for organisations to become more innovative. A lot of attention should be given to changes in the underlying values and assumptions system of the organisation and adjusting the conservative perspectives on IT. Considerations such as

investment in new state-of-the-art IT need to be made to increase the innovative potential of many banks.

2.2.2 *Challenges of Innovation Management*

The importance of innovation is well understood for an organisation's performance and sustainability; however, innovation efforts face many challenges and obstacles in its development and commercialisation. The innovation barriers fundamentally impede or diminish innovation activities in an organisation. Two different approaches have been largely pursued, one approach being to better understand the drivers that lead to success, or the other approach being focused on overcoming the challenges faced by organisation in achieving innovation outcomes. D'Este et al. (2012) assert that organisations that pay more attention to overcoming the innovation barriers have better innovation performance than those that focus on the factors that enable innovation.

Various methods have been suggested in classifying innovation barriers; one particular popular method being external vs. internal factors (Hölzl & Janger, 2012). External factors would be focused on the organisation's macro-environment and its features such as regulations, technology changes, government or customers. Internal factors by contrast focuses on organisational culture, structure, resources, skills and competence. Moreover, D'Este et al. (2012) assert that it is important for organisations to distinguish between revealed barriers and deterring barriers to innovation. Revealed barriers are the difficulties that organisations experience as they engage in innovation activities around the innovation process and learning experience. Detering barriers on the other hand are obstacles that prevent organisations from committing to innovation. Organisations' managements need to ensure that policies at a micro-level remove the revealed barriers to innovation.

In the literature review done by Sandberg and Aarikka-Stenroos (2014), it was established that three key barriers facing large organisations around innovation are all internal in nature whereas external barriers are more important for small to medium size enterprises. Firstly, organisational structures are unsupportive of innovation due to misalignment of hierarchy, authority, mandate and

communication between the innovation team and main stream team. Similarly, Das et al. (2018) found that organisation structure does not support innovation efforts for large financial services organisations. The second key barrier is a restrictive mindset exists in the form of strong routines and structures that screens out information that does not relate to the organisation's current actions (Sandberg & Aarikka-Stenroos, 2014). Das et al. (2018) along the same line, identified that organisations do not sufficiently exploit new ideas by not developing new idea into a finished product. Furthermore, Das et al. (2018) found that financial services organisations displayed overzealousness on risk management where too much focus is placed on risk avoidance possibly as a result of financial services organisations often being highly regulated. The last key barrier highlighted by Sandberg and Aarikka-Stenroos (2014) was the lack of discovery competence where the main focus is on meeting the needs of current market and not of their future needs. In contrast, Das et al. (2018) did not find this to be a barrier but instead noted that the absence of a R&D function in financial services led to lack of focus and strategic alignment across the different innovation efforts. In addition, existing IT system architecture within organisations presents as a hurdle for innovation efforts as employees tend to protect what is there and resist new implementations (Das et al., 2018). It is key to consider certain barriers arguably impacts the entire innovation management process and not specific phases such as inertia of local system, restrictive mindset, unsupportive organisation structure and overzealous risk management.

2.3 Business Process Management

Through the introduction of technological innovations during the first industrial revolution, the organisation of work has improved, and the use of information has increased resulting in rise in productivity (Drucker, 1999). This phenomenon was not purely the association with physical production systems but there were also supporting business processes and services that enabled the productivity progression throughout the different industrial revolutions. In a broad sense, business process management (BPM) can be arguably viewed as having its origin as early as the first industrial revolution which supported the use of water and steam power to improve production efficiencies and outputs.

Various techniques such as workflow and automations were introduced in the 1970s to reduce manufacturing lead time in order to get the products to customers more efficiently. In 1980s, concepts such as total quality management, Six Sigma and lean manufacturing were established to further improve the quality of goods to a high standard while incurring the lowest possible cost. Another BPM tool, business process reengineering (BPR) gained prominence in the 1990s where Hammer's (1990) publication suggested that organisations should reengineer their business processes rather than automating existing business processes that have embedded deficiencies. BPR is to radically redesign business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service and speed (Hammer & Champy, 1993). Business process reengineering was particularly important during the decade of the 1990s when organisations were making significant investment in information technologies to improve their performance but were not realising the expected benefits.

Today, BPM has evolved into the management discipline as a holistic practice in driving business transformation and organisational change. This comprehensive practice considers a range of broad factors such as alignment to organisation strategies and objectives, roles and responsibilities of actors, integration with information technology (IT) and culture within the organisation when undertaking BPM initiatives. Dumas et al. (2013) views BPM as the art and science of overseeing how work is performed in an organisation to ensure consistent outcome and to take advantage of improvement opportunities such as innovation where it can be once-off or continuous. Business process management in a narrower sense includes specific activities such as identifying and documenting business processes, defining key performance indicators (KPIs) for measuring and monitoring process performance, and implementing means for continuous process improvement and innovation (Hammer, 2015).

2.3.1 *Business Process Management Principles*

In an attempt to provide clarification on the many definitions that exist for BPM, prominent scholars Vom Brocke, et al. (2014) suggested a number of best

principles for BPM in order to align the common research understanding and promote its practical use. To begin with, BPM needs to be context-fit for an organisation and consider factors such as size, industry, market, strategy and objectives. This key principle is further elaborated by Vom Brocke et al. (2016) indicating that context impacts the effectiveness and efficiency of BPM implementations and needs to be considered at the early stages of implementation. Jones and Linderman (2014) by extension established that competition intensity as a contextual factor of an organisation explains the direct impact that BPM has on its efficiency and innovation particularly when new processes are designed.

Continuity as a key principle for BPM supports organisational change initiatives that are not once-off but continuous and a permanent practice supporting businesses long-run goals and objectives (Vom Brocke, et al., 2014). Developing and building in-house BPM capabilities which focuses on employees' competences and skills instead of using external consultants allows BPM to play an enablement role in an organisation. Business process management may have its origin from IT and a process-oriented focus, Vom Brocke, et al. (2014) stated that it is crucial for BPM to be holistic in its approach where it is not isolated to specific functions in organisation or where the scope is narrow-focused. Similarly, Segatto et al. (2013) found that BPM embodies the characteristics of systemic approach that involves interfunctional teams that have different purposes.

Buhl et al. (2011) emphasised the importance of process management being value-oriented which is to maximise shareholder value in the long run. Organisations should include value-oriented measures as part of performance measurement for its BPM goals and business. Similarly, Vom Brocke et al. (2014) highlighted that BPM needs to be purposeful and simplistic in nature. BPM initiatives that are purposeful means that they are strategically aligned and contribute to organisational value. This aspect may sound easy in theory, however often forgotten in practice. Economically, the amount of resources in terms of money, time and effort should balance the outcome of a BPM initiative thereby ensuring that it remains simplistic and not over-engineered.

Embedding BPM formally in an organisation's structure with a centralised function, roles and responsibilities is essential for overcoming entrenched habits and driving a customer-centric focus (Vom Brocke, et al., 2014). In having a BPM centre of excellence, the function plays an important role in governing the BPM efforts and assists in increasing the BPM maturity of an organisation (Rosemann, 2014). Business process management initiatives tend to trigger changes that are faced with resistance as new jobs or processes are introduced; it is therefore essential to involve all stakeholder groups that are impacted by the change to reduce the resistance (Vom Brocke, et al., 2014). Through their involvement, employees foster a sense of ownership and partake in the redesign and adoption of the processes. Balancing the right amount of collaboration against the cost of engaging stakeholders is key in getting commitment and lowering the level of resistance. Joint understanding as another key principle for BPM allows different stakeholders to view, frame and analyse organisations systems with the understanding of seeking improvements for its processes (Vom Brocke, et al., 2014). Process modeling is one of the ways where graphical representation of the processes can be shown to employees to obtain common understanding but should not be overly complex. From a technology perspective for BPM, Trkman (2010) points out that the organisation should carefully align its business processes with the support of technological implementations and that only investments that are fit for purpose to the current and future business process needs will contribute to the organisation's sustainable competitive advantage. Post implementation support is vital in realising the envisaged benefits otherwise processes may remain manual with no change due to not utilising the functionality. This view is well supported by Vom Brocke et al. (2014) in their last BPM principle that technology appropriation further fosters efficiency and effectiveness of business processes. Organisations however need to find better ways to align business and IT to co-create value and IT should not be treated as an afterthought.

The table below summarises the ten key principles that Vom Brocke et al. (2014) recommends as best practice for BPM.

Table 2: Ten principles of good BPM (Vom Brocke, et al., 2014)

No.	Principle	Description of positive manifestation (+) and antonym (–)
1.	Principle of context-awareness	+ BPM should fit to the organizational context – It should not follow a cookbook approach
2.	Principle of continuity	+ BPM should be a permanent practice – It should not be a one-off project
3.	Principle of enablement	+ BPM should develop capabilities – It should not be limited to firefighting
4.	Principle of holism	+ BPM should be inclusive in scope – It should not have an isolated focus
5.	Principle of institutionalization	+ BPM should be embedded in the organizational structure – It should not be an ad-hoc responsibility
6.	Principle of involvement	+ BPM should integrate all stakeholder groups – It should not neglect employee participation
7.	Principle of joint understanding	+ BPM should create shared meaning – It should not be the language of experts
8.	Principle of purpose	+ BPM should contribute to strategic value creation – It should not be done for the sake of doing it
9.	Principle of simplicity	+ BPM should be economical – It should not be over-engineered
10.	Principle of technology appropriation	+ BPM should make opportune use of technology – It should not consider technology management as an after-thought

Despite the guiding principles, the implementation of BPM is not without challenges, Vom Brocke et al. (2016) are of the view that high failure rates of BPM are as a result of methods and tools not being context-fit for an organisation. A one-size-fits-all approach leads to failures and the approach should rather be contextual, situational and continuously adapted. However, to locate the “right” BPM approach comes with difficulty as there is a lack of theoretical grounding for BPM where there is no common understanding (Trkman, 2010). Insufficient empirical validation of the various BPM models and the application methods is another concern where there is limited practical recommendations (Tohidi & Jabbari, 2012). Aparecida da Silva et al. (2012) found that when organisations transition into a process-oriented management, organisation’s people and culture are the biggest barriers to the change. Alotaibi and Liu (2016) further highlighted that the misalignment between IT function and business goals poses challenges when key business processes are being modelled.

