CENTRALISING INFORMATION TECHNOLOGY FOR THE DELIVERY OF FINANCIAL INVESTMENT SERVICES: AN RMB IMPACT STUDY

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Declaration of authenticity

I declare that the research project, “Centralising Information Technology for the Delivery of Financial Investment Services: An RMB Impact Study”, is my own work and that each source of information used has been acknowledged by means of a complete reference. This dissertation has not been submitted before for any other research project, degree or examination at any university.

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Summary

The study sought to explore the impact of a Centralised Business Technology Structure and close any gaps which are impacting the strategy to further improve the information technology services within RMB. The study was therefore undertaken to compile relevant research that would provide insight into closing gaps which impact the organisation from delivering IT services to the organisation. Its objectives were (1) to examine the impact on service delivery when the IT function is centralised in an organisation and (2) to find out if the chosen centralisation model was a 'best-fit' for BT in RMB. The answer to the research question was investigated through the use of a qualitative method. The results in this study have been derived from interviews. In total, 45 people were requested to be interviewed, and out of the 45 potential respondents, 30 accepted via email to be interviewed, giving a response rate of 67%. The themes and data were then interpreted in graphs, tables and charts. The results of the study provided an insightful perspective regarding the underestimation of the impact on people, process and system simplification. It is also noted from the study that when one pursues IT centralisation in a strategic vacuum of only cost-savings target, better architectural alignment, enhanced IT capability, and better IT career paths for staff, one also needs to understand the business goals that they need to support to be able to select the most appropriate level of centralisation.

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List of Abbreviations and Acronyms

BCBS	Basel Committee on Banking Supervision
BT	Business Technology
BU	Business Unit
CAB	Change Advisory Board
CEB	Corporate Executive Board
EY	Ernst and Young
FA	Functional Area
GM	Global Market
IT	Information Technology
OD	Organisational Development
PMO	Project Management Office
PM	Project Manager
RMB	Rand Merchant Bank

Chapter 1: Introduction and background to the study

1.1. Introduction

In December 2010, the Basel Committee on Banking Supervision (BCBS) published the Basel III documents. According to BCBS (2010), a comprehensive set of reform measures designed to improve the regulation, supervision and risk management within the financial sector was published.

Basel III introduced several new and enhanced rules, including the introduction of a capital and global liquidity standard. One of the strategic responses which organisations can apply is to undertake strategic cost reductions, including business structural changes, or having a shared service (Accenture, 2010).

According to Van de Ven and Poole (1995), the external environment of today's business has changed so much and at a pace that requires a business to continuously respond to new challenges in order to be more competitive. The ability to respond effectively to the ever-changing market conditions invariably necessitates significant internal structural changes within an organisation. According to Carley and Lee (1998), if organisations do not dynamically respond to a changing environment then they will face a serious challenge facing the future. Carley and Lee (1998) further point out that to create a competitive advantage, organisations need to make information technology (IT) structural decisions which have a major impact on the delivery of IT in an organisation.

1.2. Research context background

This research is based on Rand Merchant Bank (RMB), which is a division of FirstRand Bank Limited, one of the major investment banks in South Africa. RMB is a leading African corporate and investment bank and one of the largest financial service groups in Africa (RMB, 2016). RMB offers clients innovative trading, corporate banking, investing solutions, and funding.

RMB currently has approximately 260 information technology permanent staff members in their Business Technology (BT) division in RMB. RMB had a highly fragmented systems environment, resulting from a historically decentralised structure of IT.

Prior to 2012, each business unit had its own IT support and delivery teams, which meant that each business unit area defined its own technology path. A review of the issues facing the delivery of IT was undertaken in 2012, and it was decided that this model was not suitable for the following reasons: it introduced high levels of complexity; it significantly increased operational risk; and it substantially reduced the ability to adapt and leverage platforms across the whole of the bank. A business strategy to move to a centralised BT

model was considered. The driver(s) for moving to a centralised model were to enable technology cost savings, better architectural alignment, enhanced IT capability, better IT career paths for staff, and ultimately the establishment of RMB IT platforms that would offer a competitive advantage to the bank. According to Campbell, Kunisch and Muller-Stewens (2011), organisations moving from a decentralised structure to a centralised structure are likely to face significant challenges from a people, processes, data and technologies perspective.

1.3. Problem statement

Organisations of all sizes and across all industries face significant pressure, as they grow their businesses in a competitive and global economy that is constantly reorganising and restructuring in response to economic conditions, an onslaught of new technologies and response to global trends. The intention of this research is to explore the impact of a Centralised Business Technology Structure and close any gaps which are impacting the strategy to further improve IT services within RMB.

1.4. Aim and objectives of the study

Following the problem statement, the aim of the study was to evaluate the impact of centralisation of IT on the delivery of financial services at RMB. Table 1.1 summarises the research questions and related objectives that were pursued in the study.

Questions	Objectives
What is BT Centralisation?	To understand what were the real objectives and expectations of centralising IT
What is the impact of centralising the IT structure in an organisation?	To investigate the impact of centralising the IT structure in an organisation To examine the impact on service delivery when the IT function is centralised in an organisation
What are the benefits of centralising the IT structure?	To find out and understand the benefits of a centralised IT structure
What model was used for centralisation of IT in RMB?	To find out if the chosen centralisation model was a 'best-fit' for BT in RMB
What is the impact of centralisation of IT on the following: • **Demand and Supply** • **Prioritisation** • **Project Delivery** • **Production Support?**	To investigate the challenges that impact service delivery when you centralise IT: • Demand and Supply • Prioritisation • Project Delivery • Production Support

Table 1.1: Research questions and objectives

To answer the research question, information on the extent to which IT was centralised will be required.

1.5. Scope of the research

1.5.1. Limitations

The research was limited to RMB and was not extended to other financial institutions. The results and assumptions of this research are therefore based on a single organisation. This means the study and results could be different to those of other organisations.

1.5.2. Delimitations

The research was a non-probability research, and results could possibly be applied to other similar organisations.

1.5.3. Assumptions

The following assumptions were made when deciding to undertake this study:

- Availability of RMB BT Management Board, RMB BT Senior Management and RMB Business Senior Management.
- The sample population agreed for the research represents that of the BT and business environment within the organisation.
- The leadership team will be available and will be willing to discuss issues openly.
- RMB BT staff and business staff will be available when needed for conducting research methods.

1.6. Summary and structure of the dissertation

Chapter 1 has served as the introduction by providing information on the study purpose, problem statement, as well as details regarding the study background. Chapter 2 will be a literature review, followed by the theoretical framework in Chapter 3. The research methodology and research design are discussed in Chapter 4. In Chapter 5, the findings of the study are deliberated in accordance with the statement of the problem as well as associated research questions. Lastly, Chapter 6 elaborates on the recommendations for implementation.

Chapter 2: Literature review

2.1. Introduction

The previous chapter provided an introduction and background to the study. This chapter draws on information and approaches from diverse sources, notably obtained from sections on information technology in textbooks, journals, articles and information from the Internet, which was used to support this research.

2.2. What is IT centralisation?

The current macroeconomic environment does not ensure that excellent top line performance will alone translate into good financial results (Chen, Preston & Xia, 2010). As an organisation's information technology (IT) investment goals evolve from improving operational efficiency to enhancing strategic growth, it is expected that leaders extend their traditional supply-side leadership, which role focuses on exploiting existing IT competencies to support known business needs. The demand-side leadership role focuses on exploring new IT-enabled business opportunities that result in competitive advantage (Chen et al., 2010).

According to Katz (2007), the definition of centralisation is the concentration of formal authority at the top levels of an organisation. He further states that in a centralised organisation, knowledge, information and ideas are concentrated at the top, and decisions are cascaded down the organisation. On the other hand, Desemo (2010) refers to centralisation as the allocation of all IT resources to one particular business unit that provides IT services to the whole organisation and is characterised by control, efficiency and economy. It is also defined as an attempt to improve efficiency by way of taking advantage of potential economies of scale and improving reliability by minimising opportunities for error (Desemo, 2010).

It may be counter-intuitive, but if done right, IT centralisation can save money and increase agility. While centralisation is not fit for all organisations, coming out of a recession and facing an uncertain recovery, these combined benefits look attractive to many leadership teams.

2.3. Advantage and disadvantage of centralisation

In times of continued global economic uncertainty, cost reduction and effective risk management remain key imperatives. Organisations are required to manage slow growth in maturing markets and respond to the ever-changing and increasing burden of regulatory compliance (Ernst and Young, 2014).

Centralisation of IT within an organisation offers many advantages at both strategic and operational levels (Rickards, 2007). The advantages include:

- Centralisation is a cost-effective model to use, as more likely the technology will be standardised across the organisation. When technology is highly standardised in an organisation, the costs of technology maintenance, upgrades and migration become less costly, as the technology is known and a depth of skills are available. Because of that, the technology is exploited more effectively within the organisation, resulting in a controlled, efficient technology stack.

- Economies of scale are also magnified when IT infrastructure is managed for the whole organisation rather than having many parts. Duplication of systems is also avoided.

According to Desemo (2010), another advantage of centralised IT is the benefit of having a single point of contact and accountability which covers all information technology support areas. He further states that a centralised IT organisation provides an effective way of utilising resources in relevant areas within the organisation, thus enabling a reduction in the number of resources, avoiding duplication of effort, and ultimately resulting in saving of costs and time in the delivery of IT services.

Centralised Systems	Advantage	Disadvantage
Organisation Consideration	Enhances corporate consolidation	Prone to cause barriers to acceptance
	Easy to implement and maintain standards	Higher risk of failure
	Shared development cost	Vulnerable to organisation overhead reduction
Cost Factors	Reduced record storage duplication	May require costly controls
	Fewer operators cost less	Danger of expensive overhead
	Fuller utilisation of processing capability and capacity	

Table 2.1: Advantages and disadvantages of centralisation

2.4. Guide to IT centralisation

There are some step-by-step guides to IT centralisation (Corporate Executive Board, 2010). Below are the steps.

1. Determine the right degree of IT centralisation

- Align the degree of IT centralisation with enterprise needs.
- Evaluate potential centralisation options.
- Understand governance requirements.
- Make the business case for centralisation.

2. Develop a Centralisation Plan

- Document the as-is state.
- Sequence migration.

- Drive complexity reduction and business process improvement.
- Create an end-to-end centralisation plan.
- Measure change impact on stakeholders.

3. Design a Centralisation Communication Strategy

- Segment stakeholders.
- Develop a communication plan.
- Facilitate message distribution.
- Assess message absorption.

4. Ensure effective delivery from the start

- Create an effective IT-business interface.
- Provide transparency to business partners.
- Implement balanced project prioritisation.
- Upgrade incident management.
- Improve resource allocation.

5. Transition IT staff

- Harmonise roles and develop career paths.
- Retain critical talent.
- Manage separation conversations.
- Upskill retained IT staff.

2.5. Factors influencing centralisation

According to Theresa (2007), when it comes to making IT resources, functions and operations decisions, there is no known model to fit all situations. The following factors should be considered when centralising IT (Theresa, 2007):

- An environment must be created for employees to be able to move among many business units and still be able to function within the technology setting, without having to be retrained.
- Systems and networks need to integrate and interact with a minimum of disruption and inconvenience to the end user. End users should not have to understand the architecture to use a system.
- To be effective for a broad range of IT users and clients, the IT organisation must include a diversity of skills and specialisations.
- Segregation of duties must be considered, as no one person should be able to accomplish a security breach.

On the other side, Theresa (2007) makes a note that one can gain efficiency through centralisation, but the specialised effectiveness of services and shared priorities are better served with decentralisation.

2.6. Benefits of a centralised business technology structure

The benefits of moving to a common and optimised centralised structure can be defined by four key characteristics (EY, 2014):

- The most significant driver is cost reduction, as it will typically yield cost savings of 30% to 50%. However, cost reduction is not the only source of value to be realised in the move to a new centralised operating model; it also brings about benefits in risk management and compliance, scalability, and agility.
- Centralised operating model helps to ensure defined risk owners and to whom the operating centre is accountable to; it also provides a timely and valuable review on the alignment between risk, compliance and assurance activities.
- Working with a centralised capability, an organisation is able to extend and contract its scale and scope of services for new entities without a significant increase in costs.

- The centralised model brings about the agility to automate and standardise processes, control changes to be implemented and rolled out more effectively and efficiently.

Centralisation was the most common organisational restructuring activity after workforce reductions in 2008 and 2009 (CEB, 2010). It is further stated that the benefit which is offered by centralisation offers significant potential cost savings and numerous additional opportunities for improving the effectiveness of IT service provision and supporting organisational goals.

Figure 2.1 illustrates larger potential benefits that increase the drive to centralisation.

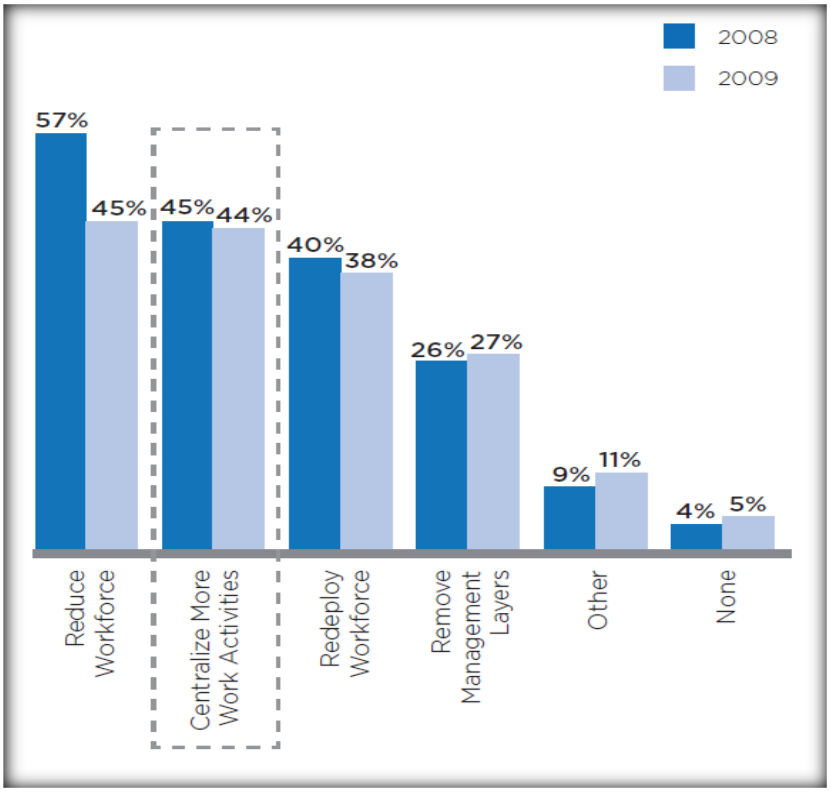


Figure 1.1: Organisational redesign activity
Source: CEB (2010)

Figure 2.2 indicates reported saving resulting from centralisation.

