Rhodes Business School

Leadership for Sustainability

A TEACHING CASE STUDY OF THE STRATEGIC ALIGNMENT OF BUSINESS STRATEGY AND INFORMATION TECHNOLOGY STRATEGY AT NEDBANK

A dissertation submitted in partial fulfilment for the requirements of the degree

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By

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Submission date: December 2012

DECLARATION

I, Tebalo Tsoaeli, do hereby declare that this thesis is my own work and that all reference sources have been accurately acknowledged and documented. Further, this document in its entirety or in part has not previously been submitted to any University in order to obtain an academic qualification.

Tebalo Tsoaeli Date: December 2012

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INTEGRATIVE SUMMARY

1. Context of the Research

In today's business world, a lot of organizations are investing heavily in Information Technology (IT) in order to develop a competitive edge. According to Loukis, Sapounas and Milionis (2009:85) "firms all over the world make significant investments in IT aiming to increase their efficiency and effectiveness". According to Cline and Guynes (2001:10), "during the last 30 years, IT has become an increasingly integral part of business operations". Most of the times, organizations fail to get real value from the investments made in IT. This is mainly due to the fact that organizations fail to realize the value brought about by aligning IT strategy with Business strategy. Hu and Huang (2004:60) state that "each year organizations invest in IT to improve their competitive advantage and ultimately their business performance; however, more often than not, the anticipated benefits of IT investments fail to materialize due to misalignment of or lack of alignment, between the business and IT strategies". Henderson and Venkatraman (1999:475) emphasize that "alignment is a desired state for organizations investing in IT that is not always achieved, as it often entails a radical change in the way managers consider IT".

It is through the alignment of IT strategy and Business strategy that organizations are able to realize the value brought about by investing in IT. Papp (2001:20) illustrates that "misalignment can cause problems with not only the development and integration of business and IT strategies, but can actually prevent IT from being fully leveraged to its maximum potential within an organization". An organization that realizes the value of aligning IT strategy and Business strategy is able to develop a competitive advantage over its competitors. According to Daneshvar and Ramesh (2010:1) "each organization is aware of the special effects, benefits and implication of IT in business performance and also its capacity in building sustainable competitive advantages".

2. Objective of the Teaching Case Study

The research conducted in this thesis develops a teaching case study of the strategic alignment of Business strategy and Information Technology (IT) strategy at Nedbank, one of the top four banks in South Africa. Using a teaching case study approach, the research study identifies how the bank has aligned business strategy and IT strategy to realize value from IT investments, the research study identifies existing gaps between business strategy and IT strategy in the bank, the research study identifies the reasons why alignment gaps exist between business strategy and IT strategy, and finally the research study suggests methods which can be used to minimize the identified strategy alignment gaps between Business strategy and IT strategy.

3. Rationale of the Teaching Case Study

This research study was motivated in wanting to develop a teaching case study targeted at MBA students. The teaching case study provides insight into how Nedbank has managed to achieve some level of alignment between its IT strategy and business strategy, the current alignment gaps that exist between IT strategy and business strategy at the bank and how those gaps can be minimised.

4. Outcomes of the Research Study

The survey results showed that some level of alignment exists between the business strategy and IT strategy. The results showed that IT strategy mainly supports the business strategy. On the other hand, the business strategy does not really support the IT strategy. The results showed that the business strategy is a driving factor and that the IT strategy plays a supporting role. The survey results highlighted that the alignment model that the organization has adopted leans more towards the technology leverage perspective where business strategy plays a leading role and the IT strategy plays a supporting role.

5. Structure of the Dissertation

This dissertation consists of three sections.

Section 1: A teaching Case Study

This section of the research introduces Nedbank and its Group Technology (GT) division where the research was conducted. This section further describes the Nedbank group strategy, the GT strategy and the strategic alignment between the GT strategy and group strategy. The section also represents the results of the survey that was conducted at the bank. The results of the survey show the ranking of the perceived outcomes of alignment and the ranking of the alignment factors. The results also reveal the measures that the bank has put in place in order to achieve alignment between IT strategy and business strategy. The results also highlight the alignment gaps that exist between IT strategy and business strategy at the bank. Furthermore, the results of the survey provide recommendations of how the alignment gaps between IT strategy and business strategy can be minimised.

Section 2: Literature Review

The literature review of this research study focuses on three main research areas, namely Business strategy, IT strategy and Strategic Alignment. The literature review emphasizes the importance of strategic alignment between Business strategy and IT strategy and also suggests how strategic alignment between the two can be achieved. The literature review also explores models that past research recommends be used to achieve and maintain alignment between Business strategy and IT strategy. The recommended models are used in the teaching case study to minimize the strategic alignment gaps that are identified.

Section 3: Research Methodology

This section of the research provides a description of how the research was conducted. It also indicates the research process followed in developing this teaching case study. The research study was concerned with developing a teaching

case study of the strategic alignment of Business strategy and IT strategy at Nedbank. The respondents of the research study were divided into two main categories. Type 1 Respondents were the IT managers from the IT division of the bank. Type 2 Respondents were the business managers from the various divisions of the bank that get IT services from the IT division. Given that all respondents of the research study were all from specific target groups, purposive sampling was used to identify the research study respondents. A Structured and fixed-alternative questionnaire was used to conduct interviews with the research respondents. The questionnaire was structured in such a way that it allowed the researcher to obtain information that would assist in achieving the aim and goals of the research study. Documents were collected that objectively assisted in achieving the aim and goals of the research study. A purposive sample of documentation was selected from the IT division's Strategy Improvement Programme (SIP) initiative documentation.

6. References

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SECTION 1: A TEACHING CASE STUDY – The Strategic Alignment of Business Strategy and Information Technology (IT) Strategy at Nedbank

1.1 Introduction

The main focus of this section of the research study is to provide a background of Nedbank and its Group Technology (GT) division where the research was conducted. The research provides a high level overview of the bank's strategy and GT strategy. The research explores how the bank's GT strategy has been formulated and implemented in such a way that it is aligned with the overall business strategy of all the different business clusters that GT supports. The research outlines GT's three strategic pillars that have been developed to ensure that GT's strategy is aligned with the business strategy of all the business clusters that GT supports.

This section of the research also contains the results of the survey that was conducted at the bank. The aim of the survey was to gather adequate information that would assist the researcher in developing a teaching case study of the strategic alignment of business strategy and Information Technology (IT) strategy at the bank. The survey was conducted through a series of interviews that were conducted with management staff of GT and the management staff of the various business clusters supported by GT. A sample of documentation was also selected from GT's Strategy documentation. The documentation was analyzed and assisted the researcher in evaluating the strategic alignment of Business strategy and IT strategy at the bank. The results of the survey together with information collected from the strategy documentation are presented in this section of the research. The survey results and information obtained from the strategy documentation show the following:

- The measures that the bank has put in place in order to achieve alignment between business strategy and IT strategy.
- The alignment gaps that exist between business strategy and IT strategy in the bank.
- Why these alignment gaps exist between the business strategy and IT strategy in the bank.
- Factors considered being important towards achieving alignment between business strategy and IT strategy.

1.2 Background to Nedbank

Nedbank (the bank) is currently considered to be one of the "big four" in South Africa. The company prides itself with being one of the oldest banks in South Africa. The bank was first established in 1831. The bank's headquarters are in Johannesburg, Sandton. The bank's ordinary shares have been listed on the JSE since 1969 and on the Namibian Stock Exchange since 2007

The bank's board of directors consists of 13 non executive directors and 3 executive directors. The bank currently provides employment to 28678 employees. The bank's vision is to build Africa's most admired bank by staff, clients, shareholders, regulators and communities. According to Nedbank Group (2012) on 13 July 2010, the bank announced that it had achieved carbon neutrality. In partnership with the University of Cambridge Programme for Sustainability Leadership the company continues to develop and enhance its practical strategic framework that integrates its economic, environmental, social and cultural sustainability programmes.

1.3 Background to the bank's Group Technology Division

The bank's Group Technology (GT) division is an internal division whose main focus is to deliver information technology services to all the divisions of the bank. GT is headed by the Chief Information Officer (CIO). The CIO has several executives reporting into him. Each executive's responsibility is to look after a business cluster that has been allocated to him or her.

To begin with, the role of GT in the bank is to provide affordable technological solutions to the different business clusters in the bank. The technological solutions range from the development of systems, development of technology infrastructure, systems support, LAN administration and desktop support. GT is also responsible for setting technology standards that the entire bank has to conform to. For example setting security standards of how internal systems should communicate with systems external to the organization. GT also provides advisory services to the various business clusters in the organization on any matters relating to technology. Simply put, GT's role is to enable business divisions to function in a more effective and cost efficient manner, and to become more competitive through the use of technology.

1.4 The Bank's Strategy

According to Bestbier (2011:13), an executive from the Group Strategy business cluster, the bank's vision is "Building Africa's most admired bank, by our staff, clients, shareholders, regulators and communities". In order to deliver on its vision, the bank has taken the following key decisions:

- Adopt a portfolio approach to optimize scarce resources – focus to be placed on more judicious allocation of capital, liquidity and costs.
- To focus on being a low cost operator for emergent banking clients.

- To become the top end bank of retail and wholesale – focused on great service, functionality, advice and building on strengths.
- Greater agency in African expansion – the bank should continue to explore expansion opportunities in Africa, but only expect positive returns in the longer term.
- Focus and investment into new markets, channels and previous strengths.
- Core IT systems rationalization.
- Improve development programs.

The bank has produced a strategy that will help it deliver on its vision and accomplish the key decisions that have been mentioned above. According to Bestbier (2011:15) the bank's strategy is named "**From Good to Great strategy – GR8**". The GR8 has placed emphasis on the following eight strategic focus areas:

1. Client driven
2. Manage for value
3. Primary clients and cross sell
4. Risk as an enabler
5. Productivity and execution
6. Unique and innovative culture
7. Transformation
8. Green and caring bank

Bestbier (2011:18) indicates that in order to deliver on the GR8 strategic focus areas, the bank's strategy for 2012 to 2014 is to focus on the following objectives:

- To build enduring primary banking relationships with more retail and wholesale clients.
- To grow noninterest revenue (NIR).
- To grow economic profit (EP) through portfolio tilt.
- To reposition its retail offering.
- To become a leader in business banking in South Africa.
- To become the public sector bank of choice.

- To continue as one of the top two wholesale banks in South Africa.
- To ramp up the wealth and asset management and insurance businesses.
- To expand into Africa.
- To listen to, understand and deliver for, its clients.
- To build on the company's position as a leader in, and influence of, integrated sustainability.

In the current strategic planning cycle, the focus areas of client-centred approach and evolving the company's plans for expansion in Africa and embedding sustainability as a strategic driver have been afforded increased priority.

According to Bestbier (2011:20), with client focus at the centre of its strategic framework, the bank will focus on providing innovative offerings levering the deeper understanding of its clients. The bank will also focus on driving conscious changes that make it easier for clients to do business with the bank and seamlessly integrate the bank into their lifestyles.

Bestbier (2011:20) indicates that as part of its Africa expansion strategic focus, the bank intends to become Africa's most admired bank through implementing its strategy to grow its physical network in the Southern African Development Community (SADC), leveraging boutique investment banking opportunities throughout Africa, deepening its alliance with its north African partner bank to provide clients with access to a Pan-African banking network, and evaluating selective investment opportunities in sub-Saharan Africa.

1.5 Group Technology (GT) Strategy

GT's vision is to leverage technology to enable Nedbank to become Africa's most admired bank through creating a low cost, agile and differentiated operating platform.

GT has adopted a three pillared approach to execute its strategy. Figure 1 highlights the three strategic pillars and the teams within GT that are responsible for the execution of each respective strategic pillar. The three pillars are:

1. Group and GT collaboration – improving collaboration between GT and all the business clusters in the bank.
2. Strategic Improvement Programme (SIP)
3. Improving GT efficiencies and project portfolio prioritisation and management – creating a low cost operating platform.

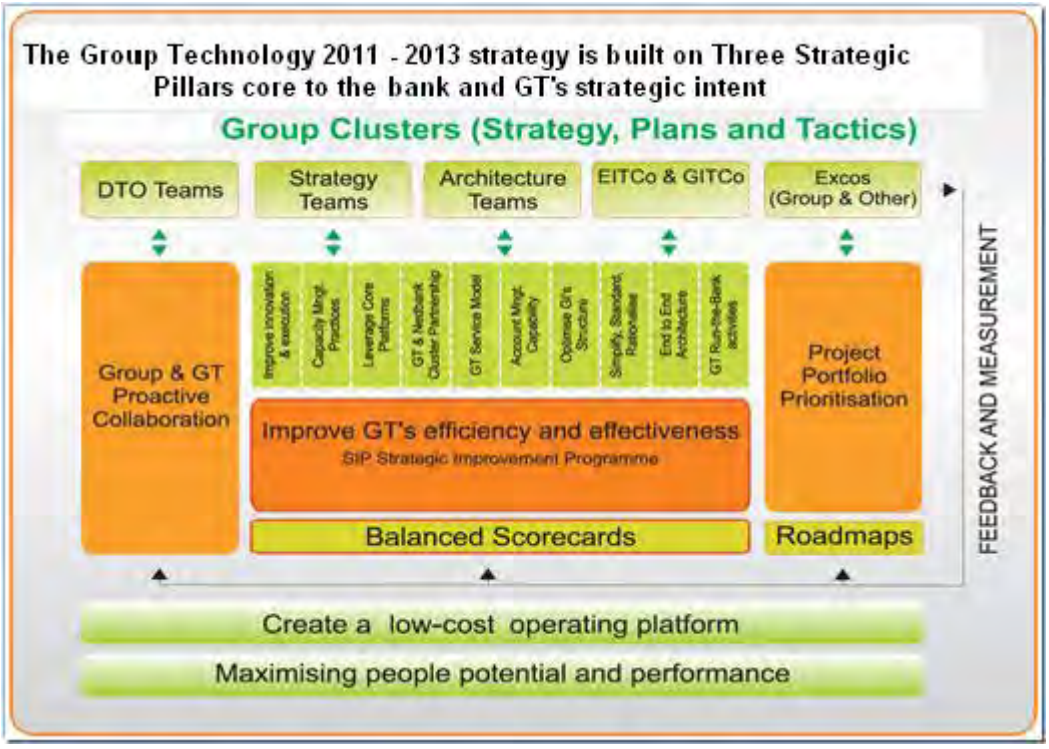

Figure 1: GT's Three Strategic Pillars (Van de Venter and Gcaba, 2011:2)

Appendix 2 – Teaching Note: GT Strategy – Three Strategic Pillars, delves into the details of each of the three strategic pillars of the GT strategy.