2.4 The relationship between Business Process Management and Innovation Management

The benefits of combining business process management and innovation management considerations in achieving improved innovation performances and organisation objectives are evident (Jones & Linderman, 2014; Kirchmer, 2011; Tang, Pee, & Iijima, 2013; vom Brocke & Schmiedel, 2015). Both Kirchmer (2011) and vom Brocke and Schmiedel (2015) have asserted that BPM acts as a source of innovation for organisations whereby new business processes are designed or where new technologies are incorporated into business activities for organisations to remain innovative and competitive. An innovation process that includes integration with external research institutions or universities is another key source of ideas for the organisation solving the challenges it faces or delivering value to meet clients' needs. In essence, BPM focuses on improving two aspects of a business, firstly by continuously improving workflow and maintaining operational excellence and secondly by disrupting the business by looking at radical ways of using technology to introduce new products and services (vom Brocke & Schmiedel, 2015).

Business process management adds value across the lifecycle of innovation with its specific focus on efficiency by converting ideas to marketable products or adopted processes faster and that efficiency and innovation is not a trade-off (Kirchmer, 2011). BPM can be leveraged to better harness creative ideas within an organisation where processes are designed, implemented, IT enabled to collect ideas within and outside the organisation as well as monitor the implementation (vom Brocke & Schmiedel, 2015). Quality output is another key result of BPM where governance, policies and guidelines are included to monitor and check that the implementation of ideas meets what is expected (Kirchmer, 2011). Collaboration across functions is also fostered through BPM where silo operations are removed, and customers are integrated in the process delivery thereby creating products and services that meet the needs of the customers (Tang, Pee, & Iijima, 2013).

Despite the apparent benefits of the interactions and intersections of these two disciplines, the two fields of studies have however remained largely mutually exclusive of one another. BPM has evolved in the realms of information systems and technology and IM on the other hand under science and technology and business management. This separate evolution phenomenon poses a lost opportunity for the organisation to reap its potential value from improved innovation performance by leveraging the strengths from both disciplines to address the challenges faced in achieving its goals.

2.5 Underpinning Theoretical Model – Total Innovation Management (“TIM”)

Yang et al. (2003) established a new pentagon paradigm “Total Innovation Management” for innovation management that breaks through the traditional innovation management frameworks that are either R&D focused or only consider a portfolio of innovation efforts. Three distinct layers are considered in the TIM model, the model highlights the ***first layer of involvement of innovation in all functional areas*** as innovative elements in an organisation. The functional areas are split as strategic, organisational, cultural, management, market, institution and technology innovation. *Strategic innovation* – due to the fast-changing environment, the organisation should keep its strategy stable but flexible to adapt to the dynamic internal and external changes. *Management innovation* refers to the management thoughts, paradigms, mechanisms and tools that forms the operational base of an organisation. *Organisation innovation* highlights the importance of organisational structure to support innovation demand in an efficient and timely manner. Innovation in thoughts is a pre-condition to encourage innovation and tolerate failures which is fostered by strong *culture innovation*.

The organisation’s rules and routine of evaluating, promoting, training, rewarding and punishing staff is *institution innovation* that needs to be kept up with the times to meet the needs of total innovation management. *Market innovation* means the innovation of marketing channels, operational ways by which to create new marketing channels and new ways. Technology is a key source for organisation’s

core competence thus management needs to consider technology as key and foundational – *technology innovation*. The ***second layer of TIM points to the space-time*** where everybody in all departments can drive innovation continuously at any time. ***The last layer of TIM is the innovation synergy or integration*** between all the innovation elements and actors as opposed to particular focus such as R&D or the elements being isolated.

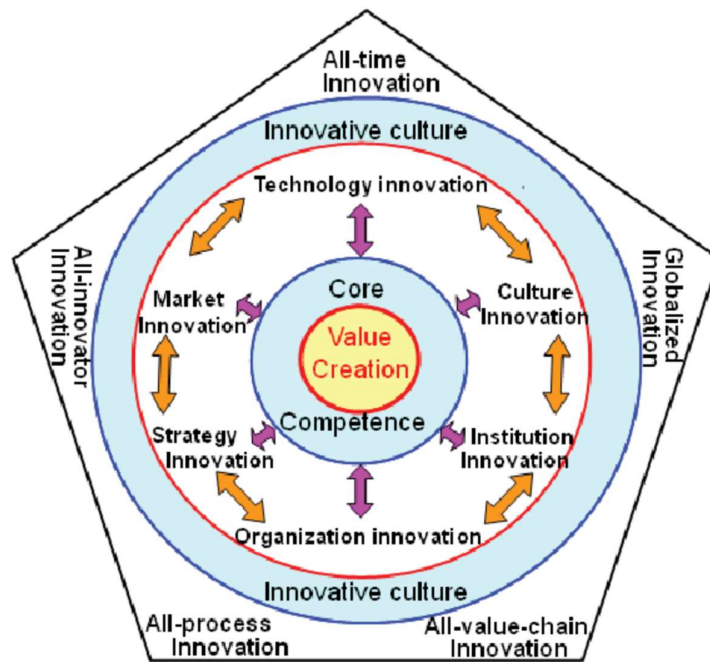
The main benefits of applying TIM allow the organisation to achieve value adds to its customers through sustainable advantages and the focus on accumulating and improving its core technological or non-technological competencies . The innovation management paradigm application is key in the attempt of finding an alternative solution to the challenges faced by financial services organisations (Sandberg & Aarikka-Stenroos, 2014; Das, Verburg, Verbraeck, & Bonebakker, 2018). Furthermore, the consideration of innovation in an ecosystem thinking allows an organisation to respond to the ever increasing needs of the customer and fierce competition (Shapiro, 2002).

With the development of the innovation models from technology focused to open innovation model asserts that innovation should take place at every level and every aspect of the organisation. This evolution of innovation models further supports the study to select the TIM as its underpinning model as it is important to consider innovation at a higher level where studies are conducted based on ecosystem theory.

Moreover, this study will use the TIM framework as a lens at which to investigate how best innovation management process can be enhanced in the context of financial services industry, while taking into account the application of BPM principles as the key enablers for the management of innovation activities and performances. This approach is considered given the apparent benefits of the interactions and intersections of these two disciplines; the two fields of studies have however remained largely mutually exclusive of one another. BPM has evolved in the realms of information systems and technology and IM on the other hand under science and technology and business management. This separate evolution phenomenon poses a lost opportunity for the organisation to reap its potential value from improved innovation performance by leveraging the

strengths from both disciplines to address the challenges faced in achieving its goals.

Figure 1: Retrieved from Yang et al. (2003)



2.6 Summary

The chapter aimed to provide a view of how IM and BPM have evolved and developed largely independently of each other throughout the decades. The literature review also focused into the challenges and barriers that are typically faced by financial services industry when driving innovation for which is the same industry that this study finds itself. The literature review further explored the nature of the relationship between IM and BPM and the benefits that the intersection can achieve. Lastly, total innovation management framework was introduced which underpins this study.

CHAPTER 3. RESEARCH METHODOLOGY

This chapter outlines the detailed research plan and processes that have been selected by the researcher for the study in answering the research questions and meeting the research objectives as described earlier in Chapter 1. The chapter is structured based on the following key research methodology components:

- Research approach and design
- Data collection method and procedure
- Data analysis
- Limitations of the study
- Ethical considerations
- Summary

3.1 Research approach

Two main research approaches, namely quantitative and qualitative methods, have been identified by scholars (Creswell, 2014; Silverman, 2010). The positivist view of the world is normally associated with quantitative research whereby statistical data is collected and analysed. It seeks to determine the causes for outcomes or effects (Creswell, 2014; Silverman, 2010). This study is interested with the constructivist view as it sought to gain understanding of phenomenon in its natural setting (Yin, 2018) and hence a qualitative research method is preferred (Creswell, 2014). Under the natural setting, numerous realities and experiences exist through the lens of human beings and allowed the researcher to look for in depth views rather than superficial categories (Mason, 2017). The qualitative research approach was particularly suitable for this study as both business process management and innovation management are multidimensional and complex phenomena with multiple realities experienced by different individuals involved in the process. The following section gives a detailed explanation in understanding the use of the qualitative research method for this study.

3.2 Research design

The qualitative research design leverages off interviews, transcripts, notes review and recordings as sources of data (Creswell, 2014). The qualitative research method has been selected for this study as the design provides in-depth knowledge of participants' involvement, understanding, viewpoints and histories with regards to their current environment (Spencer et al., 2004). The qualitative research method is also considered a method that explores the phenomenon in detail in comparison to the quantitative research method (Moriarty, 2011). The selected research design allows the researcher to describe and provide key themes through analysis in the form of interviews and at the same time allow the participants an opportunity to openly provide their views about the study. The research design selected was deemed appropriate for this study given that limited knowledge exist on the application of business management principles as an enabler of innovation management in South African banks. The qualitative approach has provided an in-depth understanding and application of the two disciplines and how they integrate within the chosen sector in this research.

The subjective nature of qualitative research poses inherent limitations (Creswell, 2014) and Ponelis (2015) further highlights that there are two types of biases associated with qualitative studies being participant bias and research bias. Participant bias also known as biased communication occurs when participants respond with what they consider is the correct and socially acceptable answer instead of how they truly feel about the research topic (Ponelis, 2015). To counter the bias, open ended questions have been leveraged by the researcher to probe and ensure the truthfulness and honesty from the participants. Research bias also known as confirmation bias takes place when the researcher unintentionally interprets or includes only the relevant data that affirms the hypothesis (Ponelis, 2015). Leading questions and wording bias is another form of research bias where questions and wordings are used by the research to lead participants to a particular direction of outcome and consequently biased answers (Yin, 1994). The researcher has mitigated this bias by continually re-evaluating the responses and data collected to keep pre-existing assumptions in check. Furthermore, the interview questions have been kept simple and open ended to avoid participants

from being directed or led in a particular direction that favours an assumption (Yin, 1994).