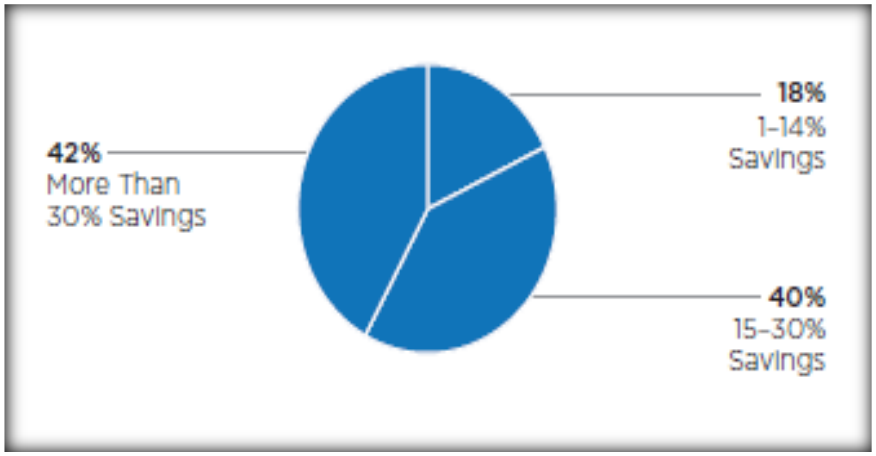


Figure 2.2: Savings from centralisation
Source: CEB (2010)

Figure 2.3 shows significant drivers for centralisation.

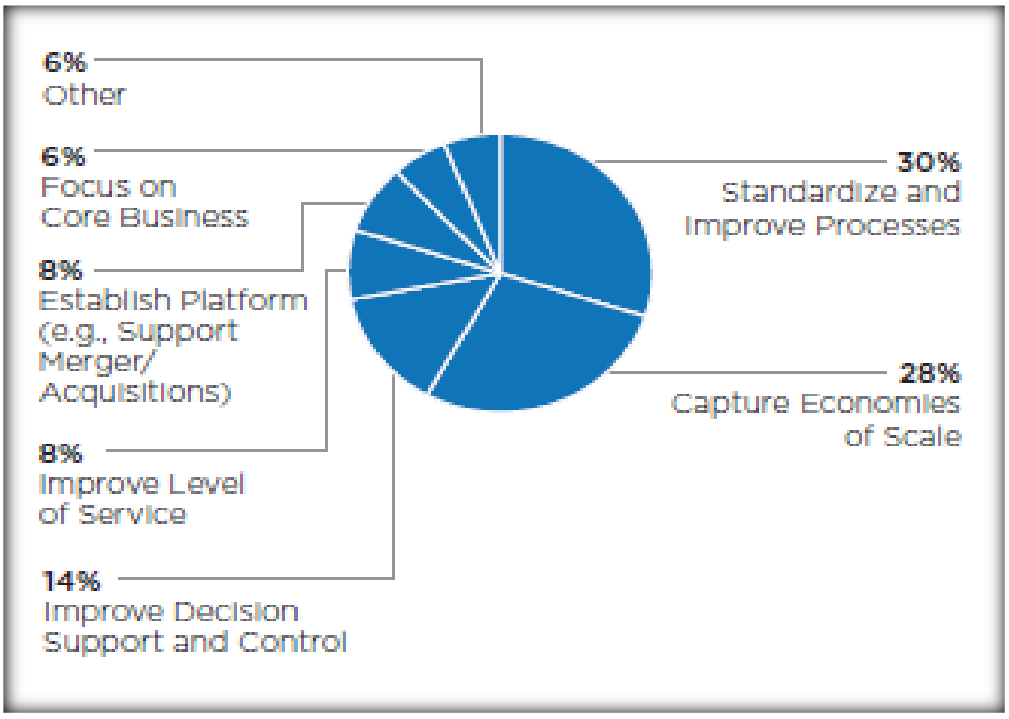


Figure 2.3: Drivers for centralisation
Source: CEB (2010)

Poorly planned and executed centralisation efforts can increase the cost of delivering IT services to the business (CEB, 2010). Even though cost savings from economies of scale can save an organisation up to 40% over a decentralised IT structure, these savings are negated by increased overheads as a result of internal complexity, misalignment to business needs, and ineffective change management (CEB, 2010).

Figure 2.4 highlights the unintended cost of centralisation.

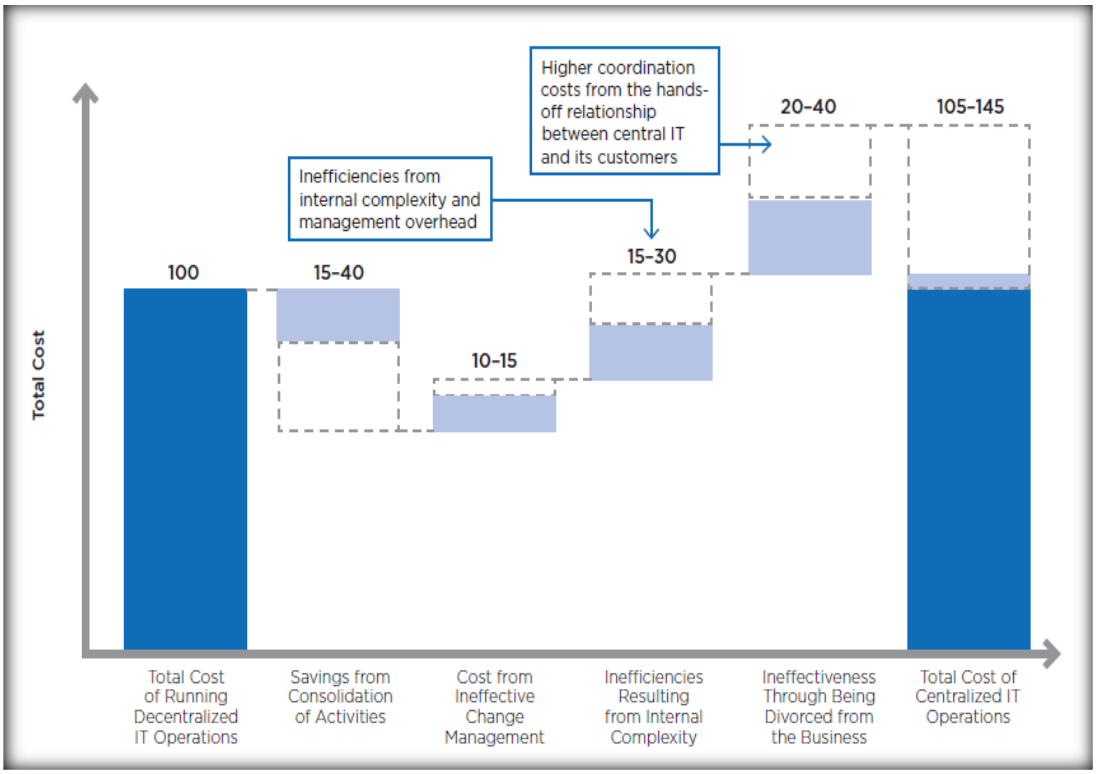


Figure 2.4: Unintended cost of centralisation
Source: CEB (2010)

Consolidation and standardisation of IT architecture have become more important, particularly in large organisations (De Vries, Douwstra & Tjira, 2007). Perhaps the time is right to consider a different paradigm for the efficient delivery of IT services, a model based not on the question of centralised services but rather on hybrid solutions which are framed in terms of demand and supply (Wagger, 2007). The next section considers using this model in a centralised BT structure.

2.7. Demand and supply model

The demand and supply model is where the IT resources are divided into two major groups. According to Rau and Mark (2006), one will have someone that negotiates with business on IT strategy and IT projects and also manages the delivery of projects. The second group is

responsible for managing the infrastructure and delivering new IT applications. The split between demand and supply is driven by a desire to get better economics or responsiveness out of resources that are shared (Mark, 2007). The model has to do with dividing IT into demand and supply, with the intention of assisting the organisation to realise the full IT investment potential.

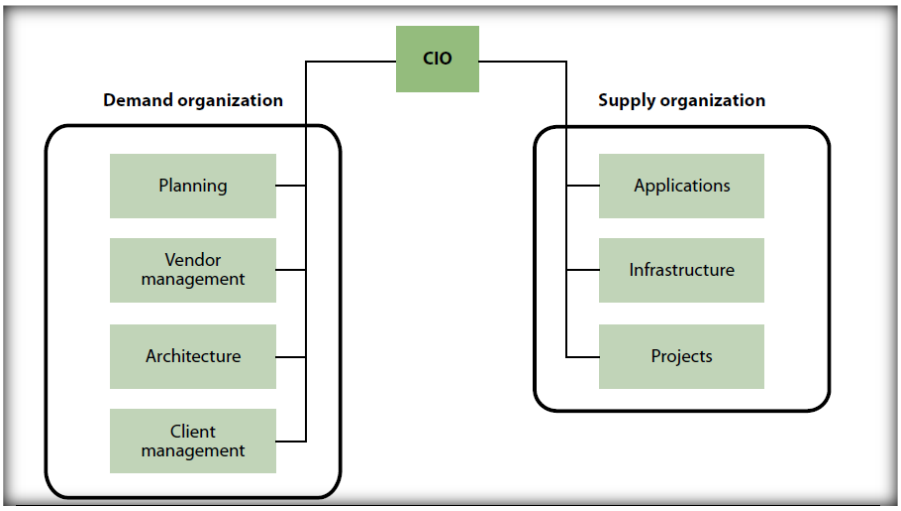


Figure 2.5: Demand and supply model

Most IT companies have some separation between demand and supply. The demand-orientated function includes relationship management, planning and vendor management. Infrastructure side is largely on the supply side of the organisation (Cecere, Cullen & DeGennaro, 2008).

2.7.1. Demand

The role of demand in the demand and supply model, according to Rau (2007), is to decide which project takes priority and to act as a business expert. It also provides the interface between business users and internal and external IT suppliers. They work with the business to define their needs and provide oversight for delivery. According to Chen et al. (2010), the demand side leads the organisation to explore new IT-driven business opportunities that should lead to organisational innovations and business growth. It is more externally focused on partnering with business to innovate and change the business. More importantly, the person given the role should have a deep knowledge of their customer's process and a solid understanding of applications, and also include experience as an application developer (Mark, 2007). Lastly, the demand role requires a person who is an expert in business process analysis, who has proficiency in appropriate domains, and who also has a deep knowledge of key drivers that affect designs including policy, security, regulatory and architecture (Wagger, 2007).

2.7.2. Supply

The supply side includes traditional infrastructure, application and enterprise project groups. The other traditional IT services in the supply side include the technical design, building, testing and deployment of applications. It exploits existing IT resources and competencies to improve the efficiency of the organisation's operations (Chen et al., 2010). It also tends to be internally focused on managing the IT function to deliver cost-effective IT support.

2.7.3. Relationship between demand and supply model

Organisations use IT mainly to improve efficiency through automating existing business processes in various individual business functions (Rau, 2007). According to Chen et al. (2010), the IT function has been typically viewed as a cost centre, and the IT manager's role is to manage the IT function to provide reliable IT systems and support services to the business function. In today's environment, IT constantly provides new capabilities that fundamentally change business processes and transform organisations both externally and internally. Organisations that invest in IT expect to obtain not only operational efficiency but also transformative innovations that change the organisation's market position. It is expected that the IT function not only provide efficient and reliable technical support but also take a leading role in exploring new IT-enabled business innovation (Chen et al., 2010).

According to Mark and Rau (2006), in a traditional model, business units frequently finance their own application development projects. While they are often satisfied with their return on investment, the organisation as a whole may spend more than it should. With the introduction of a demand management organisation, the business and its demand group should work together to define a capabilities strategy that shows how the application portfolio must change to achieve business goals. The entire demand organisation should then coordinate with the business units to make enterprise-wide funding decisions, based on strategy, which include not only individual projects but longer-term decisions on architectures and application portfolios.

Mark and Rau (2006) further state that in traditional models, the business customer envisions and then IT designs, builds, tests, and deploys. Unfortunately, what is delivered may not be what the business envisioned. In the demand and supply model, the demand organisation drives this envisioning phase regardless of whether the original idea came from the business, the demand organisation or the supply organisation. The demand group brings the business and the supply organisation into one conversation to explore ideas which the demand organisation ultimately translates into a business requirements document. The supply organisation then manages the next phases: technical design, building, and testing. The demand organisation will be involved during those phases and draw in the business function as needed.

2.7.4. Differentiators of demand and supply organisations from other models

Key differentiators of demand and supply are listed below, according to Cecere et al. (2008).

- There are two types of project managers. On the demand-side project managers provide project estimates and oversight to ensure that projects meet business needs. Supply-side project managers manage projects.
- The demand-side skills are more business-orientated. IT people on the demand side must know the business process, activities and goals. They are less technical than those doing a similar function in the traditional IT shop.
- The application groups are divided into client-facing and non-client-facing groups. The client-facing groups are part of the demand organisation and work with customers to determine requirements, manage priorities, estimate resources and ensure ownership. The non-client-facing groups maintain systems, build and deploy, and are in the supply organisation.

2.7.5. Advantage of the demand and supply model

The demand and supply model increases specialisation but also sacrifices some flexibility and accountability (Cecere et al., 2008). It enables the demand function to become better at capturing the needs of IT customers and matching these needs with IT services. The model provides a better management and coordination of multiple suppliers, meaning that those on the demand side are specialists in managing multiple internal and external suppliers. It also gives a better match of supply with demand, as demand people are specialists in defining and translating business requirements into IT requirements. Furthermore, Cecere et al. (2008) state that demand people are experts in matching these needs to services from internal and external providers. Separating demand from supply eliminates a major distraction from both sides. Improved standardisation of supply processes and capabilities as the consistent interface mandates users to work with supply and the consolidation of supply function into a single organisation both drive standardisation. Lastly, the model brings greater focus on strategic and enterprise function.

Pros	Cons
Better management and coordination of multiple suppliers	Accountability is reduced
Better matching of supply with demand	Collaboration is reduced across the divide
Greater focus by two very different functions	Oversight costs increase
Improved stand**ardisation of supply process and capabilities**	Greater depths of skills are required

Table 2.2: Pros and cons of the demand and supply model

While the model brings a number of advantages, it also has significant disadvantages, as indicated in Table 2.2. Traditionally, an application specialist worked with business users to define requirements and then implemented systems to meet their needs. Accountability is reduced, as the demand and supply model separates responsibility, thereby increasing handoffs and diffusing accountability. Oversight costs increase and greater depth of skills are required, as normally highly technical people do not need the skills associated with dealing with non-technical people. Similarly, the demand side does not require the same depth of technical skills as those building and maintaining systems.

2.7.6. Demand and supply IT model prerequisites

As much as the demand and supply model would benefit an organisation, the model is based on specialisation, standardisation and consolidation (Cecere et al., 2008). There are a few aspects that should be considered before moving to a demand and supply model. These include the following:

- The IT resources should be consolidated because fragmented IT groups reduce the scale benefits of the demand and supply model. Highly distributed IT tends to be reactive and focuses on daily processing and lacks the excess capacity to develop standards and upgrade processes. If these application groups are not first consolidated, the separation built into the demand/supply organisations further fragments these groups. This makes it more difficult to form the critical mass of people required to specialise in any way.