The strategic priorities are:

- Improved project prioritisation,
- Simplification of the IT architecture,
- Improved innovation execution, and
- Improved group-wide collaboration and optimising GT's performance in key areas.

SIP is seen as an important part of the strategy to take GT to the next level of performance.

The GT strategy fully supports the Group's GR8 strategic focus areas and directly gives effect to Group (the bank) requirements. The main thrusts required from Group are:

- Improve innovation by 50%
- Rationalise the IT landscape and address end to end process management – "220 to 60 journey"
- Improve portfolio prioritisation and programme management
- Look for R500m per annum efficiencies "in the core"

At the beginning of 2009, GT commissioned two external benchmarking assessments, from Oliver Wyman Consultants and McKinsey & Co, to assess its strategy and assist in defining levers for improvement. According to Wyman Consultants And McKinsey & Co (2009:6) the benchmarks confirmed the GT business plan and IT strategy as being correctly defined. They also affirmed the areas for improvement already known to and being actioned by GT.

According to Wyman Consultants And McKinsey & Co (2009:10), McKinsey & Co concluded that the bank is a relative “high IT spender” compared to best practice global banks. The bank’s noninterest revenue income gap relative to larger scale banks exacerbates the issue. The results of the assessments indicated that simplifying, standardizing and rationalizing IT infrastructure and business operations can produce up to R0.5bn per annum savings. The applications portfolio showed redundancy and duplication factors of between 3 and 10 as opposed to global best practice of 1 to 2. The results of the assessment also showed that the bank needed to transform its operating model using IT to enable sales and through end-to-end simplification of products, processes, channels and IT to achieve an increased level of automation.

According to Wyman Consultants And McKinsey & Co (2009:10), Oliver Wyman Consultants reached a similar conclusion, namely that GT costs are within the local peer grouping benchmarks, but that the total cost of IT for the bank is higher and the mix of spend is biased more towards ‘run the bank’ than ‘change the bank’. They concluded that too low a percentage of spend goes toward IT improvement projects and that any decentralized IT function in the bank should be investigated with the intention of creating a more centralized function wherever possible. Also that unregulated business demand drives complexity and rework. End-to-end process management has not been established, leading to issues with hand-offs between functions and unbalanced staffing ratios. Simplifying and standardizing the technical and business process infrastructure was one of their key recommendations.

1.6 Alignment of the GT strategy to the bank’s GR8 Strategic focus

GT has used its three strategic pillars or core focus areas to align with the bank’s GR8 strategic focus areas. Each of the three strategic pillars is aligned with specific business objectives that have been set at the group business clusters level by the bank. The business objectives of the business clusters are in turn supporting the group GR8 strategic focus areas that have been identified as part of the bank’s strategy.

The bank currently consists of six business clusters which are namely, Retail banking, Business banking, Corporate banking, Capital markets, Wealth management and Africa. GT has ensured that its three strategic pillars are aligned with each of the business objectives of the six different clusters in the bank. Within GT there exists a team of senior executives reporting into the CIO. Each executive has been given the responsibility and mandate to look after a business cluster that has been assigned to them. Each executive's team consists of resources whose focus area is spread amongst the three strategic pillars. For example, there is a team whose responsibility is to deliver on the SIP mandate. There is another team (the DTO) that looks after Group and GT proactive collaboration. Lastly, there is a team that takes care of project prioritization.

According to two executives from GT, Howcroft and Wheater (2011:38), GT's three strategic pillars have resulted in acceptance that future innovation must be driven by cluster and GT generated roadmaps driven by Group and GT strategies. Howcroft and Wheater (2011:38) indicate that technology roadmaps are currently produced each year during the planning cycle. The maturity of these roadmaps depends on several factors including how many times they have been iterated, as well as the level of collaboration between the Business Clusters, Divisional Technology Officers, and Architects. This collaboration ensures a blend of the bank's strategic objectives, business cluster strategic objectives, and GT strategic objectives to produce an optimal project portfolio. Howcroft and Wheater (2011:38) state that the more senior representation there is in this collaboration, the more meaningful and value-adding the roadmap.

Howcroft and Wheater (2011:38) argue that the most pressing challenge encountered while putting the roadmaps together is that they are currently done as an annual event in parallel to the business planning cycle. This makes accessing key business representatives as well as obtaining the most current planning and strategy information difficult, which results in draft roadmaps being submitted until the latest planning and strategy information can be applied – usually after the final plans have been submitted.

Howcroft and Wheater (2011:38) emphasize that going forward GT will be introducing several improvements to the roadmap process to, amongst other things, mitigate the above challenge. These include making the roadmaps living plans that will be updated as trigger events (e.g. financial issues, competitive pressures, strategic changes, etc.) occur throughout the year as well as ensuring that the relevant senior business sponsorship is available.

1.6.1 Alignment of GT Strategy to the Individual Business Clusters

This section explores the business objectives of each of the business clusters and how GT's strategy is aligned to those objectives.

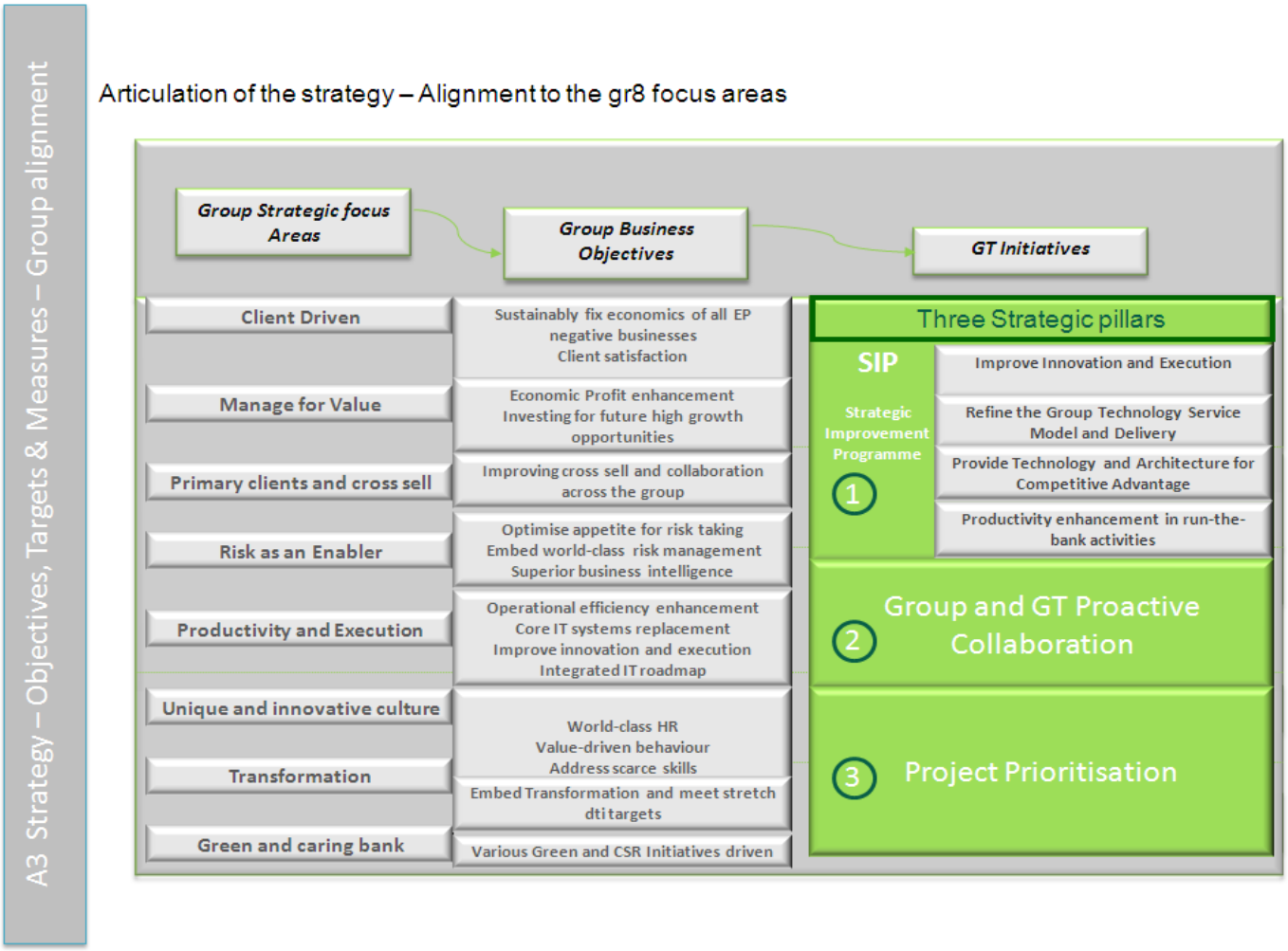

Figure 2: Group Strategy and GT Strategy Alignment (Howcroft and Wheater, 2011:33)

According to Howcroft and Wheater (2011:33) GT has put together a three year technology roadmap of initiatives that will be used to help Retail banking, Business banking, Corporate banking, Capital markets, Wealth management and Africa banking deliver on their strategic objectives. Howcroft and Wheater (2011:33) point out that the aim of the technology roadmap is to incorporate information (existing architecture and challenges/opportunities) in a structured way across all relevant business areas that either make use of custom or shared technology and processes. These are then matched to the pre-defined business themes in order to gather a consolidated view of the business cluster opportunities for simplification and differentiation. Figure 2 shows how each of the three strategic pillars of GT is aligned to the group business objectives. It also shows how the group business objectives are in turn aligned to the group strategic focus areas. Figures 3 to 8 show the three year roadmap that GT has put in place for each of the business clusters.

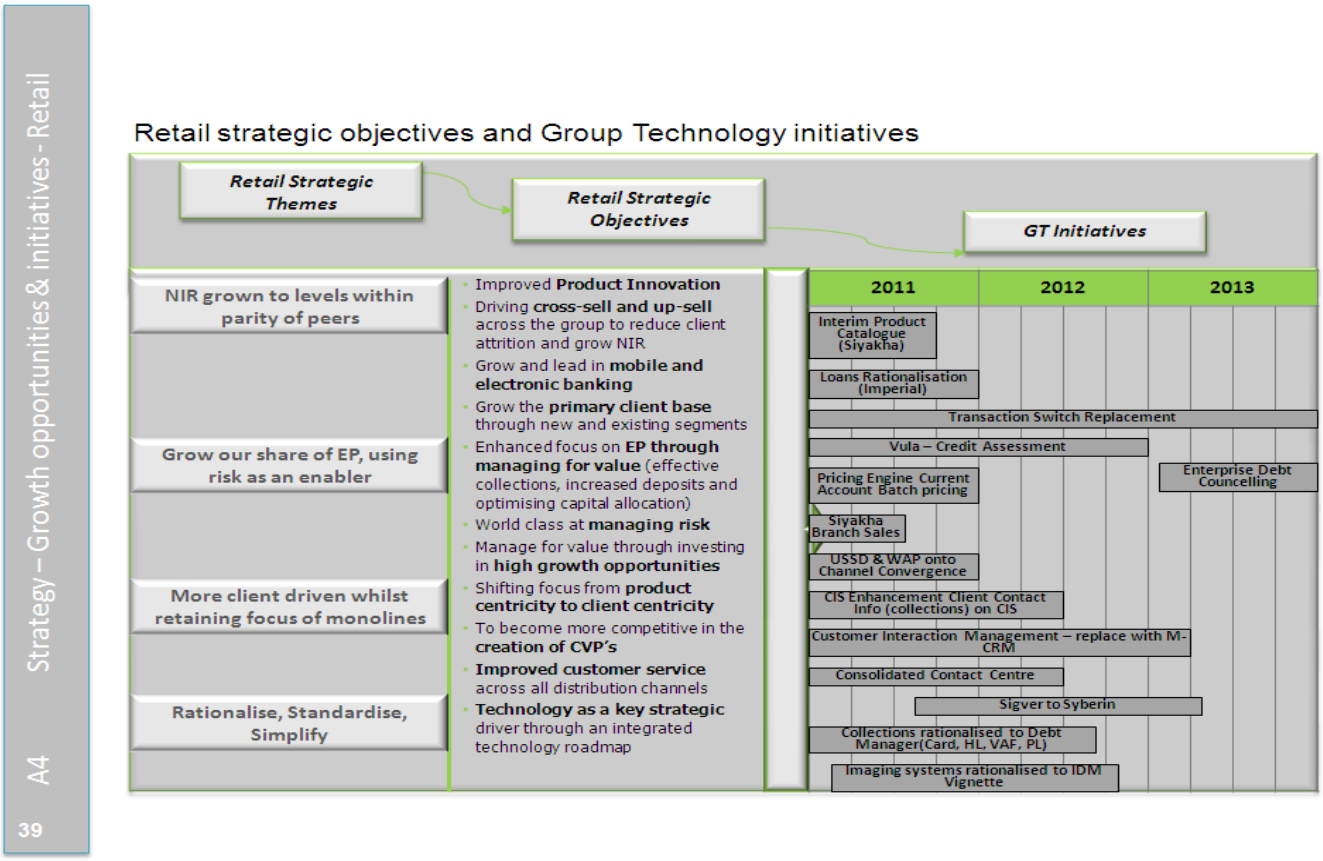

Figure 3: Retail strategic objectives and GT initiatives (Howcroft and Wheater, 2011:39)

GT has developed a three year roadmap of initiatives in support of the Retail strategic objectives. The three year roadmap consists of projects that support each of the Retail strategic objectives. Figure 3 shows the various projects that are part of the roadmap and the strategic objectives that each project is in support of. According to Howcroft and Wheater (2011:39) the aim of the three year roadmap is to incorporate information in a structured way across all relevant business areas that either makes use of custom or shared technology and processes. These are then matched to the pre-defined business themes in order to gather a consolidated view of the retail opportunities for simplification and differentiation. According to Howcroft and Wheater (2011:39), in 2011, GT implemented project Siyakha in support of the Retail strategic objectives “Improved product innovation” and “Driving cross-sell and up-sell across group to reduce client attrition and grow NIR”. Howcroft and Wheater (2011:39) state that the Siyakha project resulted in the rationalisation of 33 systems. Howcroft and Wheater (2011:39) indicate that the loans rationalisation project implemented in 2011 was aimed at consolidating the loans systems that were inherited when Nedbank acquired Imperial bank.