Closely related to the chosen qualitative approach, an interpretative research paradigm has been applied based on the study's goal to investigate the application of business process management principles as enablers to the implementation of innovation management (Saunders et al., 2019). The complexities of how BPM can best enable IM are mostly experienced by respective parties involved in the day-to-day implementation of the two disciplines. The researcher sought to understand such complexities and the relationship between the two concepts from a subjective point of view of participants. Semi-structured interviews have been used as a data collection method to achieve this outcome.

The distinctive advantage of case study approach is providing a full picture of a phenomenon and explaining the interconnectedness between components that forms part of a whole (Idowu, 2016). This research approach also allowed the researcher to obtain in-depth insights into the research topic with the participants (Merriam & Tisdell, 2015) and build rapport (Auriacombe & Mouton, 2007). With the above advantages the case study research was thus deemed as appropriate for the study. The researcher has selected a bank for this research that is part of the big four banks within South Africa which suggests that the organisation has the appropriate skills and experience. The chosen bank has also won several global and African innovation awards thereby showcasing its focus on innovation management capabilities.

The case study research approach is however not without shortcomings (Idowu, 2016; Creswell, 2014). The dependence on a single case is the key source of criticism for the case study research approach which suggests that it lacks scientific rigour and therefore limits the generalisability of its findings (Idowu, 2016). Issue of generalisation has been mitigated in the study through a method of analytical generalisation of the findings based on the theoretical framework (Ishak et al., 2014; Yin, 1994), in this instance, total innovation management paradigm as discussed in the literature review section.

Key steps taken to address the research problem should be properly documented (Leedy & Ormrod, 2005) with sufficient detail so that another knowledgeable researcher is able to obtain similar findings by repeating the study in a different environment (Lindsay, 1995). It is with these recommendations that the ensuing subheadings provide the detailed considerations and steps for the selection of participants, data collection method, analysis process, research quality mitigation actions and limitations and ethical considerations for the study.

3.3 Data collection method & instrument

For the purpose of this study, semi-structured interviews have been utilised. The benefit of this data collection approach has allowed the participant to divulge more information pertaining to the social and personal perspective (DiCicco-Bloom & Crabtree, 2006). The semi-structured interviews enabled the participants to voice their opinions and views as well as experience of business process management principles and innovation management, as well as address research questions and objectives as outlined in Chapter 1.

The research used primary data through eliciting 10 (ten) semi-structured on-line interviews due to the impact of Covid-19 pandemic that required social distancing. The sample size of 10 has been established after having considered the suggestion by Yin (1994) who stated that the researcher's primary focus should be on obtaining the correct information for the study instead of being concerned on the sample size itself. Creswell (2014) similarly notes that it is key to get different perspectives on the phenomenon being studied. This method involved the process of obtaining information through a verbal discussion with the participants. Data saturation was another key determinant for the sample size as no further new information or themes will be observed in the data by having additional participants to ten.

The semi-structured interviews have been based on a pre-defined interview guide, which served as a guide for questions to be asked while the participants were afforded the opportunity to provide addition information that they deem

important (Longhurst, 2003). This was a beneficial data collection method as the participants were able to discuss and provided more historical and contextual information pertaining to the study (Creswell, 2014). Furthermore, this method allowed the researcher to probe into questions that needed more clarity. In ensuring dependability of the interviews, the researcher audio recorded the interviews (Liamputtong & Essy, 2005). Furthermore, confirmability has been ensured through taking notes while the participants gave the answers to the interview questions (Liamputtong & Essy, 2005). The researcher then transcribed the interview recordings for ease of analysis.

3.4 Selection of participants

Two sampling methods are normally considered for research being probability or non-probability sampling. Probability sampling involves the random selection of samples allowing the researcher to make statistical inferences over the population whereas non-probability sampling involves non-random selection of samples based on convenience or other criteria (Creswell, 2014). The purposive or judgemental sampling technique which is a non-probability sampling method was utilised to select participants for the study. With this selection method, the researcher outlined the selection criteria of potential participants at the start of the study by having considered the knowledge that was needed and the participants that can and are willing to provide the information through their experience and expertise (Cooper et al., 2006; Silverman, 2010). This selection method was deemed suitable for data collection having considered the nature of the study and the time available for completion.

The criteria for selecting particular units of study must be justified (Leedy & Ormrod, 2005) along with the consideration of selecting the most suitable participants that can provide credible information for the study (Creswell, 2014). With these factors in mind, a total of 10 senior employees, ranging from executives, senior and middle management in the innovation and business process functions in the bank have been interviewed. These participants were chosen because of the following reasons:

- Experience, involvement and knowledge in innovation management for the bank
- Experience, involvement and knowledge in business process management for the bank

3.5 Procedure for data collection

In preparing for the interviews, a consent form for permission to conduct the study with staff of the department was sent to the heads of the departments two weeks in advance. Once consent was received from the heads of the departments, e-mail invitations outlining the objective of the study were sent to the selected participants who confirmed their consent through email. When permission was received, interviews were scheduled to take place online over the digital application Microsoft Teams during working hours, lasting approximately 30 to 60 minutes.

The interview process followed the guidelines as recommended by Turner III (2010). The interview guide was pilot tested on one of the participants, to address any gaps and ensured the effectiveness of the protocols (Turner III, 2010). The key interview process followed by the researcher: (1) Provided the broad basic context and objective of the study so that interviewees have a common understanding to initiate the discussion and (2) the research explained to the participants how the findings would be used and assuring participants that any comments or specific references made during the interview will be kept anonymous and stay confidential. (3) The participants were also made aware that the interviews will be recorded and that interview notes will be made. The interviewer concluded by thanking the participants.

3.6 Data analysis and interpretation

The study employed qualitative data analysis where themes were established out of the contextual information gathered from the semi-structured interviews (Tashakkori et al., 1998). A systematic six-step data analysis and interpretation process were followed as follows:

- Step 1: Familiarisation

Data from interviews were transcribed, read and re-read through an immersive process. Data reduction from the recorded interviews were done in order to identify and capture key initial codes from the transcribed data. The notes that were captured during the series of interviews were stored in a Microsoft Word document and reviewed as well.

- Step 2: Coding

A descriptive coding process was applied to the study. Descriptive coding as discussed by Saldaña (2021) refers to extracting objective content and summarise passages. An iterative process was applied where the earlier step reviewed as new themes or categories materialised (Punch, 2013).

- Step 3: Generating Themes

The codes were collated into potential themes and all the data relevant to the themes were assigned. This method of content analysis using coding, themes or categories enabled the researcher to understand the phenomenon in a specific way (Zhang & Wildemuth, 2009).

- Step 4: Reviewing Themes

The potential themes were further reviewed against the coded transcript and the holistic dataset to refine the thematic mapping.

- Step 5: Defining and Naming Themes

On-going analysis was performed on the dataset to continuously refine the names and specific for the themes.

- Step 6: Writing Up

Lastly, the analysis of the findings has been discussed and related back to the research literature and questions.

3.7 Limitations of the study

This qualitative research methodology used has the following limitations:

- The number of interviews is limited due to the time constraint afforded for course of the study.
- Participants providing information as guided and required by the interviewer as is known as the participants bias or Hawthorne effect (Creswell, 2014).
- Face to face interviews were not recommended due to the Covid-19 pandemic.
- All of the interviews were conducted over on-line communication platforms such as Microsoft Teams, and this might impact the rapport between the interviewer and interviewees.
- The level of maturity or appreciation of the two management disciplines within the bank is not at the same or consistent.
- Subjectivity is applied in purposive selection and researcher bias could lead to misleading findings (Creswell, 2014).
- The findings are not generalisable except for the theory (Yin, 2018).

3.8 Research quality

This qualitative study aims to achieve key research quality that is credible, transferable, dependable and confirmable (Creswell, 2014; Silverman, 2010). The table below explains how the research qualities for the study have been achieved:

Table 3 – Qualitative research criteria

Criteria	Actions Taken
Credibility	Well established research design was followed for the study and the participants were selected through the purposive sampling method. Recordings and notes were taken during the semi-structured interviews. Data collected from the semi-structure interviews has been transcribed using the services

	of a professional transcriber. The data obtained was analysed through the use of a thematic log. The transcripts have been audited against the recordings. Audit trail has been provided as data will be stored both on the local drive and on the OneDrive cloud server.
Transferability	The findings were not generalisable as the case study is limited to one bank however theoretical considerations can still be generalised. To achieve this objective, recordings and notes were taken during the semi-structured interviews to provide extensive descriptions of the contexts obtained.
Dependability	The purposive sampling method was used where 10 participants were chosen to provide their respective views. The interview questions were dummy tested and refined. The data obtained were analysed through the use of a thematic log and the transcripts audited against the recordings. Audit trail has been provided as data will be stored both on the local drive and on the OneDrive cloud server.
Conformability	Recordings and notes were taken during the semi-structured interviews. A systematic process was followed for collecting, analysing and interpreting data. Audit trail has been provided as data will be stored both on the local drive and on the OneDrive cloud server.

3.9 Ethical considerations

Two key ethical considerations as outlined by Guillemin and Gillam (2004) were considered by the researcher for this study: procedural and in practice. Moreover, the researcher has complied with Wits University's policy on research ethics. After ethical clearance has been granted from Wits University's ethical clearance committee, the researcher sent the letter of consent (see Appendix B) to departmental heads requesting permission to interview their team members as participants for this study. Subsequent to having received the permission in the

form of signed consent letters from departmental heads, the researcher sent emails to the potential participants to provide them with key information such as background and objective of the study. The email also contained a request for their consent in the participation in the semi-structured interview. The email stated that the interviews were optional, the interviews were recorded subject to approval and the information obtained was kept confidential. The researcher further guaranteed that the collection will not harm others. The name of the organisation under study and that the participants remained confidential in order to maintain anonymity. Interview recordings will be securely saved on a local laptop drive and backed up on the OneDrive cloud server. The outcomes of the research will not be modified or changed as this is an unethical behaviour. The final outcomes and findings of the study will be discussed with the researcher's academic supervisor and shared with the participants and the organisation under study.