- An establishment of strong vendors, project and programme management is important. The vendor managers must be experienced with multiple internal and external suppliers. Demand-side project managers must be experienced in overseeing multiple projects rather than in their traditional role of managing them. Programme management secures funding, approves estimates, and negotiates for functionality through the middleman of the demand organisation.

- Acquiring solutions architects is vital. Developing high-level designs that source from multiple providers is a demand-side function and an art form today. Solutions architects must know the services provided, how they are provided, and how they can be integrated to provide complete solutions to business problems.

- Supply groups need to be evaluated and continually monitored based on objective criteria, and they should be tracked by progress made as well as comparison to other service providers.

2.8. Conclusion

This chapter presented the literature review and analysis of various factors about IT centralisation. The chapter highlighted factors influencing centralisation and benefits of centralisation (Theresa, 2007).

The next chapter will discuss the theoretical framework for this study.

Chapter 3: Theoretical framework

3.1. Introduction

The preceding chapter reviewed literature pertinent to this study. This chapter focuses on the theoretical framework of the study.

Organisational development through planned change theory is one of the major frameworks used for analysing organisations, which uses theories from human behaviour and human development to provide an analytical approach comprised of a series of dimensions which describe the ongoing dynamics within an organisation (Kolb & Frohman, 1970). It is also a normative theory which describes an effective organisation and thus sets certain behavioural and structural goals for a change process.

3.2. Organisational development

Organisational development (OD) is often defined as a planned, top-down, organisation-wide effort to increase the organisation's effectiveness and health. According to Bennis (1969), OD is a complex strategy intended to change the beliefs, attitudes, values, and structure of organisations so that they can better adapt to new technologies, markets, and challenges. OD is neither "anything done to better an organization" nor is it "the training function of the organization"; it is a particular kind of change process designed to bring about a particular kind of end result. OD can involve interventions in the organisation's "processes", using behavioural science knowledge as well as organisational reflection, system improvement, planning, and self-analysis.

The major assumptions about human behaviour on which organisational development theories and concepts are based are those expressed by MacGregor (1960). These include:

- The average human being does not inherently dislike work and may derive satisfaction from it.
- Man will exercise self-direction and self-control in the service of objectives to which he is committed.
- Commitment to objectives is a function of the reward associated with their achievement.
- The average human being learns, under proper conditions, not only to accept but to seek responsibility.

Under the conditions of modern industrial life, the intellectual potential of the average human being is only partially utilised. The approach directs attention to the two major aspects:

- identifies a process of planned organisation change
- identifies an organisation sub-unit which interacts with other business units

3.2.1. Planned change

In assessing the impact of planned model developed in Figure 3.1 by Kolb and Frohman (1970) will be used. The object of this complex process is a change which accurately addresses organisational needs, and the organisational development theories model has seven stages (Kolb & Frohman, 1970). The model of planned change of Kolb and Frohman (1970) is based on the principle that information must be freely and openly shared between the organisation and the change agent, and this information must be able to be translated into action. According to Porras and Robertson (1991), planned change is defined as a proactive change initiated by the members of the organisation and deliberately implemented by them with a view to anticipating or responding to environmental change or to pursuing new opportunities. As stated by Cummings and Worley (2008), it is initiated within the organisation in response to needs that appear in the environment and that affect many segments of an organisation.

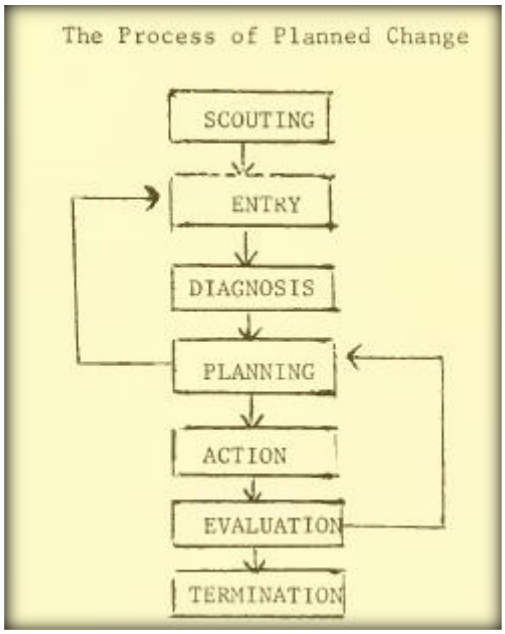


Figure 3.1: The Kolb/Frohman planned change

3.2.1.1. Scouting

This phase has to do with identifying the best point to enter or understand systems which one would be changing (Kolb & Frohman, 1970). This is the period during which one becomes acquainted and determines the appropriateness of a contract based on an evaluation of needs and expertise. In choosing the appropriate entry point, the interrelationships among the various units of the system (whether individuals, groups or institutions) are especially important. Acceptance and implementation of change most often require that the recognised power structure of the system be used to establish change. According to Kolb and Frohman (1970), introducing change where power structure and human interrelationships are ambiguous is important in order to identify the interrelationships.

3.2.1.2. Entry

The process of developing a relationship between the change agent and the organisation is the establishment of a collaborative relationship. Collaboration is a critical aspect of the organisation development model. Collaboration implies interdependence, where the interdependence is based on mutual need satisfaction and mutual influence (Kolb & Frohman, 1970). It is this aspect of the change effort which is necessary for organisation members to "own" the change and to invest in maintaining the results of the change.

3.2.1.3. Diagnosis

A feasibility study or assessment of organisation needs is worth being carried out. It is primarily a data-gathering and problem-definition process conducted jointly by staff and users. According to Cummings and Worley (2008), diagnosis is the process of understanding how the organisation is currently functioning, and it provides the information necessary to design change interventions. The main objective of the diagnostic phase, according to Kolb and Frohman (1970), is to move toward improvement by changing loosely felt difficulties into specific problems. The four elements which focus on diagnosis include the client's felt problems, the client system goals, client, and resources. The starting point would be getting the sense of the problem and the interest in the diagnostic phase. Once the problem has been identified, it is important to identify the boundaries of the subsystem with the problem and interrelationship of the subsystem with other parts of the system. This is necessary to anticipate the effect of a change in one part. The second element of the diagnosis is to define clearly the objective of the change, what the desired state of the change is. The third and fourth elements are assessed in the diagnosis of checking if resources are available to bring improved changes to the problem (Kolb & Frohman, 1970). The results of the diagnostic phase will form the starting point of the next phase, which is the planning phase.

3.2.1.4. Planning

This phase is about setting specific goals and timetables. During this stage, criteria are developed for later evaluation of the change results. The key aspect of this phase is the direct involvement of the people who were held responsible for implementing the new operation. According to Kolb and Frohman (1970), the result of this phase may require renegotiation of the entry contract. The planning phase defines the objectives to be achieved by the change. It should also provide analysis of the expected sources of resistance to the proposed changes.

3.2.1.5. Action

In the action phase, the plan of action developed in the planning phase is implemented. The implementation stage, which the model uses, is characterised by high levels of information exchange and communication among all parties. According to Kolb and Frohman (1970), action can be classified on two dimensions: the source of power used to implement the intervention and the organisational subsystem to which the intervention is addressed. The organisation change includes the people subsystem, the authority subsystem, information subsystem, task subsystem, legal/culture subsystem, and environmental subsystem.

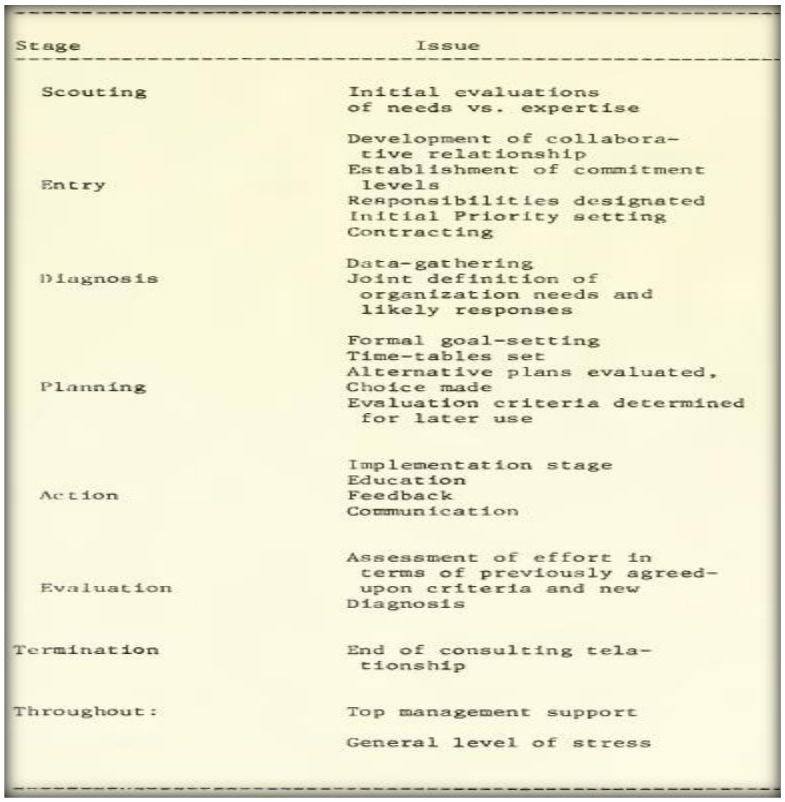
The people subsystem has two aspects: manpower flow and education. The manpower flow aspect takes the form of programmes for solution and evaluation of the organisation which regulates the flow of the individual (Patz, 1970). The education programmes have been designed to change motives, skills, and values of organisation members. The authority subsystem has a formal and an informal aspect.

3.2.1.6. Evaluation

The evaluation phase views evaluation as a discrete phase; for a computer operation and user group, it should be the scheduled evaluation of the system against originally agreed-upon objectives. Inadequacies should signal a second iteration of Diagnosis, Planning and Action on specific problems. According to Kolb and Frohman (1970), evaluation is useful for evaluating the change against task sub-goals which will indicate if the change is progressing as desired.

3.2.1.7. Termination

This phase is primarily an assessment of organisation mechanism for maintaining the change. It has to do with the institutionalisation of the new system and ensuring that ownership of the system rests in the hands of users (Kolb & Frohman, 1970).



Stage	Issue
Scouting	Initial evaluations of needs vs. expertise
Entry	Development of collaborative relationship Establishment of commitment levels Responsibilities designated Initial Priority setting Contracting
Diagnosis	Data-gathering Joint definition of organization needs and likely responses
Planning	Formal goal-setting Time-tables set Alternative plans evaluated, Choice made Evaluation criteria determined for later use
Action	Implementation stage Education Feedback Communication
Evaluation	Assessment of effort in terms of previously agreed-upon criteria and new Diagnosis
Termination	End of consulting tela-tionship
Throughout:	Top management support General level of stress

Figure 3.2: Summary of change model and issues

The model presented in Figure 3.2 advocates in general that successful change is based on collaboration among all involved parties, both in assessing needs and executing a plan of action. The most critical stage appears to be entry, during which period those involved in the change explicitly establish commitment levels, assign responsibilities, set priorities, and contract the specifics of the collaborative venture.

In addition to the issues listed with the stages, most practitioners agree that major organisational changes are highly stressful activities and that visible and specific top management support is integral to the success of such an effort. The change model provides a framework within which to organise and interrelate the prediction. Additionally, the model outlines a much more comprehensive set of issues and identifies the most critical for a successful entry and diagnosis. It also provides a means of diagnosing an ongoing effort so that remedial steps can be taken in the event of difficulties.

3.2.2. Internal organisation dynamics

Any change, such as the introduction of a new rhythm, can cause immense disruption and confusion. According to Kolb and Frohman (1970), organisation development theory provides three elements around which to organise issues of organisation impact.

3.2.2.1. Characteristics of the actors involved, both individual and groups

At this level, one is dealing with two types of factors that weigh the most on resistance to change: the individual's personality and previous experience. Based on what the latter is concerned about, Kolb and Frohman (1970) believe that attitudes based on previous experience related to organisation change may have four major causes: lack of trust and misunderstanding of the intentions of change, low tolerance to change, narrow personal interests, and conflicting evaluations of the same process, according to the position within the organisation.

3.2.2.2. The nature of the interactions amongst actors

According to Kolb and Frohman (1970), research in organisations has surfaced principles which pertain to certain types of interactions. As the level of interdependence and need for coordination among sub-units in an organisation increases, so does the potential and likelihood of conflict.

3.2.2.3. The content of the interaction

Organisational development theory focuses on four basic concepts: the process of change, characteristics of actors, nature of interactions among actors, and substance of these interactions. Organisational development draws attention to the distinction between a process of change and impacts on organisation dynamics. Kolb and Frohman (1970) note that within the change model, specific attention is focused on the collaborative nature of the effort, the need to establish priorities, the need for feedback, and the need for evaluative mechanisms.

3.3. Conclusion

The theoretical framework of this study was discussed in this chapter. The concept of organisational development was defined and expounded on.

The chapter that follows will focus on the research design and research methodology used in the study.

Chapter 4: Research design and methodology

4.1. Introduction

The foregoing chapter discussed the theoretical framework of the study. This chapter will consider the research design and methodology employed in this study. The section that follows sets out the process followed in this study.

4.2. Research design

Parahoo (1997) describes a research design as a plan that describes how, when and where data is to be collected and analysed. Polit, Beck and Hungler (2001) define a research design as "the researcher's overall for answering the research question or testing the research hypothesis". Burns and Grove (2003), on the other hand, define a research design as a plan for leading a study with maximum control over factors that may interfere with the validity of the findings.

Mouton (1996) adds to the previous research design which serves to "plan, structure and execute" the research in order to exploit the "validity of the findings". It gives direction from the underlying philosophical assumptions for the research design and data collection. Yin (2003) further adds that a research design is an action plan for getting from '*X'* to '*Y'*, where 'X' may be defined as the initial questions to be answered and 'Y' as the answers.

Kothari (1988) argues that the research design comprises defining and redefining problems; formulating a hypothesis or suggested solution; collecting, organising and evaluating data; making a deduction and reaching conclusions; and finally, carefully testing the conclusions to determine whether they fit the formulated hypothesis. According to Collis and Hussey (2003), there are different types of research designs: exploratory, descriptive, analytical, and predictive. This research used the analytical design and descriptive design.

The reason for choosing the above-mentioned two designs is based on what is stated by Harris (2009). Harris (2009) states that an analysis fulfils the following requirements which ensure the validity of the findings:

- Clearly defined description of objectives that include precise explanations of the variables and outcomes that are being evaluated
- A well-documented validation for identification and selection of the studies
- Assessment and explicit acknowledgement of any researcher bias in the identification and selection of those studies

- Description and evaluation of the degree of heterogeneity among the sample size of studies reviewed
- Justification of the techniques used to evaluate the studies

4.3. Analytical design

Harris (2009) brings out that analytical design is done to systematically evaluate and summarise the results from a number of individual studies, thereby increasing the overall sample size and the ability of the researcher to study effects of interest. According to Collis and Hussey (2003), analytical research explains how or why a decision was taken. Harris (2009) furthermore states that the purpose of the analytical research is not simply to summarise existing knowledge but to develop a new understanding of a research problem using synoptic reasoning.