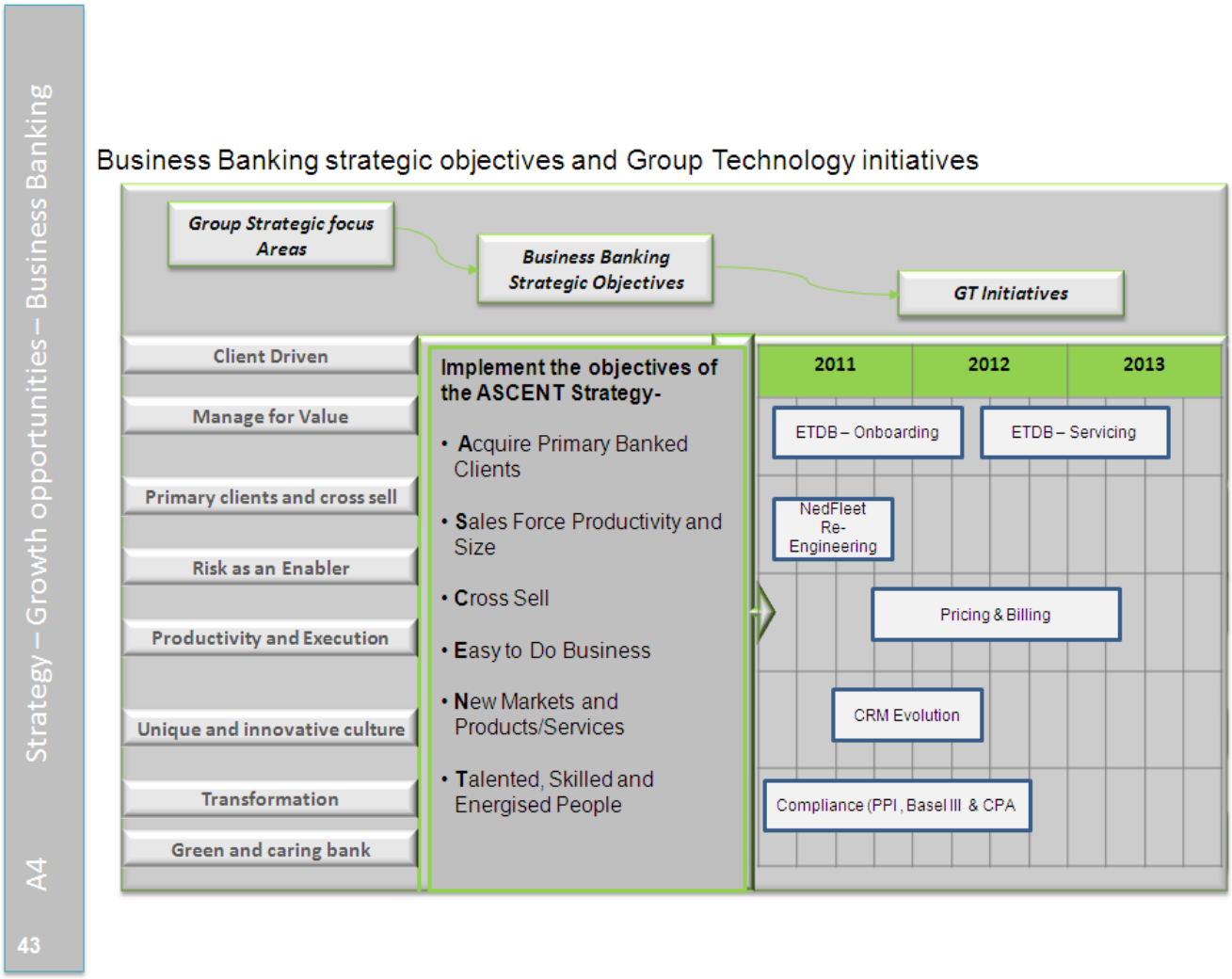

Figure 4: Business banking strategic objectives and GT initiatives (Howcroft and Wheater, 2011:43)

Figure 4 shows the three year roadmap of projects that were put in place in order to support the Business Banking strategic objectives of the ASCENT (**A**cqquire **S**ales **C**ross **E**asy **N**ew **T**alented) strategy. According to Howcroft and Wheater (2011:43) Business Banking's vision is becoming the number one business bank. Howcroft and Wheater (2011:43) state that the ETDB (Easy To Do Business) – On-boarding project was initiated in support of the "Acquire Primary Banked Clients" strategic objective. The project was completed during the beginning of the second quarter of 2012. The CRM (Customer Relationship Management) Evolution project was implemented in 2011 and completed towards the end of the third quarter in 2012.

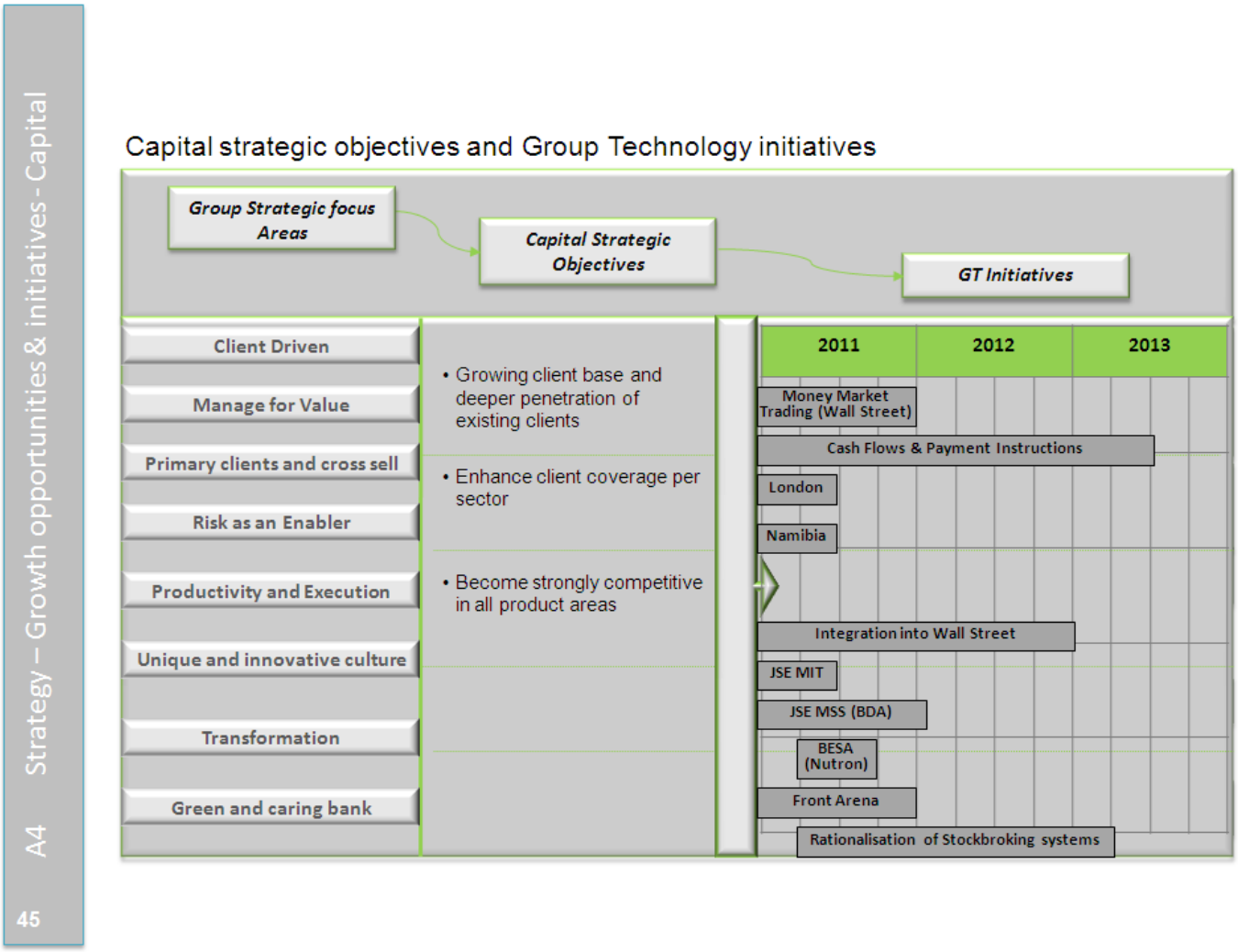

Figure 5: Capital strategic objectives and GT initiatives (Howcroft and Wheater, 2011:45)

Figure 5 shows the three year road map of projects that GT implemented in support of the Capital strategic objective. According to Howcroft and Wheater (2011:45) Capital's vision is to create the investment bank of the future. During 2011, GT implemented a money market trading system called Wallstreet. The aim of the project was to help Capital achieve its strategic objective of growing client base and deeper penetration of existing clients. The cash flows and payment instructions project initiated in 2011 and ending at the end of the second quarter of 2013 is also in support of the same Capital strategic objective.

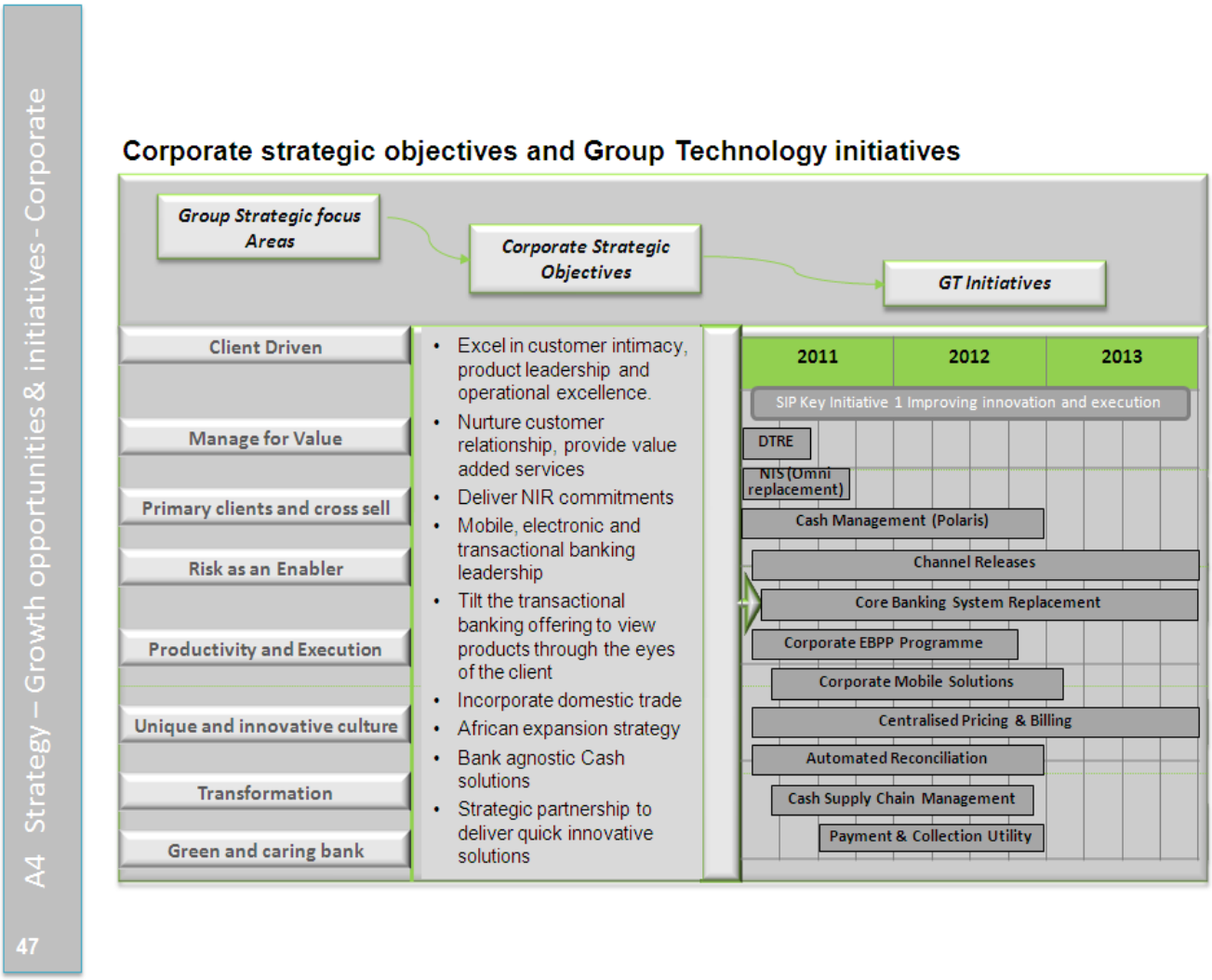

Figure 6: Corporate strategic objectives and GT initiatives (Howcroft and Wheater, 2011:47)

As part of its three year roadmap, GT has come up with initiatives that support the Corporate strategic objectives. Howcroft and Wheater (2011:47) state that Corporate's vision is to become Africa's most admired bank. Howcroft and Wheater (2011:47) indicate that some of the GT initiatives that support the Corporate strategic objectives are aimed at evolving the end-to-end architecture in order to create a competitive advantage for the bank. One of these initiatives is the core banking system replacement initiative highlighted in figure 6. The channel releases initiative supports the Corporate strategic objective "Mobile, electronic and transactional banking leadership".