The ethical risk of this research is thus classified as low, as the researcher does not foresee any discomfort or distress that might result from the interviews.

3.10 Summary

This chapter focused on providing the details of the research methodology followed in the qualitative exploratory study of ten participants were carried out to explore innovation management and business process management in a bank in South Africa. The research methodology is considered to be effective and sufficient to explore the main research issue and the research findings will be able to provide useful information and add to the understanding of innovation management and business process management in a South African bank.

CHAPTER 4. PRESENTATION OF FINDINGS

4.1 Introduction

The purpose of the chapter is to present the findings and discussions for the study with the objective of answering the following research questions:

- i. How best to integrate innovation management framework in overcoming the barriers of innovation management activities in a South African banking context?
- ii. Which of the business process management principles are the most relevant in overcoming the barriers of innovation activities in a South African banking context?
- iii. What is the nature and application of business process management in enhancing the implementation innovation management activities in a South African banking context?

The findings presented in this chapter were gathered through the qualitative research methodology using semi-structured interviews. The duration of the interviews lasted approximately thirty minutes to an hour. The interview transcripts were transcribed using Microsoft Teams where interview notes were taken during the interviews. Thematic analysis process was then followed where the contextual information was coded to identify key words that then was categorised into themes.

The chapter will start off by describing the profiles of the participants that were purposefully selected for the study. No names of the participants were used to assure confidentiality and anonymity of the participants as outlined in chapter 3. After the profiles of the participants, the chapter goes into presenting the findings and discussions in response to the research questions.

4.2 Profile of study participants

The first section of the interview protocol was on obtaining the work experience of the interviewees. Below is a table giving a summary view of all the participants that took part of the semi-structured interview as designed by the study. As seen from the table, the participants have on average 11 years of work experience in the key fields for the study, which subsequently means that they are in senior management positions and well vest with the phenomenon of business process and innovation management.

Table 4 – Summary of bibliography of participants

Participants	Position	Years of experience
Participant 1	Head of Process Excellence	9 years
Participant 2	Head of Process Modelling/ Process Engineer	11 years
Participant 3	Lead Process Engineer	14 years
Participant 4	Process Engineer Manager	20 years
Participant 5	Digital Transformation Specialist	9 years
Participant 6	Head of Innovation	11 years
Participant 7	Innovation & Creative Design Specialist	5 years
Participant 8	Robotic Process Automation Manager	13 years
Participant 9	Robotic Process Automation Manager	11 years
Participant 10	Business Analyst	12 years

4.3 Findings pertaining to research question 1

Research Question 1: *How best to apply the innovation management framework with business process management in overcoming the barriers of innovation management activities in a South African banking context?*

In line with the research objective, interview information was gathered in section B of the interview schedule to establish how best to integrate innovation management with business process management principles to overcome barriers within the South African banking industry. Two key themes being innovation culture enablement and effective business process performance were identified from the interview information which have been included in the ensuing sections in the chapter. The below table further illustrates how the themes, sub-categories and codes were derived from the thematic analysis process for this research question:

Table 5 – Summary of themes, sub-categories and codes

Themes	Sub-Categories	Codes
4.3.1 Innovation Culture Enablement	a) Understanding of Innovation	Ideation
		New product
		New service
		New technology
		Value offerings
		Proof of Concept
		Minimum viable product
		New ways
		Faster and cheaper
	b) Innovation Management in Practice	Communication
		Leadership
		Consistent sponsor
		Strategy
		Empowerment
		Ethos
		Free thinking
		Discretionary energy
		Bottom-up approach
	c) Organisational Structure	Framework and tools
		Methodology
		Guiding principles

4.3.2 Effective Business Process Performance		Effective teams
		Effective prioritisation
		Minimum viable governance
		Measurement
	a) Understanding of Business Process Management	Method
		Tools
		Thinking
		Enabler
		Processes
		Analyse
		Measure and evaluation
		Performance
		Control
		Monitor
		Improve
		Design
		Optimisation
	b) Business Process Management Tools	Enterprise architecture
		Trained teams
		Lean practitioners
		Yellow/Green belt
		Lean six sigma
		Connect sessions
		Lean engagements
		Coaching
		Process mining
		Process owners
	c) Business Process Management in Practice	Key performance indicators
		Return on investment
		Leadership sponsorship
		Employee empowerment
		Process architect
		Methodologies
		Standardised

4.3.1 Innovation Culture Enablement

From the thematic analysis, the composition of the innovation culture enablement consists of three sub-categories being (a) understanding of innovation (b) innovation management and (c) organisation structure, which will be further presented below. This finding correlates to the TIM

a. *Understanding of Innovation*

Innovation as a concept was broadly understood by many of the participants (nine out of ten) as new ideas, ways, products, services, or technology that is introduced in the bank. The level of novelty for efforts to be considered as innovation was however different across the participants whereas some emphasised the need for new or novel innovations whereas one participant spoke to incremental innovation which is tweaking an existing process or product. It was also evident that the understanding of innovation as a concept varied widely across the participants. All the participants asserted that it is important that innovation offers value and brings about faster and cheaper ways of doing things in the workplace. Innovation that is stuck in the ideation stage or poorly implemented will not fully deliver its full envisioned value. The process of innovation was described by participants that should include defining the proof of concepts and the minimum viable product. By the inclusion of these two key steps, it allows for quick prototyping of ideas and getting feedback to refine and make the final product more robust. Participants with experience in business process management had a stronger view on innovation including business process whereas other participants were more focused on products. Across all the participants (ten out of ten), it was unanimously highlighted that innovation is important to take the bank forward and allow the organisation to be competitive. Find below the verbatim comments from the participants in support of the findings above:

Participant 2: *“Uhm, OK, so my understanding of innovation is coming up with like new ideas etc. or bringing something new to the bank so it could be something like a new product or new service. Maybe introducing some technology or changing methods, etc. But overall, whatever it is, it has some positive impact to the bank, so that innovation has a positive impact on the bank. It will either increase revenue or set us apart from competitors.”*

Participant 5: *“So I think understanding of innovation is finding new ways to do things faster and cheaper in your day-to-day activities.”*

Participant 7: *"It's a game of inches. It is a smart way of doing things. It's modernizing old things into the new way of doing things, so it's not always an invention. For me, innovation is looking at the best way to do things, interrogating processes, interrogating what is existing and constantly trying to improve upon those."*

Participant 10: *"Innovation is anything new, even if you just tweaking an existing process or even an existing product."*

b. *Innovation Management in Practice*

All participants attested to the existence of innovation management within the bank with varied degree of what is in place to drive and manage innovation. Despite the difference in understanding, the majority of the participants (eight out of ten) asserted that innovation management requires decisive and vested leadership in the form of strategy, consistent sponsorship and communication to empower free thinking amongst employees in the organisation. Participants further clarified that the commitment and visibility from the senior executives empowers the employees to contribute and take appropriate risks in coming up with innovative ideas and implementation for the bank. A few participants (six out of ten) however pointed out that when misalignments between the executive and middle management levels or inconsistent sponsorship takes place, these issues can render innovation management ineffective. Typical issues that arise from such misalignment include ideas are not prioritised or funded to successfully bring the ideas to full completion. The participants (four out of ten) also cited that a bottom-up approach to innovation management is also important so that employees at all levels are partaking in the innovation activities and contributing to the strategy of the bank. Participants further explained that there are often aspects or areas that they have view of that can be better improved or considered that should be included as part of the strategy or priority for the bank to improve the day-to-day operations or significantly change how work is managed. The above-mentioned points are further supported by the participants' word for word responses below:

Participant 7: *"It's a game of inches. It is a smart way of doing things. It's modernizing old things into the new way of doing things, so it's not always an invention. For me, innovation is looking at the best way to do things, interrogating processes, interrogating what is existing and constantly trying to improve upon those."*

Participant 5: *"We went through three years of sort of changing that recipe when mid management, now very strongly involved, but now they sort of a disconnect on EXCO level, because our EXCO changed quite a lot in the last two years."*

Participant 5: *"We encourage innovation from a bottom-up approach. It's not a manager that says go and innovate, but we try and aspire."*

c. Organisational Structure

Organisational structure is another element that was found under the theme of innovation culture enablement where strategic framework, tools, guiding principles were highlighted by many of the participants (seven out of ten) as key in driving innovation outcomes and not being stuck at ideation. Participants believed that having the right organisational structure enables the development of effective teams to deliver on innovation. It was further clarified that organisation structure embodies elements such as having clear roles and responsibilities, focused capacity, the right capabilities, mandate, and influence to get innovation ideas implemented. Half of the participants (five out of ten) highlighted that the bank in the past has created a separate structure/unit to allow for specific focus on innovation, however the result by this unit is mixed and the unit no longer exists. Participants (five out of ten) questioned whether the bank has truly learnt from this experience where this separate innovation unit delivered mixed results. Participants emphasised that the learning is important as it would feed into the next experiment the bank may undertake. The bank should not stop innovating simply from one failure but rather take the lessons learnt and make the next initiative more successful was another key pointed added by the participants. Majority of the participants (eight out of ten) discussed that prioritisation approval and governance processes that supports the innovation organisation structure needs to be effective and efficient in resource allocation and carefully balanced

to achieve minimum viable governance to avoid overloading the innovation process with governance. Lack of measurement framework for the roles within the innovation organisation structure can discourage employees from being actively innovating.