4.4. Descriptive design

Collis and Hussey (2003) point out that descriptive research is mostly used to analyse, collect and summarise data. According to Burns and Grove (2003), descriptive research design assists to identify problems with the view of making the outcome better.

According to Anastas (1999), descriptive research is defined as a way to obtain information concerning the current status of the phenomena and to describe "what exists" with respect to variables or conditions in a situation. Descriptive research is intended to provide a picture of a position as it naturally happens (Burns & Grove, 2003).

4.5. Research methodology

Research methodology is a strategy of inquiry which moves from the underlying assumptions to the research design and data collection (Myers, 2009). Polit et al. (2001) highlight that research methodology is a technique for structuring, studying, gathering information and analysing the data in order to acquire information.

The method used for this research is the qualitative method. The reason for using the qualitative method is that Morse and Field (2002) state that researchers who use this approach adopt a person-centred holistic and humanistic perspective to understand live human experiences without focusing on the specific concepts. The researcher focuses on experiences from the participants' perspective. Holloway and Wheeler (2002) reveal that the researcher becomes involved and immersed in the study. The researcher's participation in the study adds to the uniqueness of data collection and analysis. According to Burns and

Grove (2003), qualitative research may also be appropriate in understanding human experiences.

4.6. Qualitative research

Qualitative research focuses on the experiences of people as well as stressing the uniqueness of the individual (Parahoo, 1997). Holloway and Wheeler (2002) refer to qualitative research as "a form of social inquiry that focuses on the way people interpret and make sense of their experience and the world in which they live". In contrast, Burns and Grove (2003) describe a qualitative approach as "a systematic subjective approach used to describe life experiences and situations to give them meaning". According to Lincoln and Guba (1985), the qualitative method allows for a design to evolve rather than having a complete design at the beginning of the study because it is difficult if not impossible to predict the outcome of interactions due to the diverse perspectives and value systems of the researcher and participants and their influence on the interpretation of reality and the outcome of the study.

4.7. Population

Parahoo (1997) defines a population as the total number of units from which data can be collected, for example, such as events, individuals, artefacts, or organisations. Burns and Grove (2003) describe a population as all the elements that meet the criteria for inclusion in a study. On the other hand, Polit et al. (2001) define a population as the entire aggregation of cases that meet a specified set of criteria.

The total number in the population selection will include participants who are knowledgeable about the domain to be researched and will include:

- Rand Merchant Bank (RMB) Business Technology Management Board Members
- Business Technology (BT) Staff Members
- Business Units Chief Operation Officers
- Business Units Staff Members

4.8. Size of sample

Holloway and Wheeler (2002) proclaim that a sample size does not impact the importance of the study. They note that there are no rules in determining a sample size in qualitative research. Polit et al. (2001) define a sample as "a proportion of a population". They further add that sampling involves selecting a group of people, events, and behaviours of other

elements with which to conduct a study. Burns and Grove (2003) refer to sampling as a process of selecting a group of people, events, or behaviours with which to conduct a study.

According to Burns and Grove (2003), there are two types of sampling: probability sampling and non-probability sampling. The two types will be discussed further in the next subsection.

4.8.1. Probability sampling

According to Kothari (1988), with probability sampling, every item has an equal chance of being included in the sample. Singh (2006) also mentions simple random sampling as one in which each element of the population has an equal chance of being included in the sample.

4.8.2. Non-probability sampling

According to Parahoo (1997), in non-probability sampling, researchers use their judgment to select the subjects to be included in the study based on their knowledge of the phenomenon. Kothari (1988) defines it as the sampling procedure that does not afford any basis for estimating the probability that each item in the population would have an equal chance of being included in the sample. According to Singh (2006), non-probability sampling is also known as judgment sampling, purposive sampling and deliberate sampling. Judgment sampling involves the selection of a group from the population on the basis of available information (Singh, 2006). Singh (2006) further also states that purposive sampling is selected by random methods which are known for producing well-matched groups.

For the purpose of this research, the chosen type of sampling was non-probability, as items for the sample are chosen by the researcher. Polit et al. (2001) state that purposive sampling is based on the judgment of the researcher regarding the representative sample. This method was appropriate, as it is perceived to be best for qualitative research (Burns & Grove, 2003). The other reason for using this method is that in a non-probability sample, the population under study is predetermined in a non-random fashion on the basis of the researcher's judgment or decision to select a given number of respondents from a particular group (Schiffman, Kanuk & Wisenblit, 2010).

4.9. Data collection methods

Data collection is a means for observations or evidence to provide a definite direction and definite answers to research (Singh, 2006). The chosen instrument to be used for this research will be interviews. According to Parahoo (1997), a research instrument is a tool used to collect data and is designed to measure knowledge, attitude and skills.

4.9.1. Interviews

According to Shneiderman and Plaisant (2005), interviews can be very productive, since the interviewer can pursue specific issues of concern that may lead to focused and constructive suggestions.

4.9.1.1. Advantages of interviews

The advantages of using interviews (Genise, 2002; Shneiderman & Plaisant, 2005) are as follows:

- Direct interaction with staff
- Constructive way of obtaining detailed information
- The ability for the respondent to raise issues which they feel are important

4.9.1.2. Disadvantages of interviews

The disadvantages of using interviews (Kvale, 1996) include:

- Interviews may be time-consuming to conduct and very expensive.
- Interviews can cause challenges with regard to privacy.
- Outside evaluators may be required to assist with the method.

4.9.2. Types of interviews

Kothari (1988) states that there are three fundamental types of research interviews, namely, structured, semi-structured, and unstructured. These three types will be discussed further in the next subsubsection.

4.9.2.1. Unstructured interviews

Kothari (1988) defines unstructured interviews as allowing the interviewer to ask questions and the interviewee to answer them with his/her own belief openly. He further states that it will require both the interviewer and the interviewee to be at ease. Preece, Rogers and Sharp (2002) also bring out that an unstructured interview makes it possible to generate rich data, information and ideas in such conversations, as the level of questioning can be diverse in order to suit the context and that the interviewer can test the interviewee more deeply on specific issues as they bring them up.

4.9.2.2. Structured interviews

Kothari (1988) defines a structured interview as a method where the interviewer uses a set of predetermined questions which are short and clearly worded. According to Preece et al. (2002), structured interviews are most appropriate when the goals of the study are clearly understood and specific questions can be identified. Kothari (1988) further notes that they allow for limited participant responses.

4.9.2.3. Semi-structured interviews

This method of interview uses both structured and unstructured interviews (Singh, 2006). Singh (2006) also states that the method has advantages of both methods of interview. To be consistent with all participants, the interviewer has a set of pre-planned core questions for guidance such that the same areas are covered with each interviewee. As the interview progresses, the interviewee is given an opportunity to elaborate or provide more relevant information if he/she opts to do so. Kothari (1988) highlights that one should use a semi-structured interview approach to appraise the educational design of the model.

The interview type used for the research was the semi-structured method. Kothari (1988) points out that the method allows for elaboration of information that is important to participants, the type of information which may not be thought of by the researcher.

4.10. Methods for analysing the data

Bogdan and Biklen (2003) define qualitative data analysis as "working with the data, organising them, breaking them into manageable units, coding them, synthesising them, and searching for patterns". LeCompte and Schensul (1999) define analysis as the process a researcher uses to reduce data to a story and its interpretation. They further state that data analysis is also a process of reducing enormous amounts of collected data in order to make sense of it.

According to Merriam (1998), several approaches to do data analysis include phenomenological analysis, narrative analysis and ethnographic analysis.

- Ethnographic analysis

Merriam (1998) highlights that ethnographic analysis involves identifying categories related to culture, family and environment.

- Constant comparative

Merriam (1998) brings out that constant comparative assigns a code that reflects conceptual relationships.

- Phenomenological analysis

Merriam (1998) indicated that the phenomenological analysis approach involves laying out one's assumptions about the phenomenon being studied. She also states that many ideas within the field are embedded with qualitative inquiry.

The methods used for the research are ethnographic analysis and phenomenological analysis approaches to analyse the collected data. The reason for using them is that Creswell (2012) notes that phenomenological interviewing allows an explicit focus on the researcher's experiences combined with those of the interviewees.

4.11. Data integrity process

All participants were given a letter requesting permission to carry out the study. An approval letter authorised the researcher to proceed with the study. All information collected was secured and disposed of in accordance with recommendations of the ethical committee.

Creswell (2012) suggests that the trustworthiness of qualitative research can be established by using four strategies: credibility, transferability, dependability, and confirmability. Lincoln and Guba (1985) state that many qualitative researchers agree that data trustworthiness collected from interviews is evidenced by the four strategies. These four strategies were used in the research and will also be discussed further in the next subsection.

4.11.1. Dependability

Polit et al. (2001) define dependability as when the same research is conducted twice, the same results will be obtained if the same study is conducted again. Evidence would be required to be gathered and supported if similar findings are obtained. Merriam (1998) refers to dependability as when the research can be redone and the same results generated.

4.11.2. Credibility

Polit et al. (2001) refer to credibility as being information which is accurate, believable and truthful. In making sure that data and the conclusion reached are credible, all interview participants will be given the opportunity to take part in data collection by means of sending meeting invites prior to the interview; this will ensure that all the participants are well prepared and free to provide the research with the required data. Lincoln and Guba (1985) highlight some credibility research methods which will be used including the use of engagement; use of different methods of data collection that includes interviews, observations, and field notes; and a clear written description of how the study will be conducted.

4.11.3. Transferability

Creswell (2012) defines transferability as a way to determine the extent to which findings can be transferred. On the other hand, Lincoln and Guba (1985) refer to transferability as the degree to which the results can be generalised or transferred to other contexts or settings.

4.11.4. Confirmability

The research study procedures will be well documented to allow other reviews to use. Shenton (2004) refers to the concepts of confirmability as the qualitative comparable concern to objectivity.

4.12. Research ethics

4.12.1. Informed consent

The research objective was explained to all participants, and permission to conduct the study was received from RMB. The participants were given the choice of taking part in the interviews and observations. Also, confidentiality of records will be maintained and not exposed to any third parties.

4.12.2. Right to privacy and confidentiality

All confidential communication with participants, for example, personnel records, will be protected. Moreover, information collected during the interviews and observations will not be made available to anyone who is not directly involved in the study.

4.13. Conclusion

This chapter discussed the research methodology and design used in this study. For example, the qualitative method was deemed appropriate for this study. If was further highlighted that semi-structured interviews would be adopted for the study.

The next chapter presents the research results and interprets the research findings in light of previous research and information discussed in the literature review.

Chapter 5: Research results and findings

5.1. Introduction

This research is based on Rand Merchant Bank (RMB), which is a division of FirstRand Bank Limited, one of the major investment banks in South Africa. RMB is a leading African corporate and investment bank and one of the largest financial service groups in Africa (RMB, 2016). RMB offers clients innovative trading, corporate banking, investing solutions, and funding.

Before 2012, each business unit had its own IT delivery teams, which meant that each business unit defined its own technology path. On review of the issues facing Business Technology (BT), there was a need to centralise the structure of BT. The previous chapter dealt with the research methodology and design employed in this study. This chapter presents the analysis, interpretation and discussion of the results of the study.

5.2. Research results

The results in this study have been derived from interviews. In total, 45 people were requested to be interviewed, and out of the 45 people, 30 accepted via email to be interviewed, thus giving a response rate of 67%. To gain background information about the respondents, the interviewees were asked about their demographics, numbers of years of services, and management level.

5.3. Theme 1: Demographic information

5.3.1. Demographics

The respondents were asked to state their gender. A larger proportion of males were interviewed compared to their female counterparts. The results are presented in Figure 5.1.

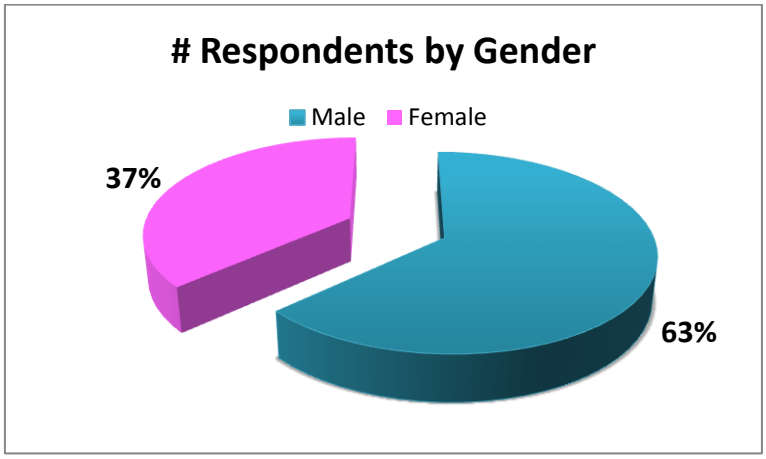


Figure 4.1: Distribution of respondents by gender

Out of the 30 people interviewed, the results in Figure 5.1 indicate that 63% of the respondents were male, and 37% were female.

5.3.2. Number of year(s) as an RMB employee

The respondents were requested to specify the number of years they had been employed by RMB. The results are highlighted in Figure 5.2. The figure shows that on average, the respondents had been with the company for 7.5 years.

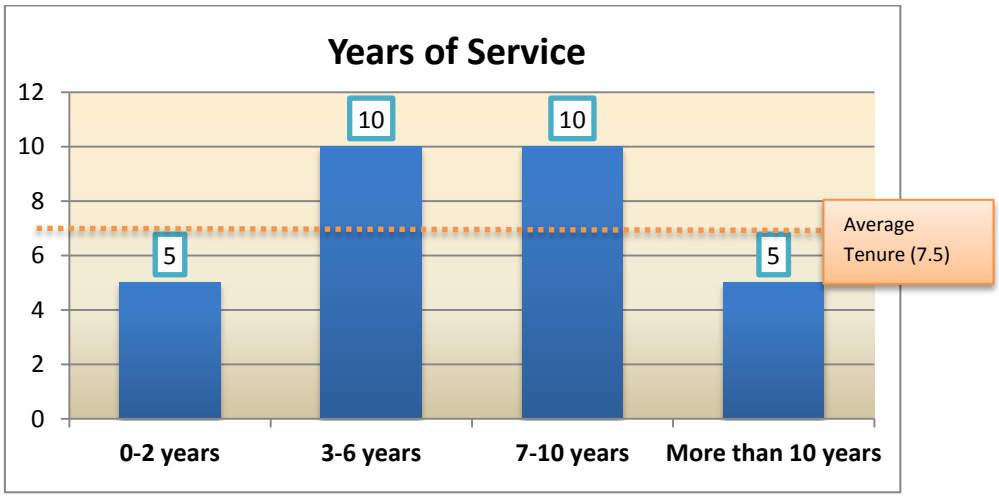


Figure 5.2: Years of service

5.3.3. Business unit area

The respondents were requested to indicate their business unit working area within the organisation. The results are revealed in Figure 5.3.