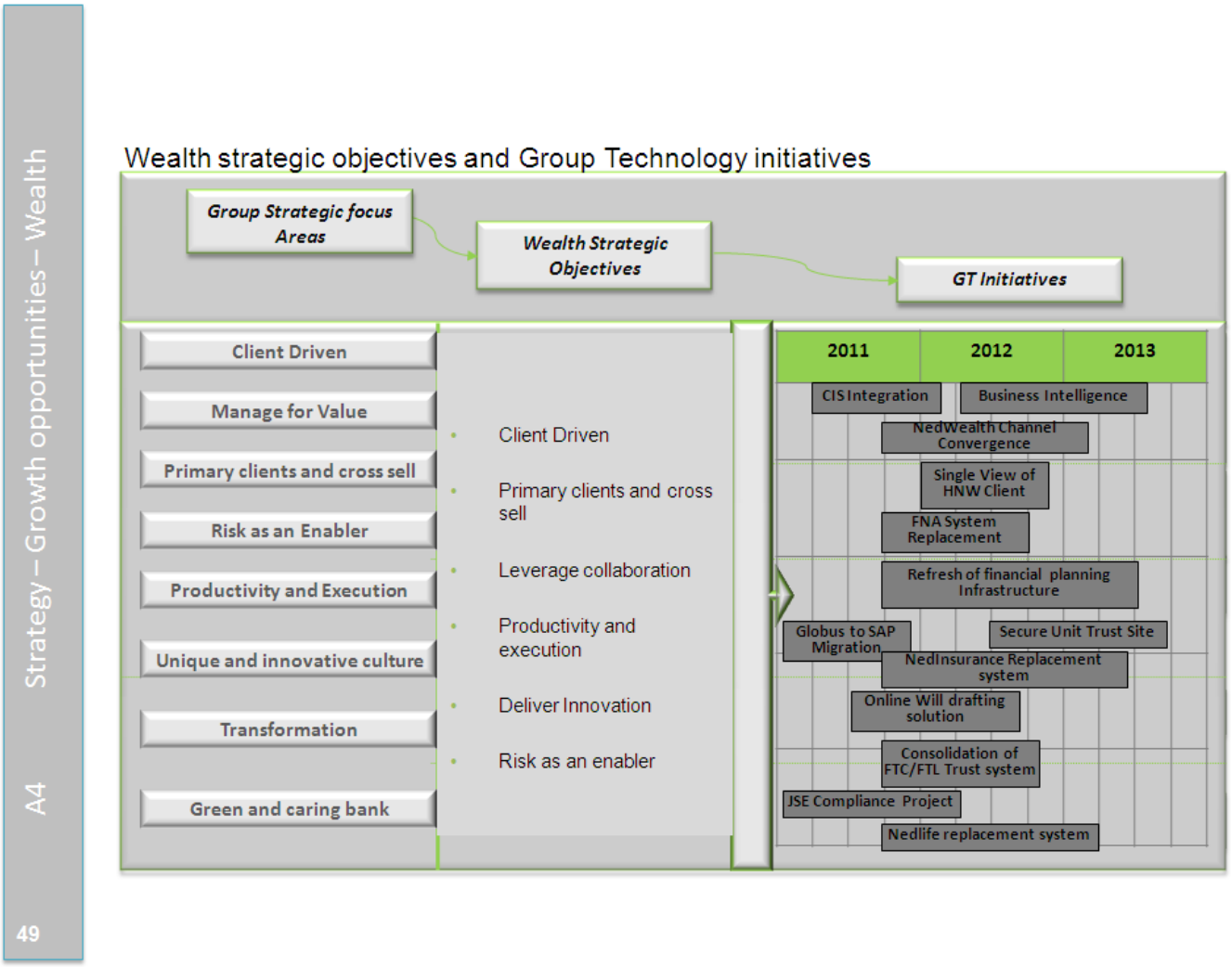

Figure 7: Wealth strategic objectives and GT initiatives (Howcroft and Wheater, 2011:49)

According to Howcroft and Wheater (2011:49) Wealth's vision is to become leaders at creating, preserving and protecting wealth. In order to realise its vision, Wealth has put in place a number of projects that are part of its three year roadmap. Figure 7 shows how these projects in turn support the strategic objectives of Wealth. For example, the Online Will Drafting Solution has been implemented to support the strategic objective "Deliver Innovation". The NedInsurance Replacement System project has also been implemented to support the same strategic objective.

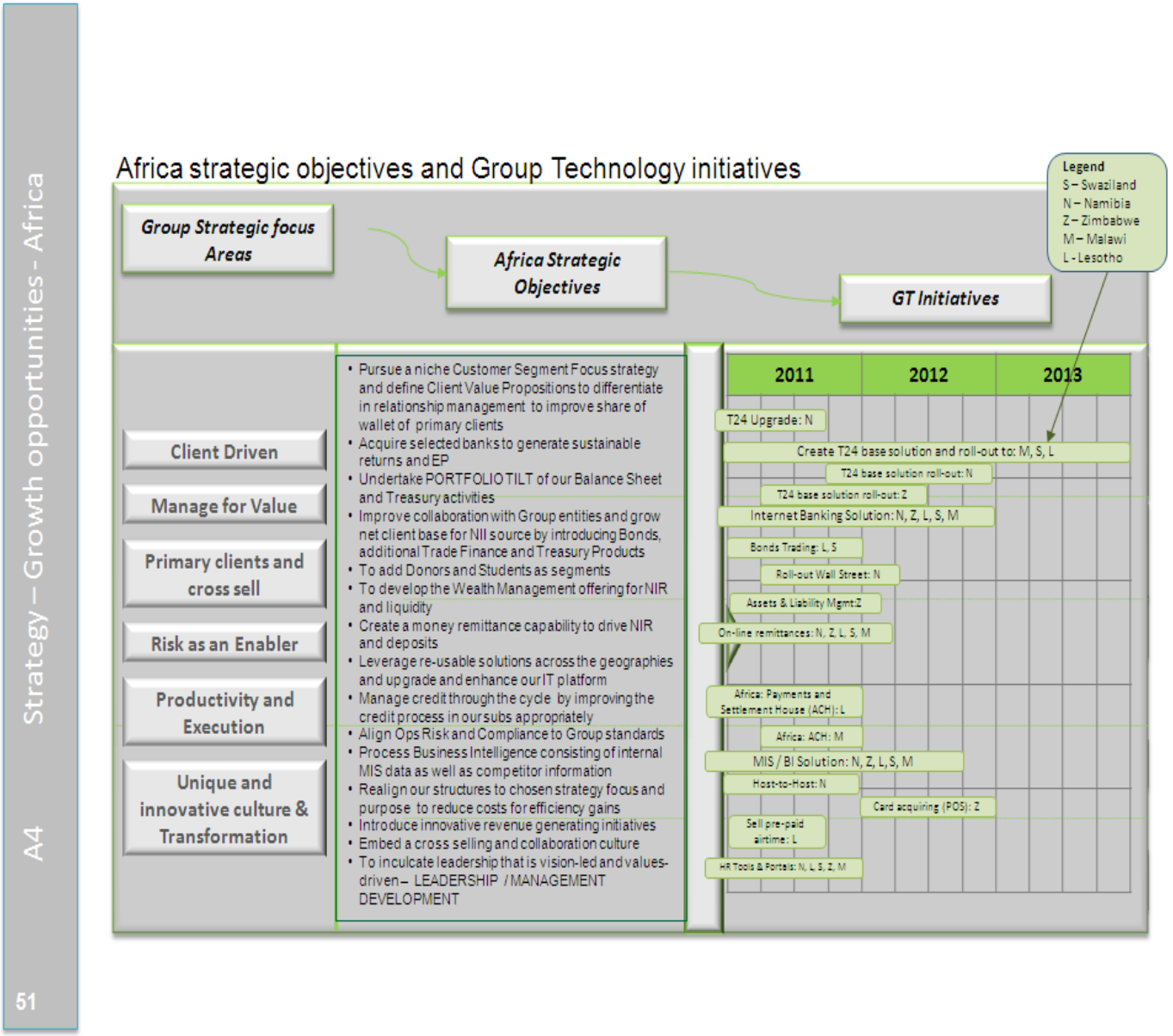

Figure 8: Africa strategic objectives and GT initiatives (Howcroft and Wheater, 2011:51)

According to Howcroft and Wheater (2011:51) Africa's vision is to have a standardised IT platform that is agile, cost effective, scalable and reliable. In order to realise its vision, Africa has put in place a number of initiatives as part of a three year road map. Figure 8 shows the initiatives that support the 15 strategic objectives of Africa. One of the initiatives includes the creation of the T24 base solution and its roll-out to the different African countries. Another initiative is the roll-out of the Internet Banking solution in Namibia, Zimbabwe, Lesotho, Swaziland and Malawi.

1.7 The Survey Results

This section of the research study presents a consolidated view of the results of the survey that was conducted to develop a teaching case study of the strategic alignment of business strategy and IT strategy at Nedbank. The survey was conducted using the questionnaire in Appendix 1 – Interview Questions. This section presents the following information obtained from the survey that was conducted:

- The measures that the bank has put in place in order to achieve alignment between business strategy and IT strategy.
- The alignment gaps that exist between business strategy and IT strategy in the bank.
- Why alignment gaps exist between the business strategy and IT strategy in the bank.
- Business strategy and IT strategy alignment factors.
- Perceived outcomes of alignment business strategy and IT strategy.
- Recommendations on how the alignment gaps that exist between business strategy and IT strategy in the bank can be minimized.

The survey included questions specific to business strategy, IT strategy and the strategic alignment of the two. Thirteen participants from business and thirteen participants from IT completed the survey.

1.7.1 Analysis of the survey results

This section of the research provides a detailed analysis of the information that was obtained from the survey that was conducted with participants from the different business clusters of the bank and GT. The responses have been coded to establish the mean of the responses. This will represent the average answer per question. The mean responses are calculated and represented in Appendix 4 – Response to Individual Questions. Based on the alignment factors identified by various studies mentioned in the literature review, a criterion was developed that identified the top alignment factors that are enablers of business strategy and IT strategy alignment in the bank.

1.7.1.1 Ranking of the results

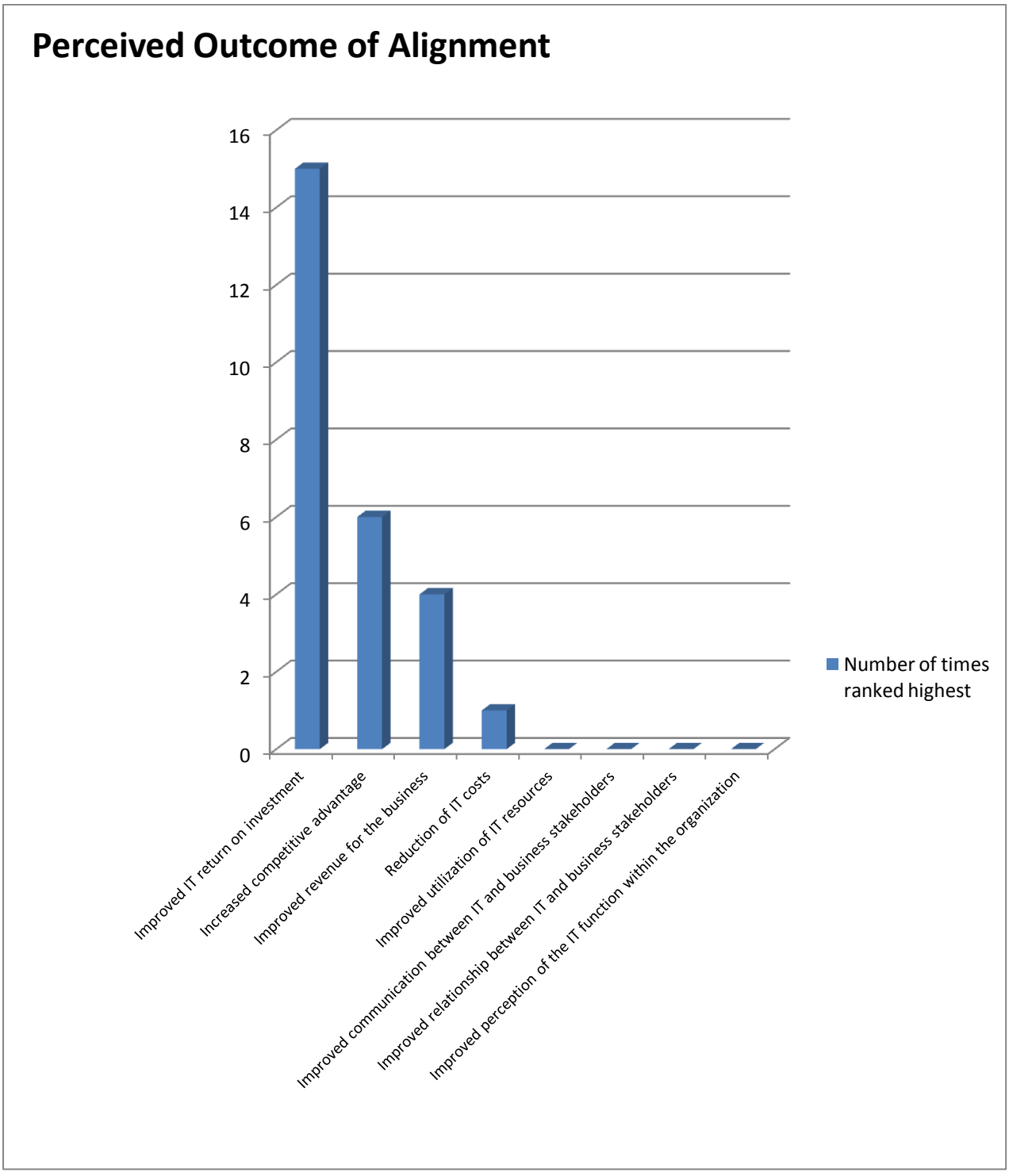

Figure 9: Perceived outcomes of alignment - Number of times ranked highest by GT and Business clusters respondents

According to figure 9 (Perceived outcome of alignment – number of times ranked highest by GT and business clusters respondents), both GT and business clusters respondents ranked “Improved IT return on investment” as the most important outcome that can be achieved through aligning business strategy and IT strategy. This perceived outcome of alignment was ranked highest by 15 respondents from GT and the business clusters.