Participant 1: *“Innovation management then also includes. You know how you structure that organisation to ensure that the innovation is successful, and you don't end up with this kind of pot of ideas.”*

Participants 3: *“with the Bank's strategy of kind of consolidating into a single kind of more coordinated group here, wait, where's previously we were more Federated, and each business gets quite a big degree of control over what they did.”*

Participant 7: *“We have things like unlocking your creativity, so it's those tools that we use and that we availed two staff members in terms of how they can ideate in a focused way because random ideations, it can be great, and lot of great ideas can come from there. To Ideate, according to the strategy, so that is a key point that I would say is part of the framework.”*

Participant 2: *“Uhm, I think. Also, if it's not linked to performance, people are like, so why must I do this? Why must I get involved? What's in it for me?”*

4.3.2 Effective Business Process Performance

From the thematic analysis, the composition of effective business process performance is made up of three sub-categories being (a) understanding of business process management (b) business process management tools and (c) business process management in practice as outlined below.

a. Understanding of Business Process Management

Participants (nine out of ten) indicated that in order to integrate the BPM principles with innovation management process, having a solid base understanding of BPM is important. Participants clarified that BPM as a capability and practice within the bank includes methodologies and tools to analyse and design business

processes so that the business processes can be improved or re-engineered. To deliver value to the organisation. Controls is a key component of business process management highlighted by participants as controls mitigate the different types of risks that the bank is exposed to. The point is particular valid as banks are highly regulated and should be managing risks to the appropriate level through the use of controls embedded in its various business processes. Participants emphasised the importance of having newly designed or improved business processes evaluated, measured and continuously monitored for its intended objective so that if there are gaps, the processes can be further optimised. The evaluation of business processes is also key to recognise and reward employees for the implementation. Few of the participants (two out of ten) that had predominantly experience in innovation management did however point out their limited understanding of business process management as a discipline.

Participant 1: *“Business process management is its methods, its tools, it's thinking that's a enable us to identify what your processes are to analyse and measure them.”*

Participant 2: *“We also have sort of defined methodologies and standards. We have a central depository for all the business processes, which makes it easy for us to identify and sort of improve them.”*

b. *Business Process Management Methodologies*

Leading from the above section, the participants (seven out of ten) went on to further clarify that the methodologies that are commonly used within the bank was the “Lean Six Sigma” method. Participants highlighted that specific teams within the bank were offered the training and accreditation for this BPM methodology. Employees were also graded to indicate the different levels of expertise that was either “green belt”- junior or “yellow belt”- intermediate or “blackbelt” - advanced. Once the specific employees are accredited, a coaching approach is then further developed as a knowledge sharing mechanism to upskill other employees in the bank to drive business process changes.

Process mining and process ownership identification are two key aspects mentioned by the participants that are included when the BPM methodologies are

being executed. Another critical component of BPM methodology is that the bank has a full view of its enterprise business process architecture where all the key business processes are clearly mapped out. The enterprise business process allows for easy and clear identification of which key business processes are being changed or affected and what the change impacts may be.

Participant 2: *"We also have sort of defined methodologies and standards. We have a central depository for all the business processes, which makes it easy for us to identify and sort of improve them."*

Participant 10: *"so I do believe it should be. If you want to have a proper business process owner or prices owner doesn't have to be business process. It needs to be someone who that is their dedicated role. You can't be managing day-to-day OPS and trying to improve process."*

c. *Business Process Management in Practice*

Participants asserted that line managers and team leads are put onto Lean Six Sigma training so that they can drive its usage and adoption with their respective teams. Participants expressed that the Lean Six Sigma methodology is standardised and easily repeatable to solve many of the business problems. When the method is used, employees are encouraged to get direct feedback from the people and systems that engages closely with the new business process to avoid any blind spots or gaps in the business process design. The participants again reiterated the effectiveness of having an enterprise business process architecture that is used as important guide to navigate with when embarking on BPM.

Participant 1: *"Uh, we also started lean for managers some time ago. We retrained team leaders line managers in Lean itself, so that's process improvement methodology, but not kind of at a practitioner level."*

Participant 3: *"So having a defined business process architecture and using it as part of our design and approval methodology, I think it's a big component of making us effective."*

Participants 3: *“Ensures that we don’t work in a bubble here because Lean is all about being on the line and getting direct feedback from the systems and people that are actually working on the processes so that is a critical component of it as well is the sort of lean based approach.”*

Participants 4: *“I think it's a very standardized, so it's a well-known this stablished framework. and it's a very how could I say a standardized, repeatable method to apply to any business problem.”*

4.4 Findings pertaining to research question 2

Research question 2: *Which of the business process management principles are the most relevant in overcoming the barriers of innovation activities in a South African banking context?*

Similar to the first research question, interview information was gathered in section B of interview schedule to establish which of the business process management principles are the most relevant in overcoming barriers of innovation activities within the South African banking industry. One key theme being innovation management process emerged from the interview information which is further described below.

From the thematic analysis, the composition of the innovation management processed is grouped into three sub-categories being: (a) structured innovation process (b) enabling factors for innovation and (c) disabling factors for innovation. The table below further illustrates how the themes, sub-categories and codes were derived from the thematic analysis process for this research question:

Table 6 - Summary of themes, sub-categories and codes

Themes	Sub-Categories	Codes
4.4. 1 Innovation Management Process	a) Structured Innovation Management Process	Federated business model

		Decentralisation
		Owner management
		Innovation champions
		Process champions
		Culture reinforcement
		Priotisation forum
		Innovation training
	b) Enabling Factors for Innovation	Leadership sponsorship
		Flexibility
		Serial innovators
		Self-starter's employees
		Fail fast
		Employee involvement
		Innovation culture
		Rapid deployment

		Performance management
		Focused approach
		Explicit innovation
	c) Disabling Factors for Innovation	IT security
		Red tape
		Approval processes
		Innovation speed
		Cost factor
		Top-down approach
		Silos
		Skill sets
		Rewards and recognition
		Inadequate capabilities

4.4.1 Innovation Management Process

a. *Structured Innovation Process*

As per the participants (nine out of ten), a well-structured innovation process exists for the banks employees to participate in. The well-structured innovation process consists of distinct phases or pillars which are named as *inspire*, *ideate*, *implement* and *celebrate*. The participants (ten out of ten) however highlighted that the well-structured innovation process varies depending on which segment of the bank the employees are working in the bank. The well-structured innovation process was pointed out by the participants to cater more for the Retail & Commercial segment of the bank. As for the Corporate & Investment segment of the bank, participants asserted that the innovation process seems to have been discontinued due to the change in the overall innovation management approach. The participants highlighted that the well-structured innovation process is effective when it comes to obtaining approval for product innovation in the bank however the well-structured innovation process seems to be biased against non-product type of innovations such as process innovation. Participants further pointed out that the well-structured innovation process is not streamlined for all segments for the bank which can be challenging for employees that work across the different segments and wanting to innovate. Further verbatim support for the points above from the interview participants can be found below:

Participant 6: *“And the other thing that's quite interesting is that in the Retail and Commercial banking context, traditionally they've had innovation on their scorecard, so innovative it would be is a very scorecard driven environment, whereas in the Corporate and Investment banking is not right.”*

Participant 10: *“I would say there's a very structured way of getting products approved and their teams that are dedicated to coming up with new products.”*

b. *Enabling Factors for Innovation*

Several enabling factors for the innovation management within the bank were highlighted by the participants. Firstly, many of the participants (seven out of ten) expressed that from the culture and leadership perspective it needs to encourage

employees to think freely, differently and take risks so that the employees participate in innovation. Participants goes further to suggest that the culture and leadership of the bank needs to be one that allows employees to make mistakes which is critical in encouraging employees to innovate. The importance of bank's culture and leadership to be aligned and integrated to the overall strategy is another key aspect mentioned by the participants (eight out of ten). Participants (six out of ten) pointed out that the overall strategy for innovation needs to be sustainable and spans across a long-term period and not of an ad-hoc nature that is short-term. Participants (seven out of ten) asserted that the importance and the focus on innovation within the bank by all employees should be elevated and made more explicit which forms a critical part of the culture and leadership aspect of bank. Through the explicit focus, more employees should be mobilised and encouraged to explore innovation opportunities outside their normal scope of work and look for example new potential technologies that can be brought into use within the bank to improve efficiencies or offer more products. The disconnect between the sponsor and the funder of innovation is a concern raised by few of the participants (six out of ten) as well as the animosity that can be created amongst team members is another negative cultural aspect that have risen as a result of innovation activities within the bank.

Many of the participants (seven out of ten) highlighted the importance of allowing for some level of flexibility when it comes to the systems architectural governance within the bank to encourage innovation through the consideration of different technology platforms and stack. Participants however do understand that the bank operates in a highly regulated industry and the introduction or exploration of different technology platforms needs to be carefully assessed within a framework.

Participants mentioned that from a human resource management perspective, for the overall innovation management process to be highly effective, it is key for the organisation to hire employees that have a self-starter mentality which has been the common practice for the Corporate & Investment bank segment of the bank. Participants explained further on human resource management that the identification and retention of employees that are continuously innovating – “serial

innovators” should be another area of focus as these serial innovators will often overcome any obstacles to achieve the desired innovation outcome which critical to the bank.

Training on innovation management process, tools, innovation strategy is another element that is essential highlighted by the participants in order to empower employees with the know-how and tools of how to participate in the innovation processes. Participants further clarified that the training could clarify many areas of lack of understanding by employees to make their involvements in the innovation process a lot easier and quicker. The training can also to allay fears such as possible job losses when manual processes that are part of employees’ jobs are made more automated or more efficient which often in common practice the employees’ freed up capacities are redeployed onto another area of work.

Lastly, participants emphasised that having the appropriate framework and transparent performance evaluation of the innovation outcomes is key in allowing employees to experience the process as fair and equitable. Participants further highlighted those rewards and recognition such as sizeable prize winning and awards event for the innovation efforts by employees is another key aspect that would drive participation in innovating within the bank from a performance evaluation perspective.