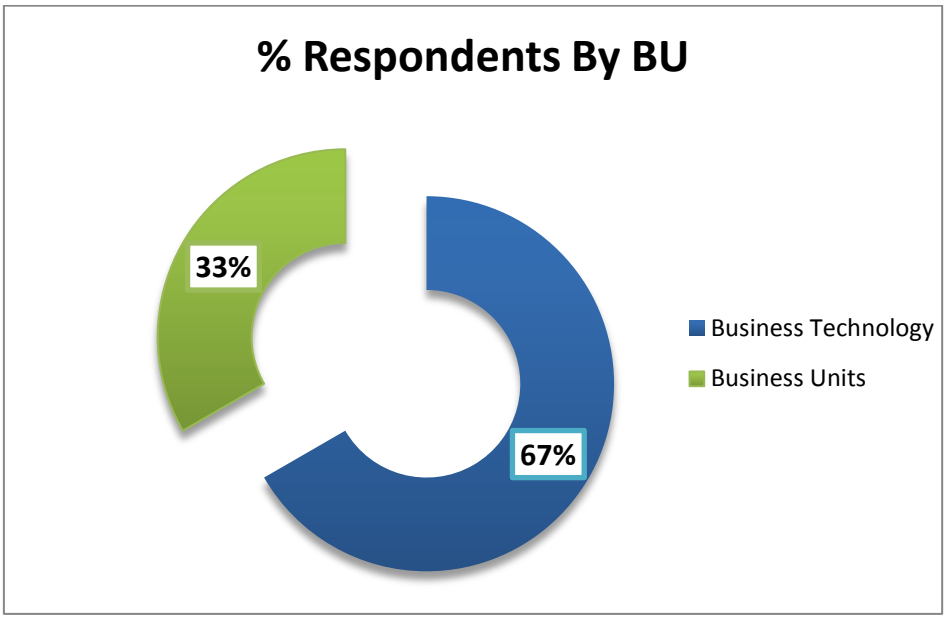


Figure 5.3: Respondents by business unit

Figure 5.3 shows that more than 67% of the respondents were from Business Technology (BT), and 33% came from the Business Units (BU).

5.3.4. Job title

The respondents were requested to indicate their job titles in the organisation. The results are indicated in Figure 5.4.

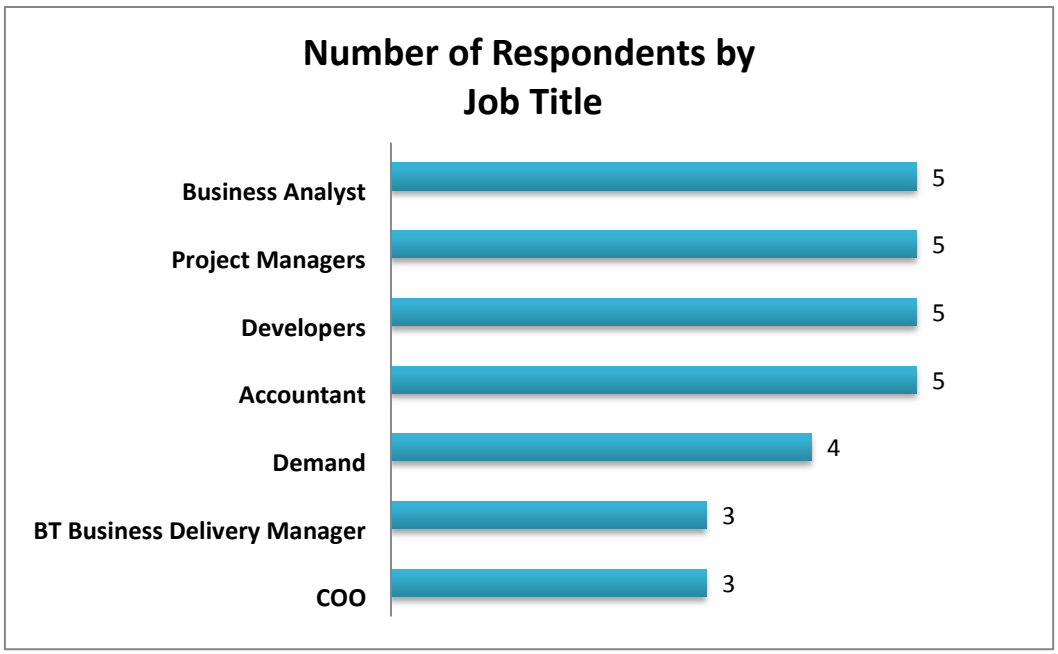


Figure 5.4: Job title

According to Figure 5.4, almost all the role types participated in the interview process.

5.3.5. Management level

The respondents were requested to indicate their management level in the organisation. The results are depicted in Figure 5.5.

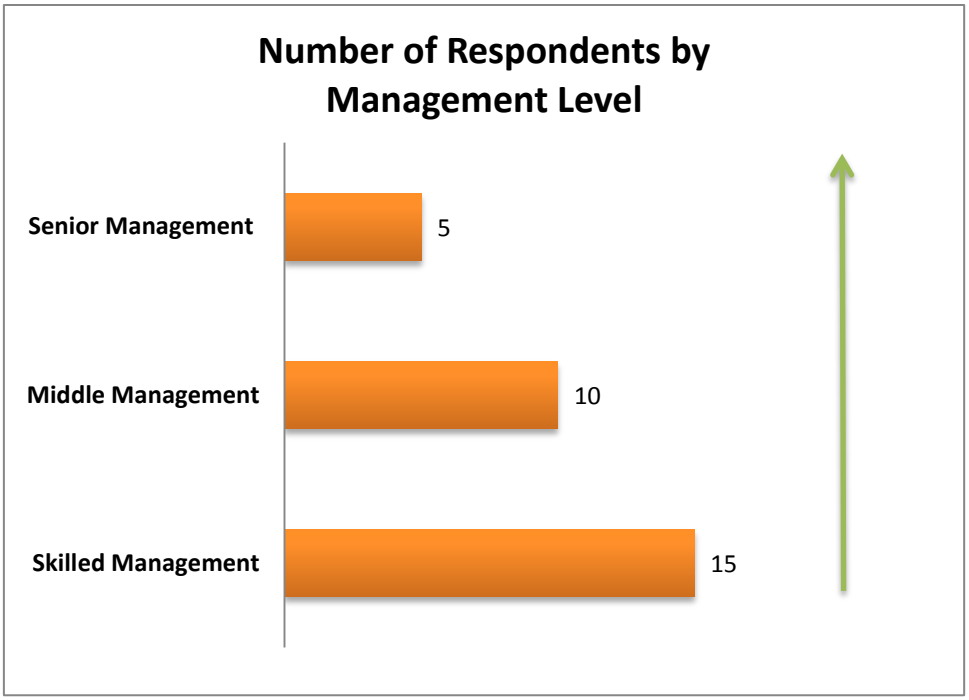


Figure 5.5: Management level

The majority of respondents were members of the skilled management of the organisation, as indicated in Figure 5.5.

5.3.6. Results conclusion

More than 50% of respondents have been with RMB for more than seven years and thus have experience of the old BT decentralised model. On the other side of the scale, almost a quarter of them have been with the company for more than three years. Although an equal split of male and female respondents was envisaged, the split of 67% representing male and 33% being female did not impact on the outcome of the research. Fifty per cent of the respondents had been employees of RMB for seven years or more, which may have influenced the outcome of the research.

5.4. Research findings

The study focused on the manner in which the process of change was managed and identifying the weakness within the centralised structure that is impacting the strategy to further improve information technology (IT) service within RMB. As mentioned in Chapter 4, interviews were conducted with senior management, middle management and skilled management across RMB, and the interviews were confidential.

A detailed description of the organisation and the method for collecting data is contained in the full report of this research. The analysis is based on data collected from interviews, and the full details of the questionnaire are contained in Appendix B.

5.5. Theme 2: BT centralisation

The construction of the questionnaire as well as the description of the population is described in Section 5.3. For the responses to the interview questions, the Nvivo10 – a data analysis tool – was used for the analysis of the collected data in this study. The tool assisted with coding and connection of themes.

5.5.1. BT centralisation: Questions and answers

The respondents were requested to indicate if the current BT structure is currently working for them. More than 50% of the respondents bring out that the current BT structure is not working for them, while 40% indicate that it is working for them. The results are shown in Figure 5.6.

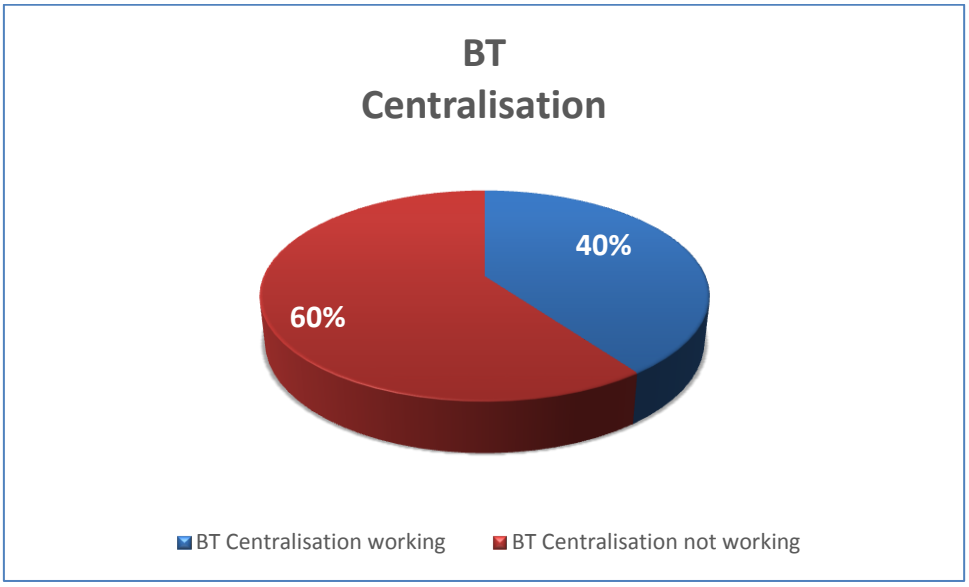


Figure 5.6: BT centralisation

Question 1: What from your perspective was the objective of BT centralisation?

The most common answers given were as follows:

- BT centralisation was about having the ability to utilise resources more effectively, realignment of architecture, cost elimination, and standardise processes across different business units.
- Some said it was about having similar skilled people pooled so that one will be able to get the economy of scale advantage and to develop deeper skill and to improve overall BT capability.
- To have a better balance between business and IT specialisation focus.
- To allow for IT governance and enable BT to deliver value to the business as a unit.

Question 2: Have you ever worked in a BT centralised structure? If yes, how has the experience played out?

The most common answers given were as follows:

- The alignment of BT architecture got much better, and process alignment also improved.
- From the business perspective, the results are mixed: centralised structure seems to be working fine for certain BUs, while other business unit areas feel that there are issues that still need to be analysed, as the centralised BT structure is not working for their business.
- Economies of scale are achieved from infrastructure support perspective, and application support is much better.
- BT seems to have built its own brand; some people are now proud to work in BT, as BT networking has improved. The BT management is no longer silo thinking.
- In some areas, the service to business has deteriorated, caused mainly by prioritisation issues.
- Capacity management is not in place.

Question 3: Have you ever worked in a BT decentralised structure? If yes, how has the experience played out?

The most common answers given were as follows:

- BT has a sense of connectivity to the business and more understanding of the business strategy. There is also more accountability to business for delivery.
- From the business side, there seemed to be better architectural standards, frameworks and better governance than in a centralised structure.

Question 4: What BT structure worked best where you worked before?

The respondents were requested to indicate what BT structure based on their experience worked best. The results are presented in Figure 5.7.

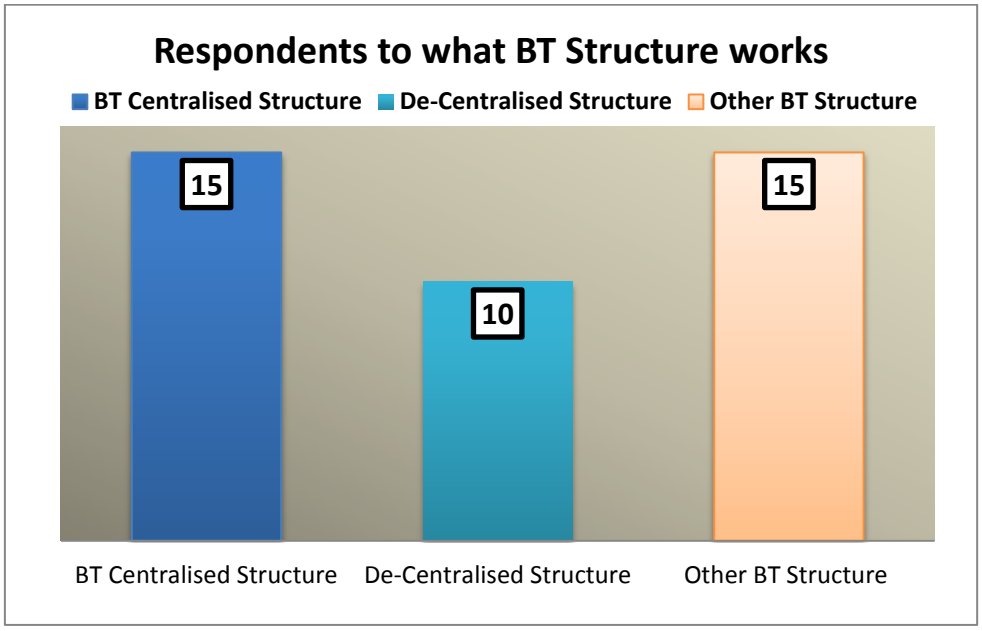


Figure 5.7: BT structure

5.6. Theme 3: Current technology environment

The construction of the questionnaire as well as the description of the population was described in Section 5.3. For the responses to the interview questions, the Nvivo10 – a data analysis tool – was used for the analysis of the collected data in this study. The tool assisted with coding and connection of themes.

5.6.1. Demand and supply model: Questions and answers

The respondents were requested to indicate if the demand and supply model currently operational in RMB BT is working for them. More than 50% of the respondents indicate the current demand and supply model is not working for them, whereas 40% highlight that it is working for them. The results are shown in Figure 5.8.