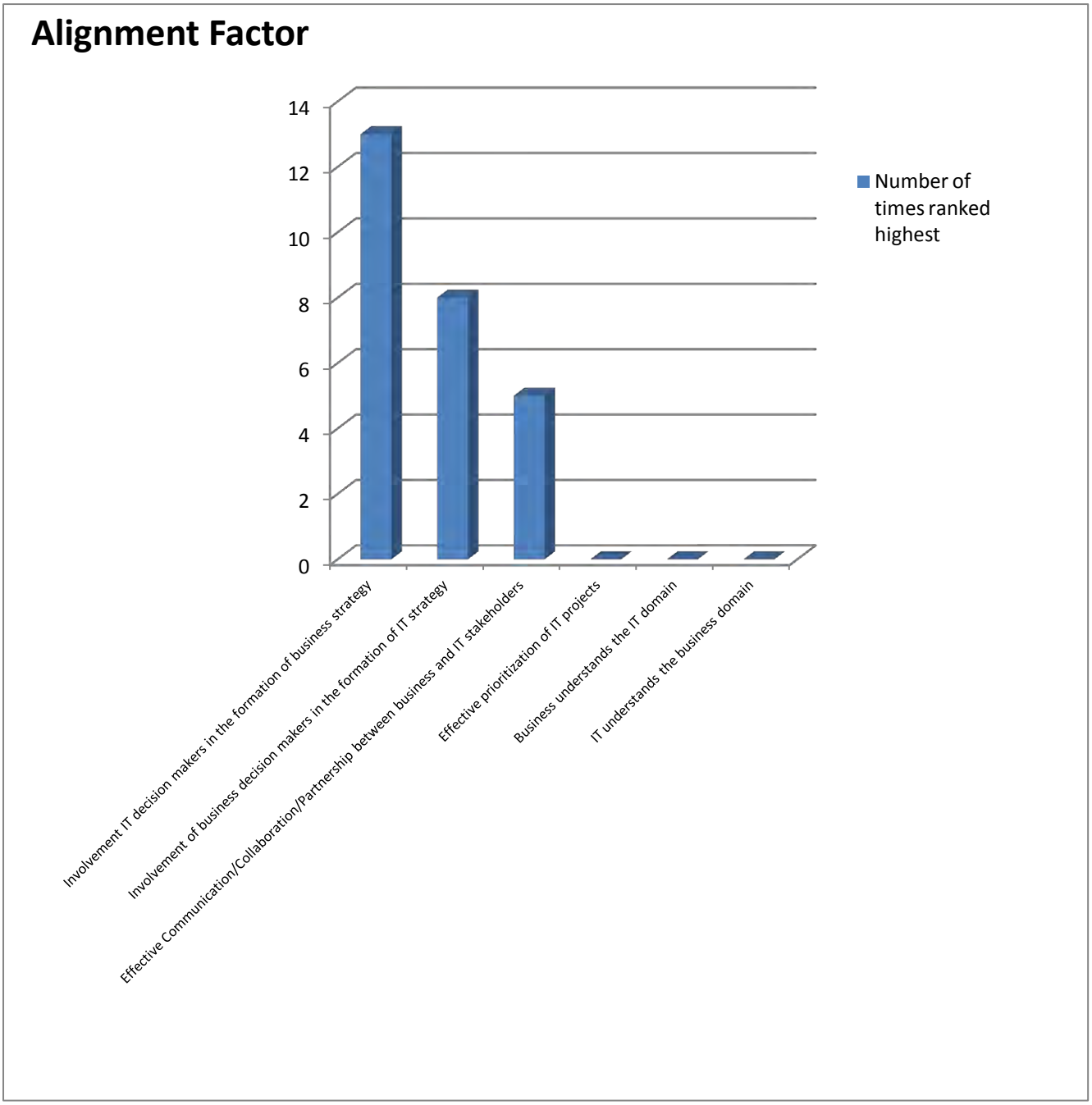

Figure 10: Alignment Factors – Number of times ranked highest by GT and Business clusters respondents

According to figure 10 (Alignment factors - Number of times ranked highest by GT and Business clusters respondents) the combined rankings by respondents from GT and business clusters showed “Involvement of IT decision makers in the formation of business strategy” as the highest ranked alignment factor followed by “Involvement of business decision makers in the formation of IT strategy” as the second most important alignment factor.

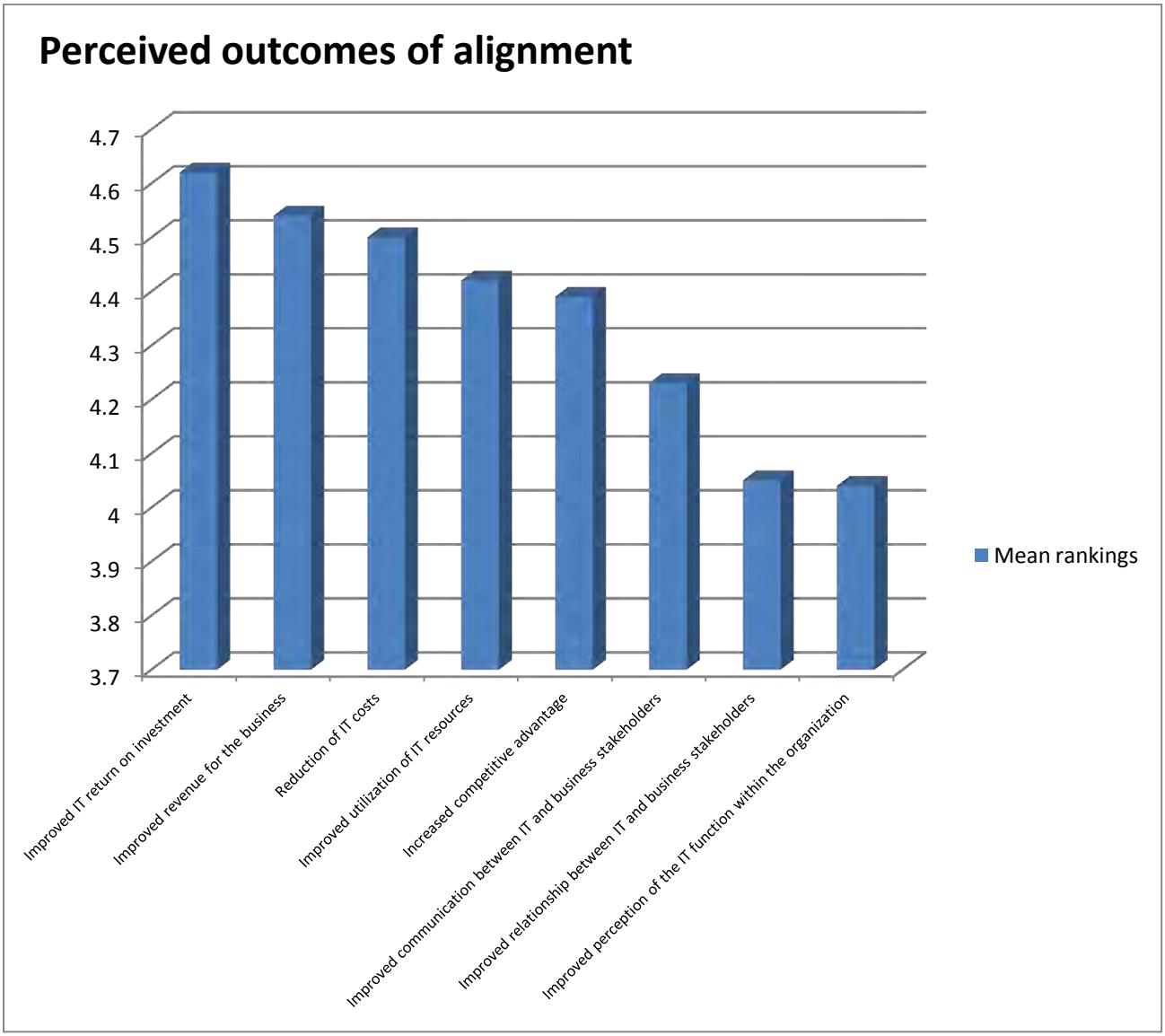

Figure 11: Perceived outcomes of alignment – Mean rankings by GT and Business clusters respondents

According to figure 11 (Perceived outcomes of alignment – Mean rankings by GT and Business clusters respondents), both GT and business clusters respondents still ranked “Improved IT return on investment” as the most important outcome that can be achieved by aligning business strategy and IT strategy. This perceived outcome of alignment received the highest mean ranking of 4.62 (Very Important).

Although figure 9 (Perceived outcome of alignment – number of times ranked highest by GT and business clusters respondents) showed “Increased competitive advantage” as the second (ranked highest by 6 respondents) most important outcome that can be achieved through aligning business strategy and IT strategy, the mean rankings of figure 11 (Perceived outcomes of alignment – Mean rankings by GT and Business clusters respondents) showed a different picture. The mean rankings showed this perceived outcome of alignment as the fifth most important outcome. This revealed to the researcher that this difference was mainly due to the difference in views/opinions from the respondents from GT and business clusters.

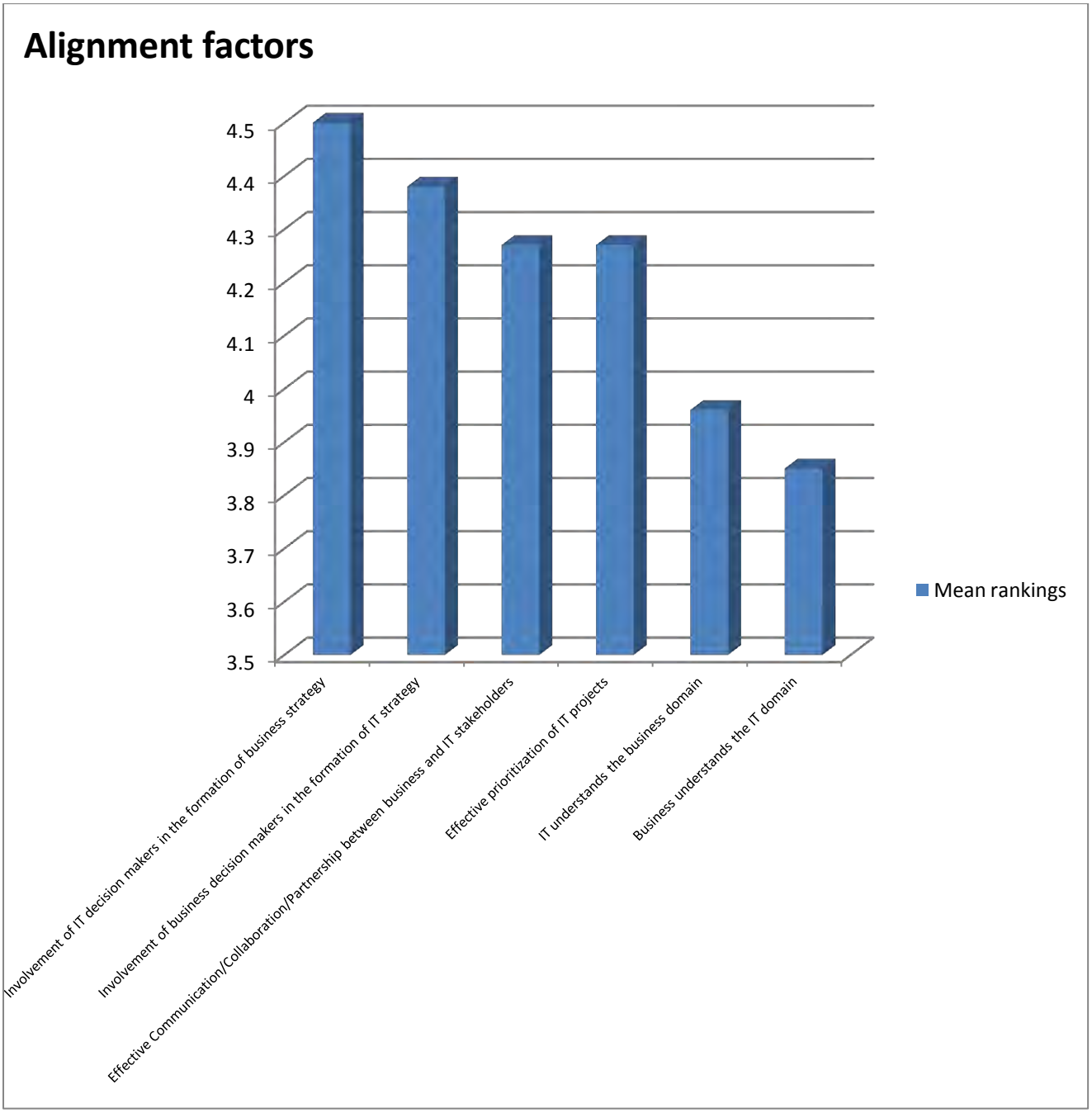

Figure 12: Alignment factors - Mean rankings by GT and Business clusters respondents

Figure 12 (Alignment factors - Mean rankings by GT and Business clusters respondents) show that the mean rankings showed the same picture as "Involvement of IT decision makers in the formation of business strategy" was ranked as the most important alignment factor followed by "Involvement of business decision

makers in the formation of IT strategy" being ranked as the second most important alignment factor.