Participant 6: *“The culture and then the leadership. Actually, those are the two biggest things. So, you want to make sure that you're creating a culture that is open to possibility. You wanted culture that is open to taking risks, calculated ones. But if you cannot take a risk, you cannot be innovative. So, you have to have a space where making mistakes is OK, you have to have leadership that are They encourage people to think differently about what they do every single day.”*

Participant 3: *“So to be less dogmatic about that whole thing, especially on the on the architecture side of things.”*

Participant 6: *“the other thing for me that really stood out was the serial innovators. I never want to lose those guys. They are the best people. They've got a sense of perseverance and tenacity that is second to none. They've got a*

sense of creativity. They are, they are not inhibited by the obstacles that they will encounter.”

Participant 1: *“The bank has always been in favour of recruiting people that are more self-starters.”*

Participant 2: *“Uhm, I think innovation should be sort of part of our culture, right? So, it's something aligned to our vision and strategy, etc. and it's something that we should entrench and sustain so it's not a start-stop thing.”*

Participant 9: *“So, whenever we do innovation or efficiency is the first thing which comes to anyone's mind is will, I or will I lose my job? So that will be the first question anyone will think of. So, educating people is very important. Innovation normally adds jobs also in the organisation.”*

Participant 2: *“Uhm, I think it's important to link it to performance.”*

Participant 7: *“It puts a lot of staff morale to say that I'm getting recognized through the innovation where it might be seen like, oh, it's my job, but they will put in that extra effort because they know at the end of the day there could be a carrot for them. There's that recognition, they see their names on the stage.”*

Participant 2: *“And also, you know, maybe sending me to some training, empower me to know how to identify who come up with ideas to improve the business.”*

Participant 3: *“Organisation focused on it explicitly, the staff members also kind of more actively sought to innovate around the work that they did, or looking for opportunities outside the bank, bring new technologies in so, so I think there's a big impact on the culture of the organisation.”*

Participant 6: *“So, there's a massive disconnect between the people who are paying and are sponsoring and the people who are actually coming up with a really cool solutions and really want to participate and really want to be a part of it.”*

Participant 10: *There I think what didn't work was it. I think it created a lot of UM, competition between people and animosity within teams. And it became a little bit too competitive. And then there were debates around is an innovation or is it just you are doing your job beta which you should be doing regardless?*

c. *Disabling Factors for Innovation*

Several disabling factors were also noted from the participants. Bureaucratic governance approvals or many “red tapes” was the most cited factor by the participants (nine out of ten) to stifle innovation efforts within the bank where there are too many governance forums, and the process is complex to obtain the required approvals. Part of the assessment framework includes element such as information technology security requirements which extends the approval timeline even further.

Participants asserted that hierarchy decision making as another disabling factor that holds back innovation within the bank. The time required to wait for senior management to make the decisions is wasted time that could be invested in moving the innovation quicker and forward in the process. Another aspect link to hierarchy within the organisation is that strategic understanding and direction do not necessary filter all the way through to the lowest level of the bank.

Alignment across the different business teams or functions is another area of challenge highlighted by the participants where employees within different teams tend to think or execute with only their teams or function interest in mind as opposed to the overall benefit of the bank.

Lastly, as much as innovation efforts are good for the bank, it does create animosity and unhealthy competition in some instances within the teams that defeats the purpose of collaborating to create something new or better for the bank.

Participant 2: *“Uhm, also think there's a lot of red tape. So, I come up with an idea, but it goes no way because there's many obstacles and there's no way off or forums etc. you know how do we overcome these challenges? How do we*

make sure that whatever is identified gets implemented? So those are things with some of the barriers.”

Participant 3: *“that kind of bureaucracy really stifles innovation.”*

Participant 1: *“Is because we are in banking, we have to spend a lot of time making sure that's solutions that we produce meet IT security requirements and if you know the rigor behind that kind of extends your timeline.”*

Participant 4: *“OK, so in my view I think being able to make decisions more laterally than having to wait for decisions up the value chain (hierarchy), but like expecting senior management to make decisions, firstly as something that it's a barrier. I do think that we placed too many constraints on ourselves that restricts us from moving forward faster.”*

Participant 7: *“I think as much as the strategy is translated quite well, I'd like to think from the top down doesn't always filter all the way to the bottom. So if someone at a call centre level is not always connected to the strategy and the bigger picture.”*

Participant 8: *“Everybody looked after their own business. They created duplications.”*

Participant 10: *“There I think what didn't work was it. I think it created a lot of uhm, competition between people and animosity within teams. And it became a little bit too competitive. And then there were debates around is an innovation or is it just you are doing your job better which you should be doing regardless*

4.5 Findings pertaining to research question 3

Research question 3: *What is the nature and application of business process management in enhancing the implementation innovation management activities in a South African banking context?*

Like the prior research questions, interview information was gathered in section B of interview schedule to establish the nature and application of business process management in enhancing the implementation innovation management

activities in a South African banking context. One key theme being generate innovation through business process management emerged from the interview information which is further described in the ensuing sections below.

From the thematic analysis, the composition of generation of innovation through business process management is split into one sub-category being (a) leverage business process management. The table below further illustrates how the theme, sub-category and codes were derived from the thematic analysis process for this research question:

Table 7 - Summary of themes, sub-categories and codes

Themes	Sub-Categories	Codes
4.5.1 Generate Innovation through Business Process Management	a) Leverage Business Process Management	Content centric
		Independence
		Continuous improvement
		Hand-in-hand (merge)
		Capability
		Innovation process
		Manage innovation
		Embedded innovation
		Explicit

		Deliberate management
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4.5.1 Generate Innovation through Business Process Management

a. *Leverage Business Process Management*

Many of the participants (eight out of ten) believes that innovation management and business process management go hand in hand. The outcome of innovation will more likely than not impact key business processes within the bank that would require deliberate management to get employees onto the new business processes brought about by the innovation. Another dimension to the interdependence between the two management processes, should employees want to continuously improve or fundamentally redesign a new business process, they can leverage off the innovation management process to achieve the desired outcome, this is valid when the employee is not an expert in process engineering but has a good idea of how the process may need to work. Participants further asserted the importance of the bank identifying innovation management process as a key business process should the bank want to remain competitive and innovative within its industry and relevant in the future. One participant however cited that the innovation process within its segment has been embedded into its normal operational processes and is no longer managed separately.

Participants emphasised that content or context determines the level of integration between the two management disciplines. Certain innovation activities would have a high business process focus and vice versa which would then elevate the need of integrating the two management practices and require employees to carefully consider how the two management practices need to be closely integrated. Participants pointed out that the two management processes also have different stage of maturity within the bank which impacts the perception that employees have on them, BPM is seen as formal and required whereas innovation process management is perceived as a nice to have. The different stages of maturity between the two management practices are also further

suggested by the participants to exacerbate the siloed approach in the implementation of innovation and business process management within the bank i.e., the lack of integration between the two management models.

Several of the participants (seven out of ten) carefully pointed out that whilst there are clear benefits associated with the integration of BPM principles with innovation management; there are however rigidity and formality that is often practised with BPM that needs to be delicately balanced so that innovation is not impeded. This concern particularly holds true during the ideation phase of innovation that should allow for free thinking and flexibility and not be constrained by excessive governance and structure that may be brought on by BPM principles.

Participant 2: *“So, you need to have it go hand in hand, because when you come up with an idea etc., you need to know. OK, so which processes is impacting? How do I sort of improve this etc.? So, you need to have sight of that?”*

Participant 10: *“We should, and we must always apply them. I think it's just when it's appropriate and there's definitely value.”*

Participant 3: *“Like over the past few years, that's kind of that kind of explicit innovation focused process has kind of fallen away. I think we see an innovation now more as a sort of a business-as-usual thing. there's no explicit innovation.”*

Participant 4: *“Any innovation should ultimately impact your business process.”*

Participant 7: *“I would marry the innovation and the business process management.”*

Participant 10: *“It needs to be fit for purpose, so I don't think you can apply all our practices and or principles to again every type of innovation. And I also think if you make it too formal instructed you lose innovation because it almost restricts your thinking and add restricts how you know there's too many boxes to tick or structures to follow in your not free thinking anymore and I think it just restricts.”*

Participant 8: *“I'm sort of in the middle. It's. Yeah, it's a. It's a little bit of a of a no. Yes, that I think the bank is trying to manage that tool innovation and business*

process management because somewhere I've noted is that, the process engineers are not normally your innovators and your innovators are not normally your processing genius."

Participant 10: *"It might just be the fact that innovation is more of a newer concept as opposed to process management, which is a very old concept and we've managed to make process management something quite formal and required by the bank where I think we still see innovation is something that's just a nice to have."*

4.6 Summary of findings

The chapter concludes by providing a summary of findings for each of the research questions:

Research Question 1: *How best to integrate innovation management framework with business process management principles in overcoming the barriers of innovation management activities in a South African banking context?*

Key summary of findings for research question 1:

As the major finding to the first research question of the study, it was found that the integration of innovation management framework with BPM to overcome barriers is best done through innovation culture enablement and effective BPM performance. Solid understanding of both disciplines by employees, making the available tools accessible and continuously assessing both management disciplines in practice are key components for how the integration between the two disciplines can be achieved. Lastly, organisation structure that enables effective teams and prioritisation is another focus area for the integration between the two management disciplines.

Research question 2: *Which of the business process management principles are the most relevant in overcoming the barriers of innovation activities in a South African banking context?*

Key summary of findings for research question 2:

The first key finding to this research question outlined the need for a structured innovation management process that cater for both the centralised and federated models of a large organisation. Ownership of the innovation management process through champions is critical for success. It was found that a few enabling as well as disabling factors were pointed out by participants as key elements to be put in place or eliminate for innovation activities to be successful.

The enabling factors for innovation activities included the following:

- Leadership sponsorship
- Flexibility in the innovation process implementation
- The recruitment and retention of serial innovators and self-starter employees
- The adoption of the 'fail fast' culture
- Employee involvement
- Innovation culture
- Rapid deployment
- Performance management
- Focused approach
- Explicit innovation

The disabling factors for innovation activities included the following:

- IT security and its associated red tape process
- Rigid approval processes
- Slowness in the innovation pace
- The associated cost factor for innovation
- Top-down approach
- Silo-approach
- Shortage of appropriate skill sets and capabilities
- Inadequate rewards and recognition

Research question 3: What is the nature and application of business process management in enhancing the implementation of innovation management activities in a South African banking context?