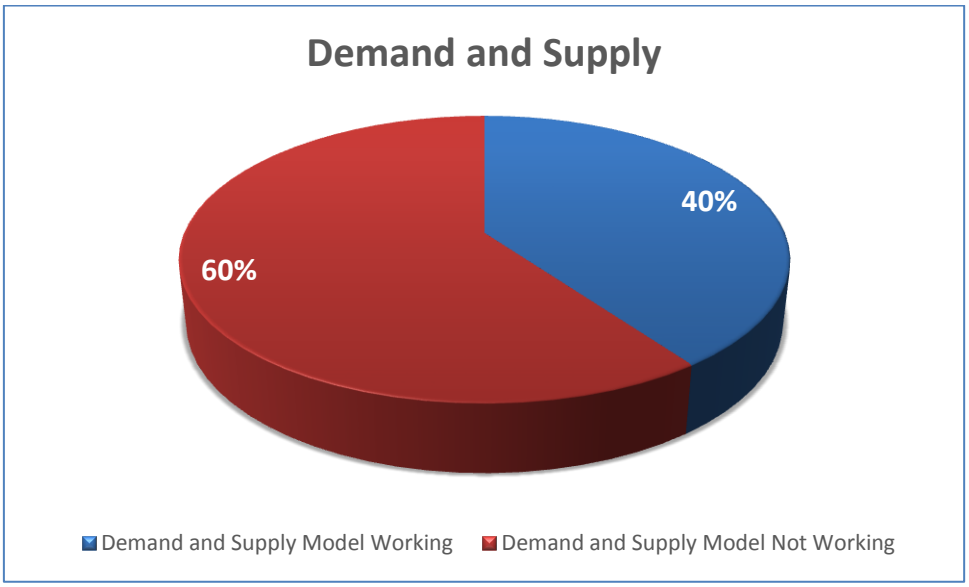


Figure 5.8: Demand and supply model

Question 1: What do you think is the purpose of demand?

The most common answers given included the following:

- Demand needs to understand the business strategy and have a clear understanding of the business and architecture.
- Demand needs to understand what is coming in the pipeline and pair a delivery team behind it as in BT in this case.
- Demand is supposed to do the initial analysis of the business requirements to determine the value-adds and also to prioritise the work on behalf of business.

Question 2: What key issues currently exist around the demand management process in RMB?

The most common answers given were as follows:

- No comprehensive and effective demand management processes are in place.

- Ineffective change management process in place to serve as channels for demand management.
- Inadequate mechanisms for coordinating pockets of innovation into collective expressions of demand.
- Misalignment between project work change and production work change, which then causes changes to be rejected because they cannot fit into project prioritisation list.
- Having the right people on the demand side.
- There is a gap in communication between demand and business. In certain business areas, the demand office is not even known nor understood. Certain businesses still send their new requirements directly to BT.
- Ineffective and limited prioritisation process. Ineffective sourcing and recording of demand requirements.

Question 3: What is the impact of the key issues which exist in the demand management process in RMB?

These were the most common answers given:

- The flow of work is impacted, especially when one addresses change initiatives and run the bank's initiatives. There are more bottlenecks around and too many stationary points – no seamless handover points.
- Cost is not considered from the demand side, which includes capacity planning.
- Silo approach makes it challenging to see the big picture.
- Demand wants to manage the delivery of supply, in this case BT.
- Ineffective demand recording leads to ineffective supply, which creates an expectation gap between users and IT.
- Business feels that they are lagging its competition and falling behind further due to its systems not keeping up.
- Supply side is only as good as its understanding and management of demand.

Question 4: What improvements can be made around the demand process in RMB?

The most common answers given were as follows:

- Clearly defined mandate and handover points.
- Accountability of handover points should be clearly defined, to address issues of knowing who is accountable for what.
- A sense of teamwork needs to improve.
- Creating clear roles and responsibilities around demand management.
- Making provision for innovation and architecture to contribute to demand management.
- Effectively combine demand management mechanisms in programme management office and relationship management process to formalise and standardise demand management.
- Rules of engagement should be clearly defined.
- The new refined process of planning has made some improvements. With the new process, planning is done a month in advance. Demand sits in the planning sessions together with BT, and this creates visibility of work as well as alignment across the entire bank.

Question 5: What key issues currently exist around the supply management process in RMB?

The most common answers given included the following:

- More understanding from the business explaining to them the agile methodology used by the supply side.
- From a business perspective, it seems supply does not recruit the right resources to service the business. Disempowered knowledge workers in BT.
- Clearly understanding from the business side how run/change initiatives are managed. Some resources are doing production support and are also on the change initiatives.
- Currently, there are business analysts on the supply side, whereas a true business analyst should be from the business. One should have system analysts on the supply side. Misalignment and definition of these roles.

- Change buckets are ineffective, amounting to planned, unplanned and also much-abused emergency change categories.
- No formal change prioritisation process and change management not effectively used.
- Delivery is slow from the supply side. Even though there is delivery at the end of the day, delivery is not as quick as a business would expect.

Question 6: What is the impact on key issues which exist around the supply management process in RMB?

The most common answers given were as follows:

- The lack of user discipline and not adhering to change management process; no consequence management for not following the process.
- Cumbersome change management process does not promote acceptable throughput, so users bypass it.
- Ineffective change buckets bring about ineffective change advisory board (CAB).
- Absence of formal prioritisation further impacts throughput.

Question 7: What improvement can be made around the supply management processes in RMB?

These were the most common answers given:

- Rotation of resources between change initiatives and run initiatives must be considered.
- The supply side must start to understand the business side, so that they are able to provide advice with future platform the business requirements.
- Enhanced governance and architectural.
- Assign clear responsibilities and accountabilities, and define consequences for non-adherence to change principles.
- Interact closely with a formal change prioritisation process which is separate from the project prioritisation process.

- Create change capacity, thus making provision for at least changes, small enhancements and emergency changes.
- The RMB environment is highly integrated. This tends to slow down delivery, as there are multiple teams that work on one solution. These teams have different capacity issues.

Question 8: What is currently working around supply processes in RMB?

The most common answers given were as follows:

- Co-location of supply resource into the business works well for certain business units.
- The relationship between business and supply is working much better, as there is better collaboration and communication, which is improving in the supply teams.

5.6.2. Prioritisation: Questions and answers

The respondents were requested to indicate if the current prioritisation process is working for them. More than 50% of the respondents mention that the current BT prioritisation is not working for them, while 40% say it is working for them. The results are highlighted in Figure 5.9.

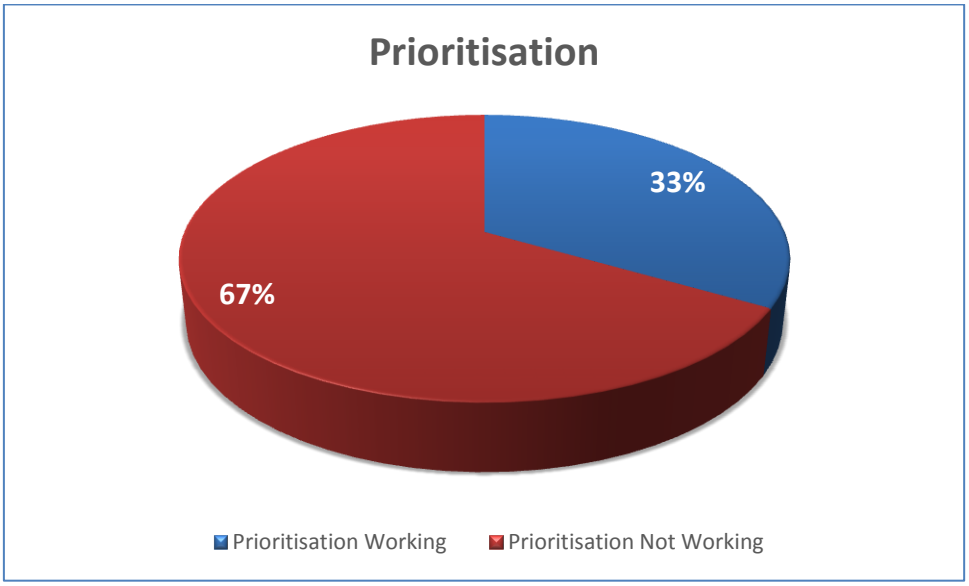


Figure 5.9: Prioritisation

Question 1: What is the purpose of prioritisation, from your perspective?

This was the most common answer given:

- Prioritisation is meant to create alignment and visibility on what the teams are working on. It is meant to set expectations to business, so that they know what is being worked on at all times.

Question 2: What key issues currently exist around work prioritisation in RMB?

The most common answers given were as follows:

- Process not transparent and regarded by many as “clandestine”.
- Prioritisation process perceived to be exclusive rather than inclusive.
- Current prioritisation process seen as a one size fits all, lack of distinction between projects and production changes.
- Prioritisation first considers resource availability, then demand rather than prioritisation demand and then considering feasibility.
- Not having a clear prioritised list. For example, one would have something prioritised and named “data management” which can mean a variety of things to different people. More details needed.
- Collection of the entire business requirement is currently not working. Business expectation and support area were working in isolation.
- No measurements are in place for projects, which makes it a challenge to quantify a project.
- Sequence of project is not in place, so one is unable to measure and also allocate the right resources for a project.

Question 3: What is the impact of key issues which exist around prioritisation in a BT centralised structure?

The following were the most common answers that were given:

- The lack of planning, especially long-term plans, looking at the next two to three years.

- Impossible to prioritise demand if the process does not encourage and recognise participation by all stakeholders.
- Imbalance of resource allocation between project work and production support work.
- Prioritisation rendered ineffective, whereby business does not see the need to raise their requirements, which leads to timelines getting missed.

Question 4: What improvement can be made to make prioritisation more efficient in a centralised structure?

The most common answers given were as follows:

- Support area prioritisation for business must stop. Business drives prioritisation, which must include all the business areas, and they need to be ranked.
- More governance around prioritisation by the business area.
- Better communication of what was approved by the prioritisation committee.
- Transparency of project prioritisation, with inputs from risk, finance, and operations.
- Assigning ownership of list and obtaining commitment from all stakeholders to participate in prioritisation and to respect the list.
- Recognising project work and production environment as complementary, not making prioritisation only relevant to the top few projects.
- Aligning resourcing to priority rather than setting priority according to resource availability.
- Making the priority list inclusive even of needs that could be addressed in the long term.

Question 5: What is currently working in prioritisation processing in RMB?

These were the most common answers given:

- More information in terms of top down. More clarification in terms of why the item was prioritised.

- The creation of the Top 10 prioritised project across the bank has made things run better. A sense of control of resource makes it much better for an ability to deliver against the strategy.

5.6.3. Project delivery (change the bank) and production support (run the bank): Questions and answers

The respondents were requested to indicate if the current project delivery and production support are currently working for them. More than 50% of the respondents indicate that the current BT structure is not working for them, whereas 40% of them highlight that it is working for them. The results are revealed in Figure 5.10.

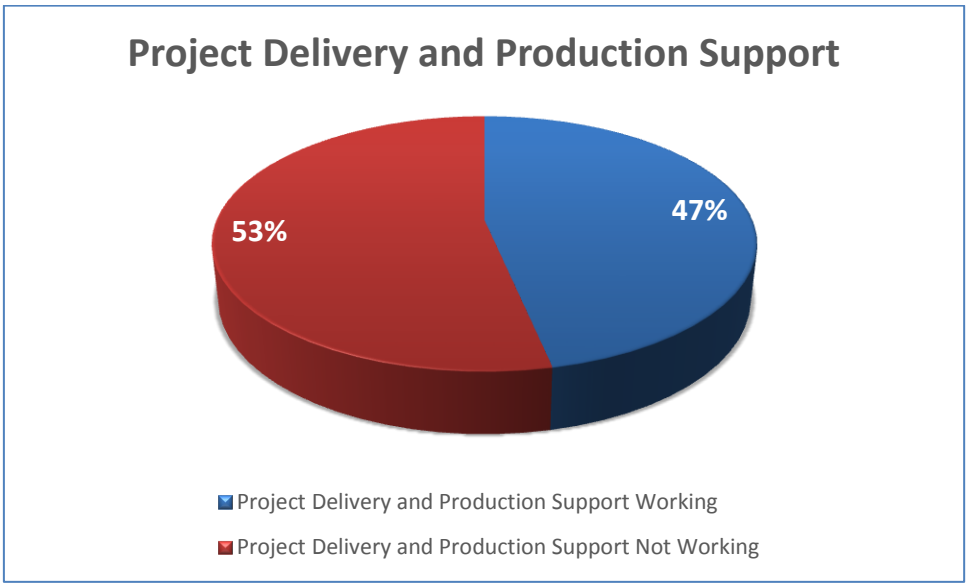


Figure 5.10: Project delivery and production support

Question 1: What key issues currently exist around project delivery management?

The answers given that were the most common included:

- Currently not working for business, caused by inefficient project management.
- No defined role for both project and production support.
- No alignment between the project manager and the demand manager.
- Currently, BT is not meeting the business demand.
- Preference for gifted (internal) amateurs rather than project managers.

- A different rule applies to larger projects vs. other projects.
- Little consistency in approach to project management.

Question 2: What is the impact of key issues which exist around project delivery management?

The answers that follow indicate the most common answers given:

- Project budget overruns, not meeting deadlines and user's expectation not being met.
- RMB Project Management Office (PMO) does not have sight of all BT IT projects.
- Ineffective prioritisation creates expectation gap between users and IT, and adversely impacts project throughput.
- Not having the right project manager (PM) brings more risk to the project delivery and inaccurate PM costs.
- Many of the PMs are inefficient, and this leads to not getting the actual work done.

Question 3: What improvement can be made around project delivery to make it more effective and efficient?

The most common answers given were as follows:

- Having more strict delivery of project-on-time attitudes.
- Having more gates over the lifecycle of a project. This would highlight issues earlier in delivery.
- Having rotation of resources between production support and project delivery. This will lead to more responsible delivery of solution to business, as the resources will need to support their delivery at a later date.
- Project delivery must not only deliver new functionality but must simplify and optimise and deliver sustainable solutions.
- Adoption of consistent project and programme methodology making provision for sound governance across the whole BT.

- Creation of an integrated RMB PMO and central BT demand management process.

Question 4: What is currently working around project delivery in RMB?

The following were the most common answers given:

- Strong PMs in some areas make project delivery effective.
- When there are proper coordination and a common understanding of what the requirements are and why the teams pull together and deliver value to business.

Question 5: What key issues currently exist around production support?

These were the most common answers given by the respondents:

- Roles clarification.
- Matching BT skills and business skills.

Question 6: What is the impact on the key issues which exist around production support?

The respondents provided common answers, which are as follows:

- There is currently more activity on “run the bank” and very little activity on “change the bank”. This is caused by having the resources doing run and change the bank. What should happen is to have two teams: one that does “run the bank” and another that does “change the bank”.
- BT is becoming silo and becoming out of touch with business. BT is not interacting with business and thus losing touch.

Question 7: What improvement can be made around production support to make it more effective and efficient?

The most common answer given was as follows:

- Having a rotational system whereby resources switch between project and production on an annual basis.

5.7. Conclusion

The findings from the interviews show that there are a number of fundamental unresolved structural issues and gaps that impact BT performance and delivery to the business. This chapter has thus presented the analysis, interpretation and discussion of the results of the study.

The next chapter provides a conclusion as well as recommendations on how to close the gaps.

Chapter 6: Conclusion and recommendations

6.1. Introduction

The penultimate chapter presented the analysis, interpretation and discussion of the results of the study. In this final chapter, the main findings are recapped as responses to the propositions presented in previous chapters. This chapter provides the recommendations from literature and makes suggestions for future research. The research questions posed in Chapter 1 are also dealt with in this chapter.