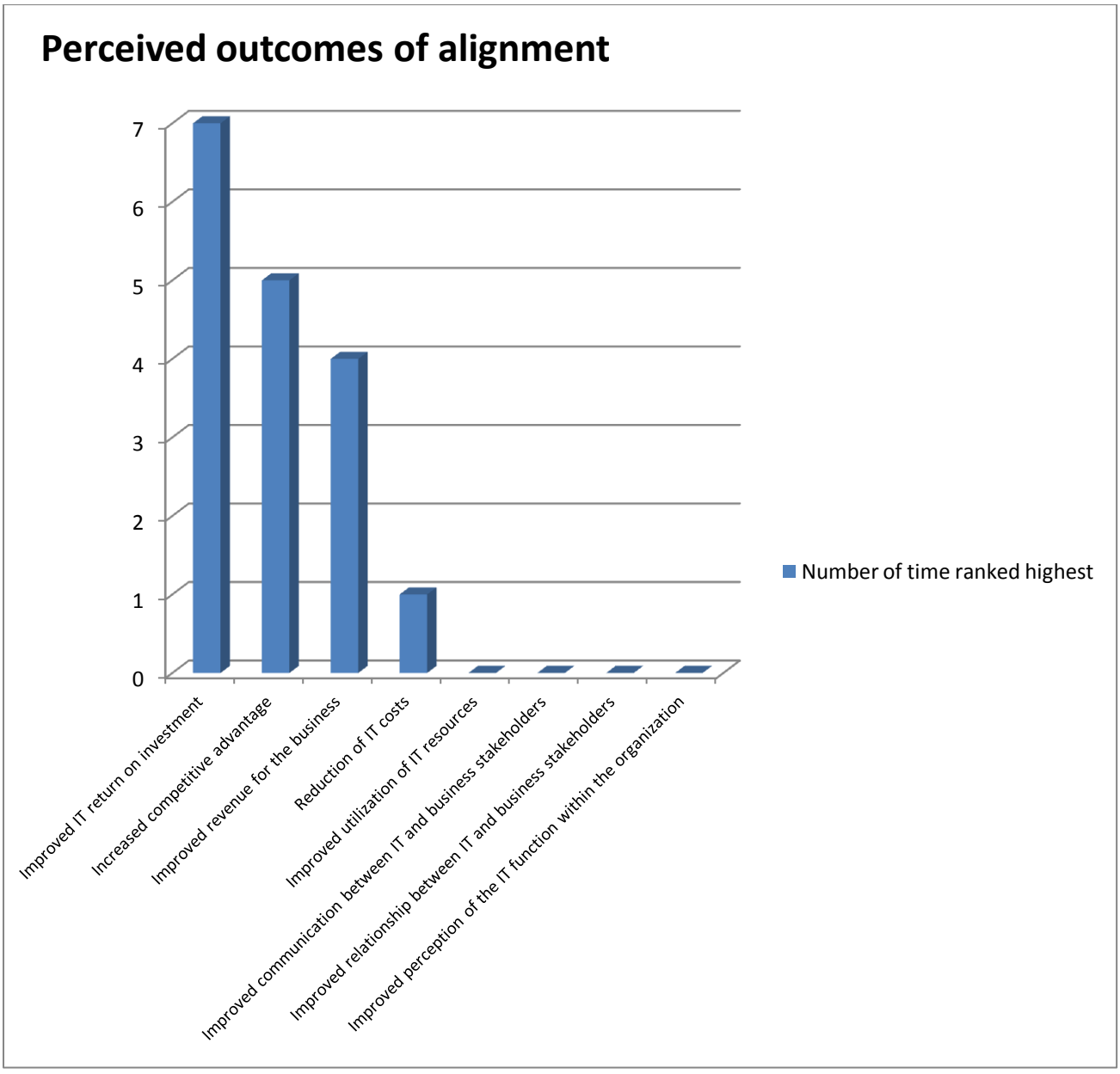

Figure 13: Perceived outcomes of alignment - Number of times ranked highest GT respondents

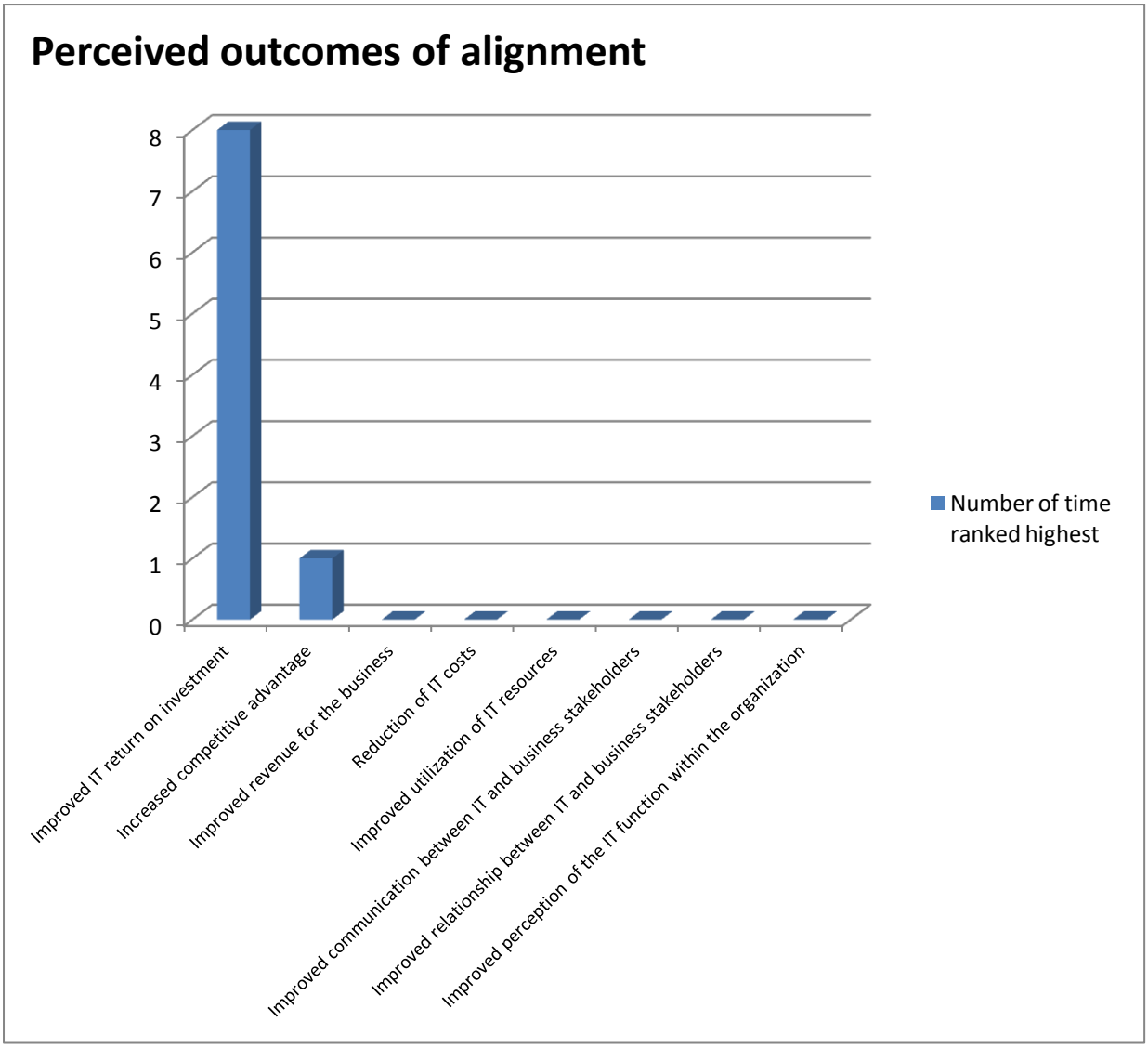

Figure 14: Perceived outcomes of alignment - Number of times ranked highest by business clusters respondents

Further segregation of the results from the respondents was done and proved that GT and business clusters respondents had different views with regard to the perceived outcomes of alignment. figure 13 (Perceived outcomes of alignment - Number of times ranked highest by GT respondents) and figure 14 (Perceived outcomes of alignment - Number of times ranked highest by business clusters respondents) show that respondents shared the same view with regard to "Improved IT return on investment" as respondents from the two areas ranked this perceived outcome as being the most important one. The main difference in views lies in the ranking of the "Increased competitive advantage" outcome. Five GT respondents

ranked this outcome as being the second most important whereas only one respondent from the business clusters ranked it as being the second most important.

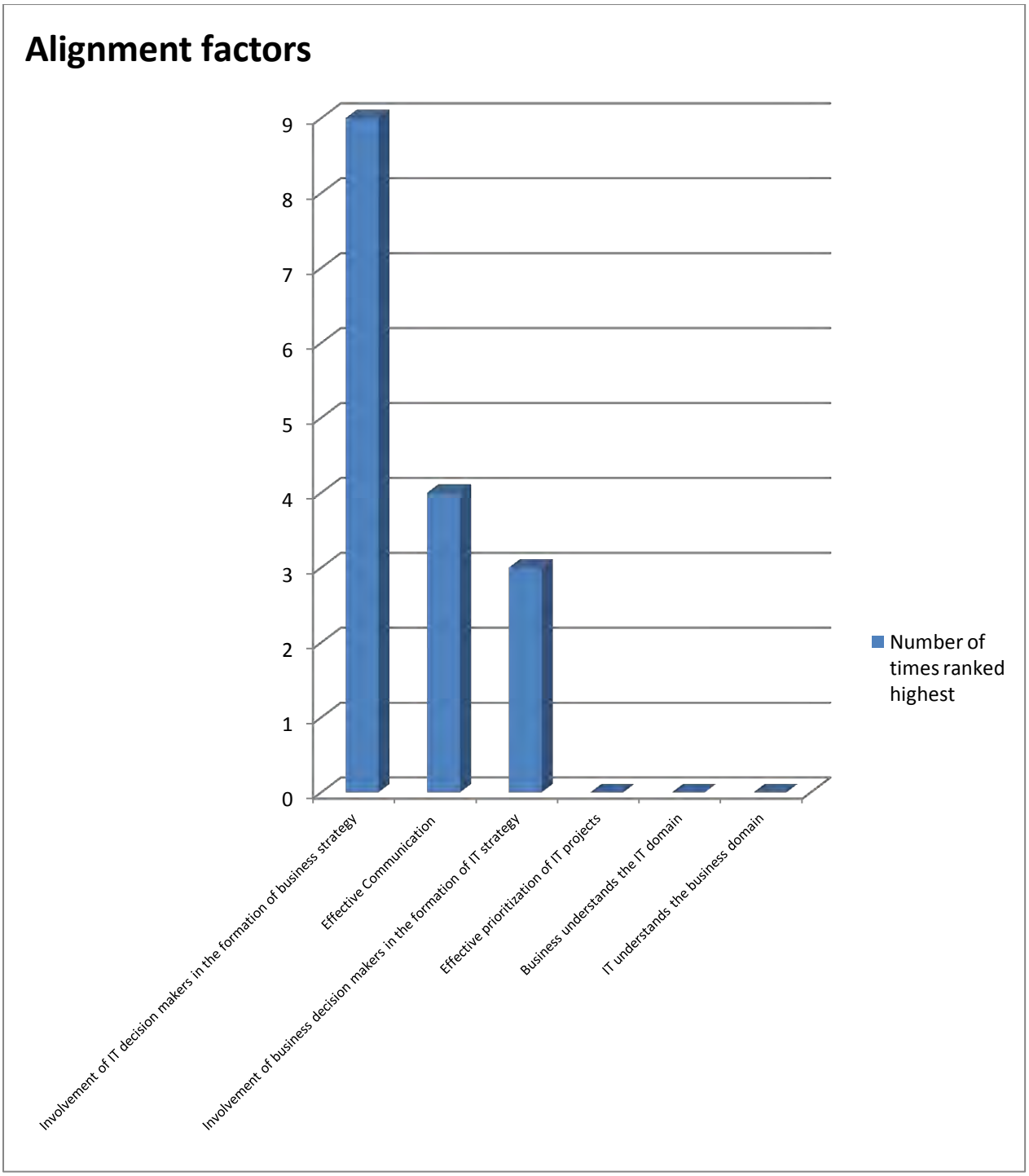

Figure 15: Alignment factors - Number of times ranked highest by GT respondents

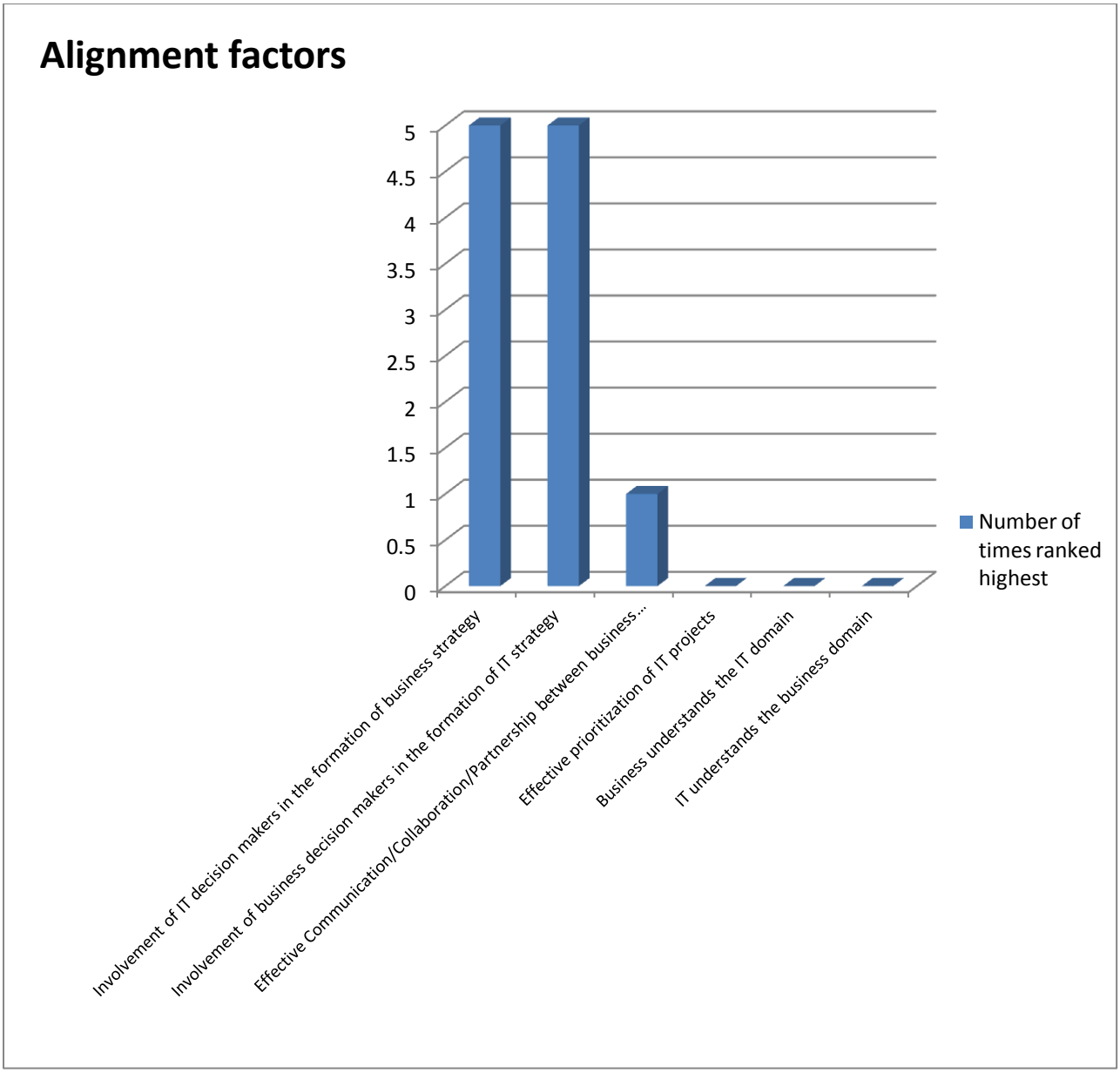

Figure 16: Alignment factors - Number of times ranked highest by business clusters respondents

Further segregation of the alignment factor rankings was done to see whether respondents from GT and the business clusters shared the same views with regards to the importance of each of the alignment factors. figure 15 (Alignment factors - Number of times ranked highest by GT respondents) showed respondents from GT ranking "Involvement of IT decision makers in the formation of business strategy" as the most important alignment factor followed by "Effective Communication/Collaboration/Partnership between business and IT stakeholders" as

the second most important and “Involvement of business decision makers in the formation of IT strategy” as the third most important. figure 16 (Alignment factors - Number of times ranked highest by business clusters respondents) shows a different picture in that respondents from business clusters ranked both “Involvement of IT decision makers in the formation of business strategy” and “Involvement of business decision makers in the formation of IT strategy” as the most important alignment factors followed by “Effective Communication/Collaboration/Partnership between business and IT stakeholders” as the third most important.