Key summary of findings for research question 3:

The major finding for the nature of application of innovation and business process management is that the two go hand in hand with a high level of interdependency. The level of integration between the two management disciplines should be context driven. The maturity of the two capabilities within the bank is suggested to be another key factor that determines the level of integration between the two practices across the different teams as well as within the bank. Innovation has still not reached its maturity stage and thus regarded as a 'nice to have', while business process management given its maturity stage within the banks has been appropriately embedded. Given the difference in the maturity level of the two disciplines, an integration of that is context driven thus becomes imperative to consider.

CHAPTER 5. DISCUSSION OF FINDINGS

5.1 Introduction

Chapter 5 provides a reconciliation of findings in chapter 4 to the literature review conducted in chapter 2.

5.2 Discussion pertaining to research question 1:

Research Question 1: *How best to apply the innovation management framework with business process management in overcoming the barriers of innovation management activities in a South African banking context?*

Scholars such as Di Stefano, Gambardella and Verona (2012) and Wallin and Hacklin (2013) have both emphasised the importance of focusing on internal organisational resources, knowledge, competence or human capital while driving innovation management or integrating knowledge of two distinct fields such as innovation management and business process management. Drew (1995) further asserted that important changes such as underlying values and beliefs are needed for organisations to become more innovative. Docherty (2006) and du Preez & Louw (2008) further stressed the importance of people as it is people that interact with the various organisational factors and collaborate in driving innovation. These views held by the scholars are consistent with the finding where innovation culture enablement which is predominantly focused on empowering the employees and having the right organisational culture in place to manage innovation was cited strongly by participants. This finding corresponds with the functional area layer of the TIM paradigm that points to culture of innovation which needs innovation to be in the thoughts of all employees, fostering a culture of tolerating failures as lessons for the next innovation initiative. Other disabling innovation cultural factors such as restrictive mindset due to strong routines and structures (Das, Verburg, Verbraeck & Bonebakker, 2018) and not sufficiently exploiting new ideas (Sandberg & Aarikka-Stenroos, 2014) were however not found in the study which could be as a function of the self-starter type of employees and a culture that is fairly encouraging of innovation

within the organisation under study. These disabling factors from the study further supports the importance of culture innovation from TIM of not having a restrictive mindset to drive innovation activities within a bank.

The layer of institution innovation from TIM points to the importance of ensuring that staff in the organisation is well-trained and understands the “rules and routine”. This layer from TIM was undoubtedly highlighted in the study that the two management disciplines may be separate but the importance of ensuring clear and robust understanding of innovation and business process management around definition, principles, methodologies, tools, controls, within the organisation is top priority in unlocking innovation.

Das, Verburg, Verbraeck and Bonebakker (2018) found that financial services organisations displayed overzealousness on risk management where too much focus is placed on risk avoidance possibly as a result of financial services organisations often being highly regulated which is in agreement with the finding of the study where too many governance forums and complicated governance processes that needed to be followed in order for ideas to be approved and implemented. This finding touches on the management innovation layer within TIM whereby the management thoughts, mechanisms and tools need to support innovation activities which suggests that the governance processes within the bank needs to be simplified and allow for the right amount of risk to drive innovation.

Scholars such as Vermeulen (2004), Cormican and O’Sullivan (2004) and Hidalgo and Albors (2008) all expressed supporting views that multiple tools need to be used to drive innovation; these tools include such as common focused vision, strong leadership and supportive communication that is widespread at all levels within the organisation. The selection of the tools should be context based. The scholarly work highly reconciles to the findings of this study where the importance of having the right elements such as strategy, leadership, tools and communication as well as performance evaluation framework in place is critical for the two management disciplines to be effectively integrated. Strategic innovation from TIM is clearly emphasised through this finding where the organisation needs to have a stable strategy that responds to dynamic and

external changes. Management innovation layer from TIM is also important here in communicating the strategy.

Organisation innovation from TIM speaks to the importance of having an organisation structure that supports innovation demand efficiently and timeously. This management layer from TIM was evidently found in the study where the importance of having the right organisation structure that is supported by effective teams that have clear roles and responsibilities, focused capacity, appropriate capabilities, and mandate is critical for innovation within a bank.

This study has found the importance of ensuring that the bank is up to date with using the latest available and appropriate technology speaks to the technology innovation with TIM.

In summary, the finding from this research question has highlighted the importance of all the dimensions within the functional layer of TIM except market innovation that management needs to consider and apply with business process management in driving innovation activities within the banking organisation. The space-time and synergy layers within TIM arguably which is more integration focused, the importance of these two management layers from TIM were found under research question.

5.3 Discussion Pertaining to Research Question 2

Research question 2: Which of the business process management principles are the most relevant in overcoming the barriers of innovation activities in a South African banking context?

The reconciliation between the findings and literature review to this research question will be structured using the ten good BPM principles as suggested by Vom Brocke, et al. (2014) where finding against each of the principle is presented and include any other authors that has done relevant work in relation to the ten good BPM principles.

Table 7 – Reconciliation of Ten good BPM principles with findings and other scholars

Ten good BPM Principles	Findings	Other Scholars
Principle of context-awareness	This study found that when deciding on how to approach innovation management, the consideration needs to be “content or context centric” and should not have a one size fit all approach which aligns to this principle suggested.	Hidalgo and Albors (2008) supports the notion that no one-size-fits-all tool exist to drive innovation but rather a combination of tools should be used in order to address the need of the situation.
Principle of continuity	The need for a structured innovation process from the study points to innovation should be permanent and not an ad-hoc initiative.	This finding is supported by Vom Brocke, et al. (2014).
Principle of enablement	A number of enabling factors were found in the study which aligns to the enablement principle of building capabilities such as identification and retention of serial innovators, hiring self-starters’ mindset employees and having dedicated innovation champions. The study also found that not having the right skillset and adequate capabilities inhibits innovation.	Di Stefano, Gambardella and Verona (2012) found that internal organisational resources, knowledge and competence is a crucial dimension in providing a synthesis of technology and source of innovation. Wallin and Hacklin (2013) argued that the body of knowledge of two distinct fields, such as innovation management and business process management can be integrated to unlock the value of innovation

		management. While integrating the knowledge, special attention needs to be also given to inter-organisational and the human capital capabilities.
Principle of holism	Limited finding on the principle of holism was noted in the study. Only mention in this aspect was the preference towards product innovation. This limited finding could be as a function of the fact that the organisation under study does not restrict the type of innovation that is driven by employees.	Rothwell (1995) in his innovation model incorporated functional integration within an organisation and that defined that innovation process as parallel activities across organisational functions. Complex problems arise from multiple components interacting and therefore root causes for the complex problems cannot be easily separated and needs to be solved with a system view (Poli, 2013; Cilliers, 2000). Balconi, Brusoni and Orsenigo (2010) identified the lack of interactions amongst the activities and the sequential process assumption as key critiques of the innovation process.

Principle of institutionalisation	The principle for institutionalisation was a major finding in the study where the importance of the right level of involvement, cross-functional, streamlined across different business segments and dedicated innovation champions.	This finding is supported by Vom Brocke, et al. (2014).
Principle of involvement	The study found several factors that validates the paramount need for the involvement principle in managing innovation. Findings from the study such as strong leadership and incorporate a “bottom-up” with the “top-down” approach so that employees from all levels in the organisation are involved in the creation and implementation of the innovation strategy. The organisation should avoid creating silos and have a “top-down” approach both of which limit involvement in innovation for the bank.	D’Este, Iammarino, Savona and von Tunzelmann (2012) recommended that innovation practitioners focus on driving better management at a micro-level to minimise the impact of financial or cost barriers. du Preez and Louw (2008) asserted that collaboration and interlinkages between organisational functions and stakeholders is of paramount importance. Docherty (2006) further suggests that innovation takes place within a closed network of

		stakeholders and factors that are internal and external to the organisation. Furthermore, Cormican and O'Sullivan (2004) established that employees' contribution to innovation was widespread at all levels and high level of proficiency of exploiting innovation ideas to products and services were observed in the successful organisations.
Principle of joint understanding	The study found that sufficient focus needs to be devoted to ensuring all employees have the right level of understanding on innovation management and BPM so that innovation activities can be effective and successful.	This finding is supported by Vom Brocke, et al. (2014).
Principle of purpose	The criticality of a clear and holistic organisational innovation strategy that delivers value was emphasised by the findings which substantiates this principle of purpose. Explicit innovation focus was	Cormican and O'Sullivan (2004) established that organisations that were effective in driving innovation had in common focused vision, strong leadership and customer orientation.

	another dimension from the findings in support of purpose.	
Principle of simplicity	The study found a preference for the principle of simplicity where the innovation process should be flexible to cater for creativity, delivers rapid deployment and allows for “fail fast so lessons can be learnt, and appropriate risks can be taken. Organisation should avoid excessive “red tape and complex approval process that slow or frustrate the innovation activities.	This finding is supported by Vom Brocke, et al. (2014).
Principle of technology appropriation	The importance of this principle came through strongly in the study where exploration and adoption of new technological platforms in the industry should be a continuous focus for the management of innovation. The consideration for technology security needs to be carefully balanced so that it does not prevent innovation.	Di Stefano, Gambardella and Verona (2012) found that technology is a key factor for innovation.

5.4 Discussion Pertaining to Research Question 3

Research question 3: *What is the nature and application of business process management in enhancing the implementation innovation management activities in a South African banking context?*

Many scholars have supported the integration of BPM with innovation management. vom Brocke and Schmiedel (2015) highlighted the operational excellence and disruptive innovation that can be achieved through such integration. Kirchmer (2011) from another perspective asserted that Business process management adds value across the lifecycle of innovation with its specific focus on efficiency and quality by converting ideas to marketable products or adopted processes faster and that efficiency and innovation is not a trade-off. Collaboration across functions is also fostered through BPM as pointed out by Tang, Pee and Iijima (2013). This notion supports the argument by Das, Verburg, Verbraeck and Bonebakker (2018) for organisations to consider innovation management and business process management as two interrelated elements to the holistic system of innovation management. All these scholarly notions are well supported by the study where the nature of relationship between innovation management and BPM have been found to go “hand in hand” with a high level of interdependency.