The objective of this research is to evaluate the impact of centralising the IT business unit on the delivery of financial services and close any gaps which are impacting the strategy to further improve the information technology services within Rand Merchant Bank (RMB).

6.2. Centralising IT structure

The current macroeconomic environment does not ensure that excellent top line performance will alone translate into good financial results (Chen et al., 2010). On the other hand, Desemo (2010) refers to centralisation as the allocation of all information technology (IT) resources to one particular business unit that provides IT services to the whole organisation and is characterised by control, efficiency and economy. As an organisation's IT investment goals evolve from improving operational efficiency to enhancing strategic growth, it is expected that leaders play not only the traditional supply-side leadership role focusing on exploiting existing IT competencies to support known business needs (Chen et al., 2010).

The study showed that a sense of understanding what the objective of centralising Business Technology (BT) is necessary, but 60% of the respondents thought that the BT centralisation structure seems not to be working in RMB (Figure 5.6). From a supply side, it is inefficient primarily because of the disempowered knowledge workings. From a demand-side perspective, centralisation of BT was viewed as ineffective, and there is a perceived widening of the gap between BT understanding of business fundamentals. To address this challenge and position BT as a strategic decision-making partner to the business, it is suggested that the following changes to the current business engagement model be considered:

- The current engagement principles seem to suggest a lack of collaboration and partnership between BT and the business. Structural changes required to separate the engagement related to run/operational activities versus change activities are recommended. The Run and Change portfolios require different focuses with clear roles within business and BT. The business side which reacted most negatively to the centralised BT structure was Global Market (GM), with its main concern being system failures. This suggests a heightened focus on the run aspect of BT, especially

considering the significant dependency of GM on the 'uptime' of these trading systems.

- Inadequate group-wide architecture has resulted in a myriad of different systems in RMB that perform similar functions that are not leveraged across different business units and has created significant inefficiencies. It is suggested that the architecture be reviewed with a view to simplifying and enabling reuse of system and function across the various business areas.

- Creating an effective across-business unit (BU) IT-business interface should be considered; this will provide transparency to business around group-wide priorities and challenges as well as the expected road map for delivery.

- A fully centralised BT structure does not seem to address the challenges of providing specialised BU-specific demands. Given this, a model that enables closer alignment to BU and better flow of delivery should be considered.

- Centralisation should be considered for those aspects of IT that are core or common functions of the whole organisation.

6.3. Operating model in centralised IT structure

In today's environment, IT constantly provides new capabilities that fundamentally change business processes and transform organisations both externally and internally. Organisations that invest in IT expect to obtain not only operational efficiency but also transformative innovations that change the organisation's market position. It is expected that the IT function not only provide efficient and reliable technical support but also take a leading role in exploring new IT-enabled business innovation (Chen et al., 2010). If one uses the demand and supply model as the chosen operating model in a centralised structure, then according to Rau and Mark (2006), the demand and supply model is where the IT staff is divided into two major groups. The split between demand and supply is being driven by a desire to get better economics or responsiveness out of resources that are shared (Mark, 2007).

According to Rau (2007), the role of demand in the demand and supply model is to decide which project takes priority and to act as a business expert. It also provides the interface between business users and internal and external IT suppliers. According to Chen et al. (2010), the demand side leads the organisation to explore new IT-driven business opportunities that should lead to organisational innovations and business growth. The traditional IT services in the supply side include the technical design, building, testing and deployment of applications. It exploits existing IT resources and competencies to improve the efficiency of the organisation's operations (Chen et al., 2010).

The study showed that more than 60% of the respondents said the current demand and supply model is not working for them, while 40% indicated the demand and supply model is working in RMB (Figure 5.8). To address this challenge, it is suggested that the following be considered:

- The current challenge in RMB seems to suggest that those on the demand side are 'middlemen' and are not necessarily able or equipped to respond to the demands of business owners. Given that IT is a strategic driver, demand should own business process, should understand the underlying technology as well as the key business drivers. From a demand 'innovation' perspective, the demand function is disempowered in many ways as a result of the complexities of the current architecture and the inability to introduce a new product/function. Demand management organisational structure should be driven in a manner that future architectural requirements are channelled appropriately into the bank-wide business and solutions architecture. Lack of engagement and not having the right resource on the demand side and supply side are negatively impacting on the effectiveness of the model. The rules of engagement should be clearly defined and both demand and supply should respect the role of the other to enable successful delivery.

- Demand should review the BU-specific project pipeline and identify prioritisation to optimise the value-add to be gained across the portfolio.

- The supply side must start to obtain an in-depth understanding of the business capabilities that are required. This is so as to be able to provide value-adding support to business. Supply also needs to start thinking of the skill set that will be required to service the business in the future.

6.4. Challenges on delivery on a centralised IT structure

6.4.1. Prioritisation

The study showed that more than 67% of the respondents revealed that the current prioritisation is not working for some business areas, whereas 33% pointed out that the prioritisation is working in RMB (Figure 5.9). To address this challenge, it is suggested that the following be considered:

- Business, in collaboration with BT, should drive across business prioritisation, and it should include all business areas and rank work across the organisation with a clear understanding of the skills/people required in both BU and BT to deliver.

- As indicated, an RMB change capability should be created whereby the focus is on enabling the delivery of identified and prioritised projects that are aligned to an agreed road map.

6.4.2. Project delivery and production support

The study showed that more than 53% of the respondents brought out that the current project delivery and production support is not working for some business areas, and 47% opined that the project delivery and production support is working in RMB (Figure 5.10). It is recommended that the following be considered, to address this challenge:

- The creation of two teams should be considered. The one team would be for 'run the bank' and the second would be for 'change the bank'. The current model is inefficient and costly, as there is a high degree of context switching with people working in both projects and production simultaneously. This has resulted in a lack of change delivery as well as a perceived lack of run-excellence in most areas.

- Building a focused change capability including processes for project management, project funding, software/application development and project tracking including value delivery should be created. The specific role and accountability of the project manager, especially in relation to BT and business management, should be a focus area.

- Specific focus and attention need to be given to securing the right mix of skills and competencies to facilitate both the run and change functions. This should include the process of ensuring that the projects are delivered and can be supported sustainably. Consideration could be given in some cases to a rotational system whereby a specific person does support and then at a later stage switches to do project work. Having rotation of resources between production support and project delivery resources will lead to more efficient delivery of solution to business, knowing very well that one will have to support it later.

- The lack of users' discipline and not adhering to change management process needs to change. Users need to understand the consequence of non-conformance.

6.5. Limitation of the research

Similar to most research studies, this study is not without limitations. In conducting this research, the sampling method was non-probabilistic; therefore, the respondents used in this study might not necessarily be representative of the population.

The following limitations were noted:

- Only RMB employees were targeted in gathering the data for this study, and this could have bias inclination and thus affect the data.

6.6. Suggestions for further research

The following areas of future research that may complement the findings in this study are suggested:

- A similar study should be undertaken with a sample that includes other stakeholders such as customers, suppliers and the general public.
- A similar study should be undertaken with focus on other organisations and other industries.

6.7. Conclusion

In conclusion, the evaluation of the impact of centralisation of the information technology on the delivery of IT services to the business. From the literature review and the findings, it is evident that there was an underestimation of the impact on people, process and system simplification. The study also shows that no impact assessment was conducted, as time to get this done was rushed. It is also noted from this study that when one pursues IT centralisation in a strategic vacuum of only cost savings target, better architectural alignment, enhanced IT capability, and better IT career paths for staff, one also needs to understand the business goals that they need to support to be able to select the most appropriate level of centralisation.

The study also showed underestimation of the effort required to rebuild trust lost to poor initial service delivery to business. The business users seem to have been forgotten, as their ability to absorb change was a key factor in determining the process to be successful. These silent resistors were also overlooked, and they seem to have also derailed the centralisation

efforts through non-compliance. Hard decisions must be made and change to the current constraints; otherwise, the current constraints will have a snowball effect.

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Appendices

Appendix A: Cover Letter

Name: John Siti

Address:

Dear Colleague

As part of the requirements for a master's degree in Management of Technology and Innovation, I am conducting a study on "Centralising Information Technology for the Delivery of Financial Investment Services within RMB".

The research is intended to evaluate the impact of centralising the IT business unit on the delivery of financial services and investigates key critical factors that contribute to a successful IT centralised model. The time and effort taken for me to interview you are much appreciated and will make a significant contribution both to my research and to RMB.

Thus, you are kindly requested to spare some of your precious time, and please rest assured of the anonymity and confidentiality of your interview with me.

Thank you once again for your time and input.

Yours Sincerely,

John Siti

Appendix B: Questionnaire and Answers

Evaluating the impact of centralising the information technology business unit on the delivery of financial services and investigates key critical factors that contribute to a successful IT centralised model.

Part 1: Demographic Information

1. Gender

Male	
Female	

2. Current Job Title

3. Work Level

Senior Management	
Middle Management	
Skilled Management	

4. How long have you been employed at RMB?

0-2 years	
3-6 years	
7-10 years	
More than 10 years	

5. Business Unit Area?

Part 2: Centralised (BT) vs. Decentralised (BT)

1. Is BT centralisation working? (Y/N)

2. What, from your perspective, was the objective of BT centralisation?

3. Have you ever worked in a BT centralised structure? (Y/N)

4. If yes, how has the BT experience played out?

5. Have you ever worked in a BT decentralised structure? (Y/N)

6. If yes, how has the BT experience played out?

Part 3: Current Technology Environment

3.1. Demand and Supply

1. Is demand and supply model working? (Y/N)

2. What do you think is the purpose of demand?

3. What key issues currently exist around the demand management process in RMB?

4. What is being impacted from key issues which exist in the demand management process in RMB?

5. What improvements can be made around the demand process in RMB?

6. What is currently working in the demand processes in RMB?

7. What is the purpose of the supply management process in RMB?

8. What key issues currently exist around the supply management process in RMB?

9. What is the impact on key issues which exist around the supply management process in RMB?

10. What improvement can be made around the supply management processes in RMB?

11. What is currently working around supply processes in RMB?

3.2. Prioritisation

1. Is prioritisation process working? (Y/N)

2. What is the purpose of prioritisation, from your perspective?

3. What key issues currently exist around work prioritisation in RMB?

4. What is the impact of key issues which exist around prioritisation in a BT centralised structure?

5. What improvement can be made to make prioritisation more efficient in a centralised structure?

6. What is currently working in prioritisation processing in RMB?

3.3. Project Delivery

1. What do you think is the purpose of project delivery?

2. What key issues currently exist around project delivery management?

3. What is the impact on the key issues which exist around project delivery?

4. What improvement can be made around project delivery to make it more effective and efficient?

5. What is currently working around project delivery in RMB?

3.4. Production Support

1. What do you think is the purpose of production support?

2. What key issues currently exist around production support?

3. What is the impact on the key issues which exist around production support?

4. What improvement can be made around production support to make it more effective and efficient?

5. What is currently working around production support in RMB?

Appendix C: Presentation

RAND MERCHANT BANK
A division of FirstRand Bank Limited

Research Summary

Centralising Information Technology for the delivery of Financial Investment Services: **An RMB Impact Study**

May 2016

An Authorised Financial Services Provider

Contents

Research Context Background

This research is based on Rand Merchant Bank (RMB) which is a division of FirstRand Bank Limited, one of the biggest investment banks in South Africa. Rand Merchant Bank is a leading African Corporate and Investment Bank and one of the largest financial service groups in Africa (RMB, 2016). Rand Merchant Bank offers clients innovative, trading, corporate banking, investing solutions and funding.

The organisation has approximately 260 Information Technology Permanent staff members in the Business Technology (BT) in RMB. Rand Merchant Bank had a highly fragmented systems environment, resulting from a historically decentralised structure of Information Technology.

Prior to 2012, each business unit had its own Information Technology supporting and delivery teams, which meant that each business unit defined its own technology path. On review of the issues facing business technology, it was decided that this model was not suitable for the following reasons; it introduced high levels of complexity, operational risk and substantially reduced the ability to adapt and leverage platforms across the whole of the Rand Merchant Bank businesses. A business strategy was considered to move to a centralised Business Technology model. The driver(s) for moving to a centralized model was to enable the organisation to achieve cost savings, better architectural alignment, enhanced IT capability, better IT career paths for staff and ultimately establish Rand Merchant Bank Information Technology platforms that would provide a competitive advantage for the Bank.

Problem Statement

Organisations of all sizes and across all industries face significant pressure as they grow their business in a competitive and global economy which is constantly re-organising and restructuring in response to economic conditions, an onslaught of new technologies and global trends.

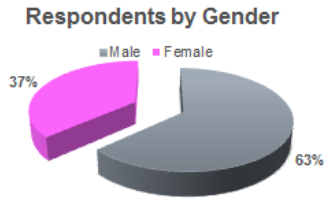
The intention of this research is to explore the impact of a Centralised Business Technology Structure and close any gaps which are impacting the strategy to further improve the information technology services within RMB.

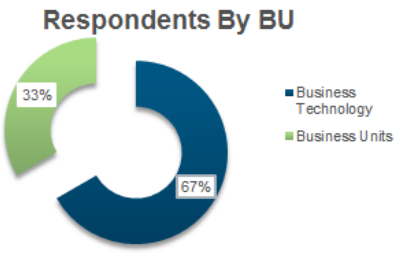
Aim and Objectives of the study

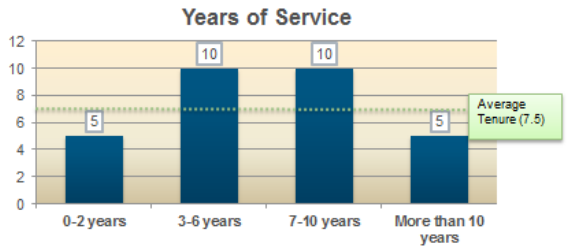
Questions	Objectives
What is BT Centralisation?	To understand what were the real objective and expectations of centralising IT?
What is the impact of centralising IT structure in an organisation?	To investigate the impact of centralising the IT Structure in an organisation. To examine the impact in service delivery when the IT function is centralised in an organisation.
What model was used for Centralisation of IT in RMB?	To find out if the chosen centralisation model was 'best-fit' for BT in RMB?
What is the impact of Centralisation of IT on the following? • Demand and Supply • Prioritisation • Project Delivery • Production Support	To investigate the challenges that impact service delivery when you centralise IT. • Demand and Supply • Prioritisation • Project Delivery • Production Support

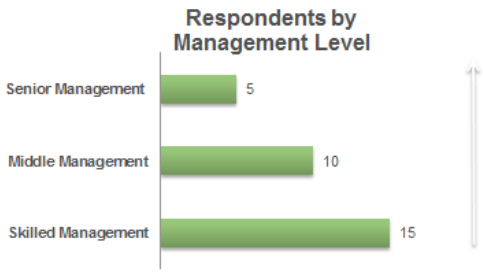
Demographic Information

In total 45 people were asked to be interviewed and out of the 45 people 30 accepted to be interviewed giving a response rate of 67%.