1.7.1.2 Measures put in place to achieve alignment between business strategy and IT strategy

Some of the long questions that were included in the survey were specific to the measures that the bank has put in place in order to achieve alignment between business strategy and IT strategy. This section of the research highlights the measures that were identified by the respondents that participated in the survey. The measures highlighted in this section also include those that were identified from the strategy documentation that the researcher was referred to.

All of the respondents felt that the GT strategic pillar of “Group and GT Proactive Collaboration” is one measure that is actually contributing towards ensuring that business strategy and IT strategy are aligned. The DTO teams have been assigned the responsibility of ensuring that IT decision makers are represented in the business cluster strategy formulation sessions. The DTO teams are also responsible for ensuring that the relevant business decision makers are represented in the GT strategy formulation sessions. It is the responsibility of the DTO teams to drive effective collaboration between the business clusters and GT.

Respondents also indicated that alignment of business strategy and IT strategy is achieved through the new performance management programme that has been introduced. The performance management programme ensures that an individual’s

goals roll up into the team goals. The team goals also roll up into the business cluster goals. The business cluster goals in turn roll up into the group goals. This ensures that that all individuals are aligned and delivering well against the right priorities and goals. This process involves calibration which is the process of cascading and communicating organizational goals throughout the Group. This ensures goals across the business and teams are aligned to the overall priorities of the business. In this way, each individual knows exactly what the group's strategy is, how it is translated into their own business unit and functional team priorities as well as their personal goals.

Respondents felt that GT project prioritization is another measure that contributes towards ensuring that business strategy and IT strategy are aligned. Group Exco and GT Exco actively prioritize projects in support of the bank's strategy. This ensures that GT pursues those projects that will help the business clusters deliver on their strategic business objectives accordingly. Continuous monitoring and reviewing of these projects ensures that GT supports what is important to the business. The projects are assessed from a strategic perspective as well a ROI perspective.

Respondents also indicated that the establishment of committees has contributed towards ensuring that business strategy and IT strategy are aligned. The responsibility of the GT Exco is to understand the group's strategic focus areas and work together with the Group Exco to determine how GT can enable the group to deliver on its strategic objectives. The responsibility of the GT Manco on the other hand is to develop an understanding of what the business cluster strategic objectives are and then define and allocate resources based on immediate needs.

1.7.1.3 Alignment Gaps

Some of the long questions that were included in the survey gave the respondents the opportunity to identify the alignment gaps that they felt existed in the bank. Numerous alignment gaps were highlighted by the respondents. The following table

discusses the alignment gaps that were identified by the respondents and how the alignment gaps correspond to the alignment factors that are enablers of business strategy and IT strategy alignment.

Table 1: Alignment gaps and corresponding alignment factors

Alignment gap	**Corresponding alignment factor**
Respondents felt that GT is still considered as a division that is meant to provide efficiency and flexibility. The main responsibility of GT is still seen as mainly to support business and follow on the needs of business. Therefore, GT strategy supports business strategy and is driven by the business strategy. The involvement of GT in setting up the business strategy is limited to a supportive and advising level.	Though this alignment gap is not directly reflected in the alignment factors, it does coincide with the alignment factor "Effective Communication/Collaboration/Partnership between business and IT stakeholders".
Respondents indicated that GT was not involved in the development of the business strategy. They indicated that the GT strategy was only developed after the business strategy was developed. This creates a challenge in that the GT decision makers don't get the opportunity to contribute to the business strategy. Once the business strategy has been developed, the GT decision makers define an IT strategy that will enable and support the business strategy.	This alignment gap corresponds to the alignment factor of "Involvement IT decision makers in the formation of business strategy".
Respondents indicated that business does not have proper knowledge of the IT	This alignment gap corresponds to the alignment factor of "Business understands

domain. This normally results in business underestimating the work and effort that is required from IT to meet the business needs. Respondents also indicated that the business lack knowledge on the complexity of IT.	the IT domain".
From the interviews conducted, it was also observed that there was a need to improve the requirements gathering process. GT Respondents indicated that it is sometimes difficult to get clear requirements from the business. They indicated that the problem lies with business in having difficulty with stating the requirements. Respondents highlighted that this was mainly due to a lack of understanding of IT by business.	This alignment gap corresponds to the alignment factor of "Business understands the IT domain".
Some business respondents indicated that IT needed to improve on its knowledge of the business i.e. understanding of the business by IT. They indicated that this would allow IT to understand the business needs fully and be able to contribute to the development of business strategy by advising business decision makers on how IT can enable the business strategy.	This alignment gap corresponds to the alignment factor of "IT understands the business domain".
Respondents indicated that there is one business cluster that has not fully adopted using a centralized IT. The Capital Markets business unit has an internal IT team and also makes use of IT services from GT. This causes a lot of conflict as the internal IT team's strategy may differ	This alignment gap is reflected in the "Centralize IT wherever possible" alignment factor.

from the GT strategy. This alignment gap was also highlighted in the report of the assessment that was done by Oliver Wyman Consultants and McKinsey & Co.	

1.7.1.4 Minimizing alignment gaps – recommendations of respondents

As part of the recommendations of how alignment between business strategy and IT strategy can be attained, the researcher has used Appendix 3 - Teaching Note: Minimizing alignment gaps through Strategic Alignment Model (SAM), to describe how SAM can be used to minimize the alignment gaps that exist in the bank.

The survey questions allowed the respondents to recommend methods that can be put in place to reduce the alignment gap between business strategy and IT strategy.

Respondents identified one ongoing effort that could be used to improve alignment between business strategy and IT strategy. The ongoing effort is the establishment of the DTO teams whose main responsibility is to drive effective collaboration between the business units and GT. The DTO teams also facilitate communication between business executives and IT executives. Respondents also indicated that the DTO teams should not just drive collaboration between the business units and GT, but should also be tasked with developing a clear understanding of the business domains that they deal with. They indicated that if the DTO team understand the business domains, they will be able to guide business decision makers on how to utilize IT in order to deliver on the business strategy.

Respondents noted that the bank needs to have a fully centralized IT. They indicated that the Capital Markets business cluster has its own internal IT team whose IT strategy is different from that of GT. This specific IT team within the Capital Markets business cluster operates in a silo and is not related to GT at all. The respondents indicated that the internal IT team of Capital Markets needs to be incorporated into GT and become an operating team within GT. Respondents also

indicated the benefits of having a centralized IT, which include standardization of architecture, promoting and facilitating reusability, and focusing resources on high value work.

Increased cross-training between business and IT personnel was identified as one of the methods that could improve alignment between business strategy and IT strategy. The respondents indicated that the cross-training needs to be applied at the senior management level, middle management level and junior management level. The aim of the cross-training would be to ensure that business personnel develop a thorough understanding and knowledge of the IT domain and that IT personnel develop an understanding and knowledge of the business domain. Business will be able to better interact with IT and vice versa.

Respondents indicated that another method that could improve alignment between business strategy and IT strategy is a change in the mindset of business and IT staff members in terms of the business-IT working relationship. Respondents noted that often there is an "us-versus-them" attitude that exists amongst business and IT personnel. This needs to change and everyone needs to realize that they all work for one organization. It is important that business and IT act as partners.

Another recommendation that was highlighted as a method that could improve alignment between business strategy and IT strategy is improvement of the level of partnership between business and IT. Respondents indicated that this partnership can be improved by having IT more involved in the business planning and also having business more involved in the IT planning. This will lead to an increase in the amount of collaborative strategy development between business and IT.

Respondents from GT recommended that the CIO should be included in the executive council (board of directors) of the bank. They felt that this would ensure that IT is represented at the highest level of the business strategy formulation. They

indicated that the current executive reporting structure of having the CIO report to the Chief Operations Officer (COO) hinders the accessibility of the Chief Executive Officer (CEO). However, a few respondents from the business clusters had a completely different view to this recommendation. They felt that representation of IT at that highest level of the business strategy formulation would result in IT driving the business strategy.

1.8 Case Study Conclusion

The aim of this case study was to develop a teaching case study of the strategic alignment of business strategy and IT strategy at Nedbank. The objective of the research was to review the measures that the bank has put in place to achieve alignment between business strategy and IT strategy, identify alignment gaps that exist between business strategy and IT strategy, identify alignment factors considered being important towards achieving alignment between business strategy and IT strategy, and recommending how alignment gaps can be minimized through the use of SAM.

Based on the data collected for the research, it was evident that the organization is indeed trying to have the business strategy and IT strategy aligned. However, what was even more evident was the fact that the business strategy was the main driving factor and the IT strategy was just supporting and enabling the business strategy. From the results of the survey, there was no indication that the business strategy supports the IT strategy. Once the business strategy has been developed, GT develops its strategy in such a way that it will be aligned with the business strategy. One of the definitions of strategic alignment covered in the literature review elaborates on the need for a two way support i.e. IT supports business and business supports IT. It is clear that based on those definitions, the business strategy and IT strategy of the bank are not fully aligned as the support only comes from the IT strategy that supports the business strategy. On a different note, some research studies argue that a key success factor for a successful company in a dynamic environment is effective and efficient IT supporting business strategies and

processes. According to this argument, it can be deduced that by having the IT strategy support the business strategy, the bank is still able to achieve some level of alignment. Therefore, it can be concluded that alignment cannot only be achieved if the IT strategy supports the business strategy and the business strategy supports the IT strategy. Alignment can still be achieved if the IT strategy supports the business strategy, even though the business strategy doesn't necessarily support the IT strategy. According to SAM, there are two perspectives that support the notion that either the business strategy or IT strategy can be the driving factor. The Technology Leverage perspective has the business strategy as the driving factor and the Technology Exploitation perspective has the IT strategy as the driving factor. In the case of the bank, it is evident that the alignment model that the organization has adopted leans more towards the technology leverage perspective where business strategy plays a leading role and the IT strategy plays a supporting role.

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SECTION 2: LITERATURE REVIEW

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2.1 Introduction

In today's business world, a lot of organizations are investing heavily in Information Technology (IT) in order to develop a competitive edge over their competitors. Most of the time, organizations fail to get real value from the investments made in IT. This is mainly due to the fact that organizations fail to realize the value brought about by aligning IT strategy with Business strategy. It is through the alignment of IT strategy and Business strategy that organizations are able to realize the value brought about by investing in information technology. An organization that realizes the value of aligning IT strategy and Business strategy is able to develop a competitive advantage over its competitors.

This section is the literature review for the overall research. The research study is a teaching case study of the alignment of business strategy and IT strategy at Nedbank, one of the top four South African banks. The research study also describes how the bank has aligned business and IT strategy to realize value from information technology investments and develop a competitive advantage. The research study also identifies any existing gaps between business and IT strategy in the bank. For any gaps that were identified, the research study has made recommendations as to how the gaps can be minimized using an existing strategic alignment model called Strategic Alignment Model (SAM).

2.2 Strategy

Strategy has always been considered as a key element behind the success of an organization. As a result, strategy is an essential part of management activity. The term strategy has various definitions from various sources. The study will explore two definitions of strategy that are closely related to the context of the study.

According to Johnson and Scholes (2002:10) "Strategy is the direction and scope of an organization over the long term, which achieves advantage for the organization through its configuration of resources within a changing environment and to fulfil stakeholder expectations". According to this definition, it is clear that strategy is long term and it is meant to give an organization an advantage. According to Thompson,

Strickland and Gamble (2005:3) “Strategy is a game plan indicating the choices a manager needs to make, for example about how to attract and meet customer needs, how to compete successfully, how to grow the organization, how to manage each of the organizational architecture and develop needed dynamic capabilities, and how to achieve performance target by implementing strategy successfully”. This definition focuses more on management’s role in the successful implementation of strategy. Hoskisson, Hitt, and Ireland argue that “strategy is an action plan designed to move an organization toward achievement of its vision. The mission of the firm is focused on the markets it serves and the products (either goods or services) it provides”. What seems to be common between the three definitions of strategy mentioned above is the fact that strategy aims at improving the performance of an organization by improving its position in relation to its competitors operating in the same environment. Strategy gives an organization a competitive advantage over its competitors.

There are different types of strategies that organizations can pursue. This research will only focus on two strategies, namely business strategy and IT strategy. The research will also explore the alignment of the two strategies.

2.3 Business Strategy

According to Louw (2010:19) “Business strategy is concerned with how the organization competes and attains a competitive advantage in each and every area of business, i.e. through the products or services developed for markets, and the creation of value for customers”. According to the definition, it is clear that the business strategy describes how a business intends to succeed in the market place in which it operates and also have a competitive edge over competitors in the same market place. Some of the key questions that a business strategy needs to address include the following:

- What markets should the business compete in?
- What is the business’s sustainable competitive advantage?
- What value does the business add? Where? Why? How?

- What capabilities and competencies does the business need?
- Who are the customers of the business?
- How can the business be innovative?