The level of integration between the two management disciplines should be context driven. The maturity of the two capabilities within the bank is suggested to be another key factor that determines the level of integration between the two practices across the different teams as well as within the bank. Innovation has still not reached its maturity stage and thus regarded as a ‘nice to have’, while business process management given its maturity stage within the banks has been appropriately embedded. Given the difference in the maturity level of the two disciplines, an integration of that is context driven thus becomes imperative to consider.

Cormican and O'Sullivan (2004) found that innovation management should be a continuous improvement process and not a destination to a journey which aligns to the finding of the study that points to asserts that the best practice for innovation management is a continuous process improvement journey rather than a destination. This is consistent with the space-time layer of TIM which asserts that innovation should be driven all the time by all members of the organisation.

5.5 Conclusion

The above chapter reconciles the findings of the study to the literature review for each of the research question. Majority of the findings from the study are well supported by the scholar work done, the study has found that such as ways to integrate BPM principles with the various layers of innovation management from TIM is by ensuring that there is an enabling innovation culture with a strong focus on human capital. Furthermore, all the innovation management layers from TIM with exception of market innovation and all the BPM principles with the exception of the principle of holism were found in the study to be important in applying the two management disciplines together in driving the innovation activities within a bank.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This chapter provides conclusions and recommendations from the study performed regarding the dynamics of applying of BPM principles with innovation management.

6.2 Conclusions regarding research questions

The study has found that ways to integrate the BPM principles with total innovation management layers is by ensuring that there is an enabling innovation culture with a strong focus on human capital such as empowering or training all employees in the organisation with the robust and common understanding of the two management disciplines and how the integration can be leveraged off to better innovation performance. The organisation also needs to ensure that the suitable tools such as strategy, leadership, sponsorship, frameworks and communication are in place for employees to use when needed.

Almost all the BPM principles with exception of the principle of holism were found in the study to support the importance of its integration with innovation management. The finding highlights the following to be imperative while integrating BPM principles with innovation management;

- The need for a context-based innovation strategy that is relevant to the environment of the organisation at a point in time;
- An on-going innovation management process that is easy to navigate and not complex or once off;
- A supportive organisational structure that provides the necessary capacity and capability and involves all employees across the different levels and functions;
- Lastly, the adoption of new technology is important.

The nature of applying the BPM principles and innovation management found in the study is that it needs to go “hand in hand”. This integration of the BPM

principles can be in the various dimensions of the total innovation management. The maturity of the two management capabilities within the bank is a key factor that would impact the level of integration. Finally, the integration should be continuously evaluated and improved to achieve the optimal innovation performance.

6.3 Managerial Recommendations

The following recommendations are made in relation to integrating BPM principles with innovation management. The recommendations are linked to the specific BPM principle that it relates to with further explanation for each recommendation.

Recommendation 1: Principle of joint understanding – structured training program

To effectively integrate the two management disciplines, management of the organisation needs to consider developing a structured innovation management training where all employees in different roles to innovation management are required to enrol and complete. The training should include key material such as the innovation strategy, the innovation management process, BPM process, BPM principles followed by the bank, the various roles and responsibilities for each of the employees with the organisation from an innovation perspective. Regular reviews should be made to the training program and its material to ensure that the context is relevant and kept up to date. Through the structured training program, a robust and solid foundation of joint understanding can be enhanced across the organisation. The training should be made compulsory through the inclusion of KPI's and escalated for action in the event of non-completion.

Recommendation 2: Principle of purpose & context - clear holistic innovation strategy

To achieve strategic competitiveness, it is paramount for every employee in the bank to have a clear and common goal when it comes to innovation. By having a holistic innovation strategy, it provides a view of where the organisation's focus will be in relation to innovation and how it will be evaluated. With such clarity, potential issues such as conflicts in priority, lack of funding, overzealous risk

management or misalignment of objectives across different business segments and function teams in the bank can be effectively managed to achieve and enable further innovation performance.

Recommendation 3: Principle of simplicity - lean governance innovation process

A complex and heavily governed innovation process slows down and stiles innovation activities which ultimately make innovation performance poor. Banks, however, must strike the right balance between ensuring the right risk management is in place but at the same time allow for innovation to take place which means taking risks. The right balance will need to deliver a governance process that is easy to navigate, allows for innovation to take place efficiently without comprising on the required risk mitigation. With the trimming of governance process for innovation, the principle of simplicity will be experienced by all stakeholders involved.

6.4 Suggestions for further research

As suggested by Creswell (2014) as much as research addresses specific questions but it often leads to more questions that need to be explored. This study is no exception. Below is the list of suggested areas for further research:

1. A comparison study that investigates between organisations that have and organisations that have not integrated the BPM principles into its innovation management practice and the difference in its respective innovation performance will further support the importance of BPM principles in driving innovation. *To what extend does the difference in integration of BPM principles with innovation management capabilities within a bank impact its innovation performance?*
2. While the study has established that many of the BPM principles further enables the innovation management in a South African banking organisation, it would be worth exploring whether BPM principles also drive innovation management in other financial services organisations such as insurers or asset managers in South Africa. *What is the nature*

and application of business process management in enhancing the implementation innovation management activities for an insurer or asset managers in a South African context?

3. The difference in maturity between the two management capabilities was found in the study to be a factor that have led to the limited integration between the management disciplines in the bank. With this finding on difference in maturity, a further area to explore is: *To what extend does the difference in maturity of the BPM and innovation management capabilities within a bank impact its innovation performance?*

6.5 Conclusion

This study has achieved its objective in answering the research questions as articulated in the dissertation. The study has made a significant contribution to body of knowledge on innovation management and business process management. The study most importantly identified the layers within TIM and BPM principles that can enable the innovation performance for a bank and raises further areas that can be explored. The study allowed for an integration and exchange between the skilled professionals daily discourse in industry and academic frameworks on innovation and business process management knowledge.

Through the finding and recommendations, the researcher is of the view that the study is useful to innovation management and BPM scholars, professionals, banks and society broadly with suggested areas for further research.

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APPENDICES

Appendix A – RESEARCH INTERVIEW PROTOCOL

Interviewee:

Date:

Interviewer: Kevin Chang

**Topic: Business process
management principles as enablers
to the implementation of innovation
management in a South African
Bank**

*** Desired Outcomes/Objective of the Interview**

- This is a qualitative research.
- I will use semi-structured interviews.
- The objective of the interviews is to investigate the enablement of innovation management through the use of business process management principles within the context of the South African banking industry

*** Key data about the interview: or the structure of the interview**

- Purpose and duration of interview
- This should take approximately one hour

*** Information on the interviewee:**

- In which field is the interviewee:
- Name of the organisation:
- Title/Position:
- Experience of the interviewee:

***Key information about the interviewee's organisation:**

I will write information that briefly explains the company for which the interviewee works

*** Key points for how to introduce/position interview**

- We start the interview by establishing the interviewee's credentials
- This will help me confirm that the interviewee is suitable and or relevant for the interview
- I will then direct questions according to current and past innovation practices. This will be in line with the SSI framework - especially the two key themes of knowledge and technology, and Actors and networks.
- I then will move to what should be considered for the future.
- I round it off with contextual questions about factors that could be relevant but that may not have been asked. Or persons of interest who the interviewee may feel ought to be interviewed.

*** Documentation plan: Additional notes on which to rely when doing the interviews**

- I will access publicly available information about each interviewee's organisations ahead of the interview.
- These may include documents available on websites about the performance of the company, assessments of the industry, their roles in various organisations and any articles they may have written that are relevant to the interview.
- These will be helpful for summarisation and comparisons when assessments are done

Appendix B - DRAFT REQUEST LETTER

Dear Head of Department,

My name Kevin Chang. I am a registered student for Master of Management in the Field of Innovation Studies degree at Wits Business School. As part of the programme and to complete my studies, I am required to conduct research.

I write to request your participation in my research which is an investigation into the enablement of innovation management through the use of business process management principles within the context of the South African banking industry. I will be looking into issues of innovation management, challenges with innovation activities and performances as well as business process management. Your participation and contribution is important to me and could help the sector find ways of effectively overcoming challenges around innovation and better its performance. The interview will take approximately 60 minutes of your time.

Should you feel inclined to participate, such participation will be voluntary. And you may, at any point, revoke your participation if you wish to do so. Should there be aspects you wish to share but not have them attributed to yourself for fear of victimisation by your organisation or the sector, you are free to point these out to me. The questions are here attached.

Thanking you in anticipation of your help

Yours truly,

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Appendix C - INTERVIEW QUESTIONS

Introduction

The objective of the interviews is to investigate the enablement of innovation management through the use of business process management principles within the context of the South African banking industry

Section 1: Demographic Questions

Interview date and time

Position in the organisation

Duration in current position

Section 2: Interview Questions

Innovation Management:

What is your understanding of innovation & innovation management?

What type of and key innovation management process or practice is followed by the bank?

What makes the innovation management process followed by the bank effective?

What type of key barriers are often experienced when driving innovation in the bank?

What type of recommendations would you make and put in place for the bank to more effectively overcome these barriers and achieve innovation performance?

Business Process Management:

What is your understanding of business process management?

What type of business management process or practice is followed by the bank?

What makes the business management process followed by the bank effective?

Relationships Between Innovation Management and Business Process Management

Has the organisation used or merged the two management processes to better innovation outcomes? If yes how, if no, why not?

Would you consider innovation management process as a key business management process for the bank? If yes or no, why or why not?

Would you consider utilising business process management best practices or principles to drive innovation performance if yes, how? If no, why not?

Conclusion