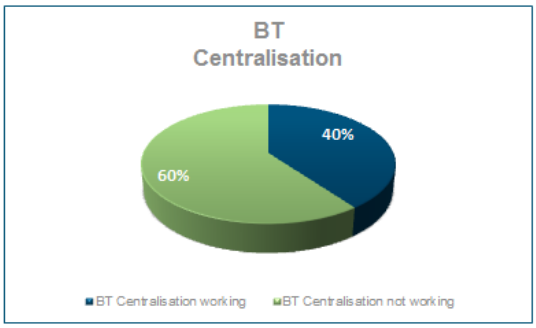








BT Centralisation



Why BT Centralised?

- BT centralisation was about having the ability to utilise resources more effective, realign of architectural, cost elimination, and standardise process across different business units.
- To get the economy of scale advantage and to develop deeper skill and to improve overall BT capability.
- To have a better balance between business and IT specialisation focus.
- To allow for IT governance and enable BT to deliver value to business as a unit.

What's Currently Working

- BT wide decision marking.
- Better co-ordination with regard to architecture standard and Alignment.
- One view of BT which now created one BT community and working together as one.
- Removal of technical debt across BT created by previous Silo approach.
- Common Functional Areas : infrastructure, networks, databases, collaboration tools and help desk systems.
- Co-location of supply resource into the business works well in other business units.

BT Centralisation

Current Issues and Impact

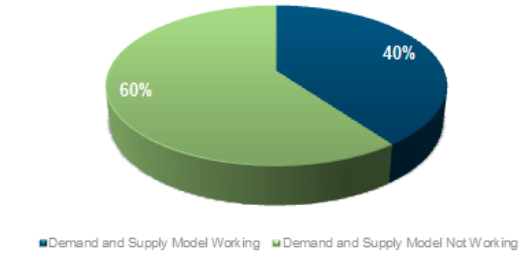
- Leadership
- Inefficient Business Engagement Model
- Roles and Responsibilities definition.
- Lack of Partnership between BT and the business.
- Inefficient Operating Model.
- Dis-empowered knowledge workers in BT.
- Structural Inefficiencies'

BT Centralisation

Current Issues and Impact

- The size of the RMB business makes it challenging to fully have a BT centralisation structure. From the business perspective currently there are business units which can be centralised, which suggest that more analysis is still needed around the BT centralised structure.
- Business engagement model should be considered. Clear roles within business and BT need to be defined. The current engagement principles seems to lack of a partnership between BT and the business.
- The business side reacted most negatively to the centralised BT structure because they are mostly dependent on BT. The reactions to central BT were extremely negative at Global Market business unit, as it appeared to reflect concerns about system failures. These suggest that more analysis is needed around the operating model being used.
- Determining the greatest benefit from centralisation should also be considered, and only selecting those that the organisation want to capture given the IT and business strategy of the organisation.
- Inefficient use of technology, caused by having various systems in RMB that perform the same function and are not being leveraged across different Business Units.

Demand and Supply Model



Demand and Supply Model

The demand and supply model is where the IT staff is divided into two major groups:

- One side that negotiates with business on IT strategy and IT projects and also manages the delivery of projects.
- The second group is responsible to manage the infrastructure and delivers new IT applications.

What's Current Working ?

- Co-location of supply resource into the business works well in other business units.
- The relationship between business and supply is working much better, as there is more collaboration and communication which is improving in the supply teams.

Demand and Supply Model

Current Issues and Impact

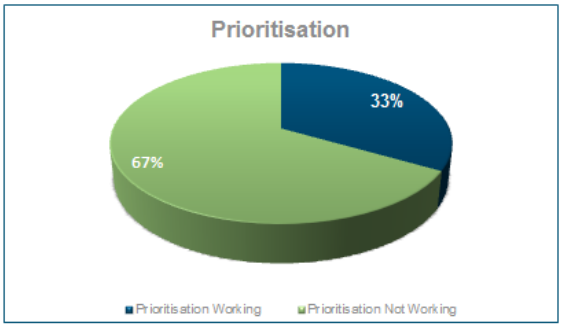
- No comprehensive and effective demand management processes are in place.
- Ineffective change management process in place to serve as channels for demand management.
- Inadequate mechanisms for co-ordinating pockets of innovation into collective expressions of demand.
- Misalignment between project work change and production work change, which then cause changes to be rejected because they cannot fit into project prioritisation list.
- Having the right people on the demand side.
- There is a gap in communication between Demand and Business. In certain Business areas, the Demand office is not even known nor understood. Certain businesses still send their new requirements directly to BT.
- More understanding from the business explaining to them the agile methodology used by supply side.
- From business perspective, seems supply does not have the right resource being recruited to service the business.
- Clearly understanding from business side how run/change initiatives are managed. As you find some resources are doing production support and also on the change initiatives.
- Currently you will have business analyst in the supply side, a true business analyst should be seating with business. You should have system analysts in the supply side. Misalignment of roles definition.
- Change buckets ineffective, amounting to planned, unplanned and also much abused emergency change categories.
- No formal change prioritisation process and change management not effectively used.
- Delivery is slow from the Supply side. Even though there is delivery at the end of the day, delivery is not as quickly as business would expect.

Demand and Supply Model

Current Issues and Impact

- The flow of work is impacted, especially when you address change initiatives and run the bank initiatives. There are more bottle necks around and too many stationary points, no seamless hand over points.
- Silo approach makes it challenging to see the bigger picture.
- Demand now wants to manage the delivery of supply in this case BT.
- Ineffective demand recording leads to effective supply, which creates an expectation gap between user's and IT.
- Business feels that they are lagging its competition and falling behind further due to its systems not keeping up.
- Supply side only as good as its understanding and management of demand.
- The lack of users discipline and not adhering to change management process, because no consequence used for not following the process.
- Cumbersome change management process does not promote acceptable throughput, so user's by-pass it.
- Ineffective change buckets brings about ineffective change advisory board (CAB)
- Absence of formal prioritisation further impacts throughput.

Prioritisation



What's Prioritisation

- Prioritization is meant to create alignment and visibility on what the teams are working on. It's meant to set expectations to business so they know what is being worked on at all times.

What's Currently Working

- The creation of the Top 10 prioritised project across the bank has made things run better. A sense of control of resource makes it much better in delivery of the set out strategy.
- More information in terms of top down. More clarification in terms of the why the item was prioritised.

Prioritisation

Current Issues and Impact

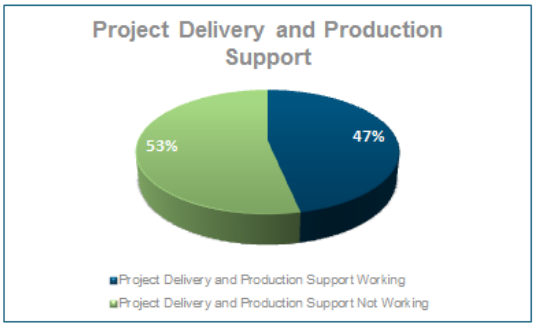
- Process not transparent and regarded by many as "clandestine"
- Prioritisation process perceived to be exclusive, rather than inclusive.
- Ineffective and limited prioritisation process. Ineffective sourcing and recording of demand.
- Current prioritisation process seen as one size fits all, lack of distinction between projects and production changes.
- Prioritisation first considers resource availability then demand, rather than prioritisation demand and then considering feasibility.
- Not having a clear prioritised list. For example you would have something prioritised and named "data management" which can mean lots of things to different people. More details needed.
- Collection of the entire business requirement is currently not working. Business expectation and support area was working in isolation.
- No measurements are in place for projects, which makes it a challenge to quantify a project.
- Sequence of project is not in place so you are unable to measure and also allocate the right resource for project.

Prioritisation

Current Issues and Impact

- The lack of planning, especially long term plans, looking at the next 2-3 years.
- Impossible to prioritise demand if process does not encourage and recognise participation by all stakeholders for example when some stakeholders prioritise are not important enough.
- Imbalance of resource allocation between project work and production support work.
- Prioritisation rendered ineffective, whereby business do not see the need to raise their requirements, which leads to timelines getting missed.

Project Delivery and Production Support



Project delivery and Production Support

What's Currently working

- Strong PM's in some area make project delivery effective.
- When there is proper coordination and a common understanding of what the requirements are and why, the teams pull together and deliver value to business.

Project Delivery and Production Support

Current Issues and Impact

- Currently not working for business, caused by inefficient PM
- No defined role to both project and production support.
- No alignment between the project manager and the demand manager.
- Currently BT is not meeting to business demand.
- Preference for gifted (Internal) amateurs rather than real project managers.
- A different rule applies for larger projects vs other projects.
- Little consistency in approach to project management.
- Roles clarification between 'Change the bank' and 'Run the bank'
- Matching BT skills and business skills

Project Delivery and Production Support

Current Issues and Impact

- Project budget over runs, not achieving deadline and user's expectation not being met.
- RMB PMO does not have sight of all BT IT projects.
- Ineffective prioritisation creates expectation gap between users and IT, and adversely impacts project throughput.
- Not having the right PM brings more risk to the project delivery and inaccurate PM costs.
- Many of the PM's are inefficient and this leads to not getting the actual work done.
- We currently have more activity on "run the bank", and very little activity on "change the bank". This is caused by having the resources doing run and change the bank. What should happen is that having two teams: One that do "run the bank" and another that do "change the bank".
- BT is becoming silo and becoming out of touch with business. BT is not interacting with business and thus losing roach

Conclusions and Recommendations

- It is evident from the literature and the findings there was an under estimation of the impact on people, process and system simplication. The study also shows no impact assessment was conducted as time to get this done was rushed. It is also noted from our study, when you pursue IT centralisation in a strategic vacuum of only cost-savings target, better architectural alignment, enhanced IT capability, and better IT career paths for staff you also need to understand the business goals you need to support to be able to select the most appropriate level of centralisation.
- The study shows underestimation of the effort required to rebuild trust lost to poor initial service delivery to business. The business user's seems to have been forgotten, as their ability to absorb change was a key factor in determining the process to be successful. These silent resistors were also overlooked, and they seem to have also derailed the centralisation efforts through non- compliance. Hard decisions must be made and change to the current constraints, otherwise the current constraints will have a snowball effect.

BT Centralisation - Recommendations

- The size of the RMB business makes it challenging to fully have a BT centralisation structure. From the business perspective currently they are business units which can be centralised, which suggest that more analysis is still needed around the BT centralised structure.
- The current engagement principles seem to suggest a lack of collaboration and partnership between BT and the business. Structural changes required separating out the engagement related to run /operational activities versus change activities are recommended. The Run and Change portfolios require different focusses with clear roles within business and BT. The business side which reacted most negatively to the centralised BT structure was Global Market (GM), with their main concern being system failures. This suggests a heightened focus on the run aspect of BT especially considering the significant dependency of GM on the 'up-time' of these trading systems.
- Inadequate group-wide architecture has resulted in a myriad of different system in RMB that perform similar functions that are not leveraged across different Business Units and has created significant inefficiencies. It is suggested that the architecture be reviewed with a view to simplifying and enabling reuse of system and function across the various business areas.
- Creating an effective across-BU IT-business interface should be considered; this will provide transparency to business around group-wide priorities and challenges as well as the expected roadmap for delivery.
- A fully centralised BT structure does not seem to address the challenges of providing specialised BU-specific demands. Given this, a model that enables closer alignment to BU and better flow of delivery should be considered.
- Centralisation should be considered, for those aspects of IT that are core or common functions to the whole organisation.

Demand and Supply Model - Recommendations

- The current challenge in RMB seems to suggest that the demand side are 'middlemen' and are not necessarily able or equipped to respond to the demands of the business owners. Given that IT is a strategic driver, demand should own business process, should understand the underlying technology as well as the key business drivers. From a demand 'innovation' perspective the demand function is disempowered in many ways as a result of the complexities of the current architecture and the inability to introduce new product /function. Demand management organisational structure should be driven in a manner whereby future architectural requirements are channelled appropriately into the bank-wide business and solutions architecture. Lack of engagement and not having the right resource in the demand side and supply side are negatively impacting on the effectiveness of the model. The rules of engagement should be clearly defined and both demand and supply should respect the role of the other to enable successful delivery.
- Demand should review the BU specific project pipeline and identify prioritisation to optimise the value add to be gained across the portfolio.
- The supply side must start to obtain in-depth understanding of the business capabilities that are required. This is so as to be able to provide value-adding support to business. Supply also need to start thinking of the skill set that will be required to service the business in the future.

Prioritisation - Recommendations

- Business in collaboration with BT should drive across business prioritisation, and it should include all the business area and rank work across the organisation with a clear understanding of the skills/people required in both BU and BT to deliver.
- As indicated above an RMB Change capability should be created whereby the focus is on enabling the delivery of identified and prioritised projects that are aligned to an agreed roadmap.

Project Delivery and Production Support - Recommendations

- The creation of two teams should be considered. The one team for 'run the bank' and the second is for 'change the bank'. The current model is inefficient and costly as there is high degree of context switching with people working in both projects and production simultaneously. This has resulted in a lack of change delivery as well as a perceived lack of run-excellence in most areas.
- Building a focussed change capability including processes for project management, project funding, software/application development and project tracking including value delivery should be created. The specific role and accountability of the project manager especially in relation to BT and business management should be a focus area.
- Specific focus and attention needs to be given to securing the right mix of skills and competencies to facilitate both the run and change functions. This should include the process of ensuring that the projects are delivered and can be supported sustainably. Consideration could be given is some cases to a rotational system whereby a specific person does support and then at a later stage switches to do project work. Having rotation of resources between production support and project delivery resources, will lead to more efficient delivery of solution to business knowing very well that you well have to support it later.
- The lack of users discipline and not adhering to change management process needs to change. Users need to understand the consequence of non-conformance.

Disclaimer

Appendix D: Permission Letter

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Reg. No. 1929/001225/06
An Authorised Financial Services Provider

RAND MERCHANT BANK
A division of FirstRand Bank Limited

01-Jul-2016

Dear Review Board:

It is my understanding that John Siti will be conducting a research study at Rand Merchant Bank on "Centralising Information Technology for the delivery of Financial Investment Services: An RMB Impact Study". We are aware that John Siti intends to conduct his research at RMB.

I grant John Siti permission to conduct his research at our organization. If you have any questions or concerns, please feel free to contact my office.

Sincerely

[redacted]

Regards,

Alan Vickery

CIO

Appendix E: Editor's Declaration

DECLARATION BY LANGUAGE EDITOR

27 June 2016

TO WHOM IT MAY CONCERN

DECLARATION: LANGUAGE EDITING of MSc Dissertation

I hereby declare that I have edited the Master of Science in the Management of Technology and Innovation dissertation of JOHN SITI entitled *"**CENTRALISING INFORMATION TECHNOLOGY FOR THE DELIVERY OF FINANCIAL INVESTMENT SERVICES: AN RMB IMPACT STUDY**"* and found the written work to be free of ambiguity and obvious errors. It is the responsibility of the student to address any comments from the editor or supervisor. Additionally, it is the final responsibility of the student to make sure of the correctness of the dissertation.

[redacted]

Khomotso Bopape

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