In order to have a successful business strategy, an organization needs to adopt two perspectives, namely the Inside-Out Perspective and the Outside-In Perspective. According to Louw (2010:23) “Strategic leaders adopting an inside-out perspective believe that strategies should be developed around an organization’s resources and capabilities to take advantage of the opportunities in the external environment”. The organization needs to identify its distinctive capabilities and surround them with reproducible capabilities which will enable it to sell its distinctive capabilities in the market place. The inside-out perspective adopts a framework called the Resources-based view (RBV). RBV places more emphasis on the internal capabilities of the organization. These capabilities are used in the formulation of strategy to achieve a sustainable competitive advantage in the market in which the organization operates.

Louw (2010:27) state that “Strategic leaders adopting an outside-in perspective believe that strategies should be designed and developed as determined by the market needs and an understanding of and response to the external environment”. It is from this perspective that the organization can identify external opportunities in the external environment and define its competitive industry, and then adapt its capabilities and resources to take advantage of these external opportunities. The outside-in perspective places more emphasis on the external environment. The organization develops internal resources and capabilities to implement strategies as dictated by the external environment.

In an organization that has multiple business units, it is important for each business unit to define its own business strategy. The strategy can be used to define and set the future direction that the business unit intends to take. Management of the business unit is responsible for orchestrating the business unit strategy and ensuring that the strategy is understood by all employees of the business unit.

2.3.1 Business Level Strategies

Nadakumar, Ghobadian and O'regan (2011:222) argue that "business-level strategy is concerned with domain navigation, that is to say how the firm competes effectively in an industry". In order to satisfy its customer needs or preferences, an organization needs to ensure that it has the right core competencies. This can be achieved through business levels strategies. According to Fiegener (2011:25) "business level strategic controls are the processes by which business unit managers adjust their strategies over time in order to pursue the larger corporate objectives". Jesselyn Co (2010:247) states that business level strategies specify the actions taken to gain a competitive edge and provide customer satisfaction. This research explores five generic business level strategies that organizations can utilize to provide value to customers and achieve a competitive advantage. The five generic business level strategies explored are a low cost provider strategy, a best cost provider strategy, a broad differentiation strategy, a focused strategy based on low cost, and a focused strategy based on differentiation.

2.3.1.1 Low Cost Provider Strategy

According to Jesselyn Co (2010:249) "a low cost provider strategy seeks to achieve lower price than competitors whilst trying to maintain similar value product or service to that offered by competitors". With this strategy, a firm is able to attract price sensitive customers in great numbers to increase profits. A firm also aims to be the lowest cost provider and producer in the industry. Sumer and Bayraktar (2012:105) state that "a cost leadership strategy aims for a firm to be a low cost producer in the industry. Companies following this strategy place emphasis on cost reductions in every activity of the value chain". It is evident from the above statements that the low cost provider strategy places emphasis on cutting costs in order to be able to offer low prices for services and products. Sumer and Bayraktar (2012:110) argue that "a cost leader enterprise puts products with an acceptable quality and limited standard features on the market in order to gain competitive advantage and to maximize its market share". This shows that quality is also an important part of the

low cost provider strategy. This means that a firm cannot compromise on quality just for the sake of keeping costs low. Datta (2009:9) highlights some of the prior conditions necessary for a low cost provider strategy. Datta (2009:9) argues that "a low overall cost position often requires a high relative market share or other advantages, such as favourable access to raw materials".

2.3.1.2 Differentiation Strategy

According to Jesselyn Co (2010:249) "a differentiation strategy seeks to provide products or services unique or different from those of competitors in terms of dimensions widely valued by buyers". Porter (1990:37) argues that "in a differentiation strategy, a firm seeks to be unique in its industry along some dimensions that are widely valued by buyers. It selects one or more attributes that many buyers in an industry perceive as important and uniquely positions itself to meet those needs. It is rewarded for its uniqueness with a premium price". The above statements show that in order for this strategy to be a success, the firm has to study the customer's behaviour and needs carefully in order to learn what is important to the customer, has value to the customer, and what the customer is willing to pay for. It is also evident that the aim of a differentiation strategy is to be unique in a way that adds value to a customer and can be sustained. According to Dickson and Ginter (1987:4) a differentiated product is one that "is perceived by the customer to differ from its competition on any physical or nonphysical product characteristic including price". This statement shows that cost can be used as a differentiator. In such an instance, the basis of differentiation is not higher quality, but lower price.

Datta (2009:16) argues that "the foundation of a differentiation strategy generally is to provide superior quality compared to the competition". According to Spencer, Joiner and Salmon (2009:85) "many manufacturing firms view a strategy of differentiation as a more important and distinct means to achieve a competitive advantage". Stalk et al (1992:57) claim that "A capability has differentiating competitive value when it allows a firm to perform an activity that delivers value to

customers in ways rivals cannot". It is evident that a differentiation strategy provides an organization with a competitive edge over its competitors. Although one would assume that having a competitive edge would result in a firm achieving a higher market share than its competitors, Porter suggests that differentiation and a higher market share do not go together. Porter (1980:38) argues that "achieving differentiation may sometimes preclude gaining a high market share. It often requires a perception of exclusivity, which is incompatible with high market share". Porter states that this is so because differentiation is usually costly.

According to Porter (1980:138) "Buyers seldom pay for value they don't perceive, no matter how real the unique extras may be. Thus, the price premium commanded by a differentiation strategy reflects the value actually delivered to the buyer and the value perceived by the buyer".

2.3.1.3 Best Cost Provider Strategy

According to Datta (2009:14) "a best cost provider strategy is a hybrid version that adopts a middle ground between low cost and differentiation". Datta's definition indicates that the best cost provider strategy focuses on providing customers with the best value for their money and ensuring that it delivers superior value to its customers by satisfying the customer's expectations on a product's key attributes and also beating their expectations on price. Haug and Krabbenhoft (2005:5) also indicate that "a best cost provider strategy is a combination of low cost and differentiation". As indicated by this statement, best cost provider strategies are considered to be a hybrid because they seek to achieve differentiation and a price lower than that of competitors. Simply put, a firm that pursues the best cost provider strategy offers customers a product of highest quality at the lowest price. If a firm incorporates attractive attributes which are perceived as a differentiator, at a lower cost than its competitors, it is able to achieve a best cost status. Resources and capabilities play a pivotal role in enabling a firm to be a best cost provider. With the right resources and capabilities, a firm is able to achieve good to excellent quality at

a lower cost than competitors, incorporate appealing features at a lower cost than competitors, and match product performance at a lower cost than competitors.

There are risks associated with the best cost provider strategy. One of the biggest risks of this strategy is that a firm can get caught in between the strategies of firms using differentiation and low cost strategies. Firms that use low cost strategies attract customers with the appeal of a lower price. On the other hand, firms that adopt a differentiation strategy attract customers with the appeal of a product with better attributes. Therefore, a firm using the best cost provider strategy must be able to offer customers a product with better attributes in order to justify a price higher than that of a low cost provider. Likewise, it has to provide its high quality product at a lower cost than those of competing high quality. Datta (2009:14) makes a good example of how Toyota achieved this. He indicates that Toyota introduced a high quality car when they launched the Lexus. Toyota then went on to offer customer value by pricing the Lexus well below the German luxury cars.

2.3.1.4 Focused Low Cost Strategy

Lodha and Nahar (2011:315) state that in order to generate a sustainable competitive advantage; a firm must adopt a strategy that establishes a unique market position that allows it access to particular customer segments. According to Sumer and Bayraktar (2012:106) “A focus strategy is aimed at a segment of a market within which a firm develops uniquely low-cost or well-specified products for the market”. Similarly Sumer and Bayraktar (2012:112) also state that “a focused low cost strategy is based on competing in a small segment of the market with low costs and prices”. Based on this definition a focused low cost strategy is based on a low cost and places emphasis on a narrow customer segment. The strategy aims to achieve lower costs than competitors in serving a specific market niche. The target market segment for this strategy is the customers that are very price sensitive. Sumer and Bayraktar (2012:106) also argue that “the focus dimension measures the degree of a firm’s attention on a specific type customer, product or geographic

locale". There are several conditions that support a focused low cost strategy. Some of them include the following:

- The company has not yet developed the capabilities to go after a wider part of the market.
- Big players in the industry don't perceive the niche market as vital to their success.
- Competitors are not attempting to specialize in the same segment

All of the above conditions ensure that a firm remains comfortable within its market with no or very little competition. Based on the above conditions Sumer and Bayraktar (2012:107) suggest that a focused low cost strategy can be followed only by small companies. Wright, Pringle and Kroll (1992) attest to this as well by indicating that for small firms, they suggest a strategy of focus low cost.

2.3.1.5 Focused Differentiation Strategy

According to Jesselyn Co (2010:256) "a focused differentiation strategy aims at securing a competitive advantage by offering niche members a product they perceive as well-suited to their own unique tastes and preferences". Similarly Sumer and Bayraktar (2012:112) state that "in a focused differentiation strategy, firms produce products and provide services suitable to the needs and tastes of a narrow customer population". It is evident from the above statements that a focused differentiation strategy places emphasis on a narrow customer segment and competes through differentiating product features. The market segment of this strategy is not price sensitive at all. It consists of customers willing to pay a premium for the best products available. The following conditions make this strategy an attractive option:

- The niche market is big enough to allow the firm to make a profit and also offers good growth potential.
- It is costly and difficult for other competitors to put capabilities in place that will allow them to enter the same niche market.

- The firm's capabilities and resources allow it to compete effectively against any challengers in the target niche market.

Mosakowski (1993:822) argues that "when firms focus, they possess know-how and other assets that are unique or specialized to its product market segments". Similarly as stated in the above conditions, Mosakowski (1993:822) indicates that "the fact that few firms develop multiple focus strategy is consistent with the assertion that the focus strategy often requires highly specialized resources and therefore the existence of the focus strategy may indicate resources that are unique or highly specialized". To also support the conditions stated above, Mosakowski (1993:822) states that "when a firm first adopts a focus strategy, its performance may be lower than the performance of other firms because it will incur the costs of developing the unique or specialized resources involved. Subsequent to this adoption period, however, the focused firm will generally outperform other firms because of the returns accruing to these resources". This statement highlights the fact that it is costly for a firm to develop capabilities that will allow it to enter a specific market niche. The cost involved therefore makes it difficult for competitors to enter the same market niche.

2.4 IT Strategy

According to Rathnam (2005:1), "In recent years, information technology (IT) has become a critical tool for the execution of business strategy and a driver of business strategy". Initially when business units utilized IT, the IT support and development of a business unit resided within that business unit. This decentralized approach was taken because the use of IT was directed towards the specialized needs of the business unit. As the use of IT increased throughout the business, there emerged a need for a centralized approach. A central IT department would then be developed to cater for the different IT needs of the different departments. Weill and Broadbent (1998:6) define information technology as "a firm's total investment in computing and communications technology. This includes hardware, software, telecommunications, the myriad of devices for collecting and representing data (such as supermarket point-of-sale and bank automatic teller machines), all electronically stored data, and the people dedicated to providing these services."

According to Savin (2004:293) “Generally, sound IT strategic plans contain at least six component or elements. They include: application systems component, application development component, infrastructure component, maintenance component, operations component and security component. These components need to encompass all IT assets and resources and, together, point in a direction that is consistent with the overall mission of the business enterprise”. The function of IT in a firm is to be an enabling resource to help the business accomplish its goals and objectives. This is supported by Zainon and Salleh (2011:7248) where they state that “in the current economic climate, people have realized the importance of IT in altering and improving the way businesses operate”. It is important for firms to have an IT strategy that supports business goals and objectives. This will enable firms to realize their return on investments made in IT. This is highlighted by Jorfi, Nor and Najjar (2011:17) where they argue that “IT strategy that supports business goals has proved to enhance organizational efficacy and get the most out of return on investment”.

According to Oakleigh Consulting (2011) “IT strategy is a long term plan for achieving a goal, set in the context of a rapidly changing technology environment. For any IT strategy to be effective it must have measurable links to a business strategy – and it is here that many IT strategies fail”. The above definition highlights the importance of an IT strategy being linked with a business strategy. It is pointless to have an IT strategy that does not support business goals in any way. Therefore, in order for the business goals and objectives to be supported by the IT strategy, it is important to have IT representatives participate in business strategy planning sessions.

2.5 Technology Infrastructure

As part of an overall IT strategy, an organization needs to have the right technology infrastructure in place in order to support business technology solutions. Smith, Mckeen and Singh (2007:56) state that “leading companies have a framework for

making targeted investments in their IT infrastructure that will further their overall strategic direction". Technology infrastructure is a key enabler of business initiatives that require technology solutions. Infrastructure is considered a key enabler of business because it runs all the applications that process transactions in an organization, and handles and stores the organization's data. Weill, Subramani and Broadbent (2002:64) support this by stating that "the evidence from leading enterprises indicates that implementing different types of electronically based business initiatives requires high-capability infrastructure". Weill et al (2002:64) also highlight that "infrastructure investments usually must be made before investments in business applications because doing both at the same time results in infrastructure fragmentation".

IT infrastructure is a very important component of an organization. Not only should an organization have a good technology infrastructure, but the infrastructure should be flexible and robust enough to cater for the ever changing needs of a business. Chung, Rainer and Lewis (2003:153) state that "IT infrastructure flexibility is now being viewed as an organizational core competency that is necessary for organizations to survive and prosper in rapidly-changing, competitive, business environments". It is evident that as business requirements and needs change and evolve, the IT infrastructure that is in place needs to evolve as well. A flexible IT infrastructure within an organization can be used as a source of sustainable competitive advantage for the organization. Weill (1993:550) states the importance of flexibility of an IT infrastructure in order to be able to handle increased customer demands without increased costs. Byrd and Turner (2000:172) defined IT infrastructure flexibility as "the ability to easily and readily diffuse or support a wide variety of hardware, software, communications technologies, data, core applications, skills and competencies, commitments, and values within the technical physical base and the human component of the existing IT infrastructure". Fink and Neumann (2009:90) argue that "business, public and governmental organizations confronted with time and other pressures must adjust their strategies, but frequent change cannot be accomplished unless the IT infrastructure is able to accommodate it in an effective and efficient manner". An organization that has a flexible IT infrastructure can therefore be able to accommodate business strategy as it changes. This gives

the organization a competitive advantage as the organization is able to change strategies and implement them easily. Without a flexible IT infrastructure, the organization would not be able to implement new or change strategies within a short space of time.

Duncan (1995:40) described IT infrastructure flexibility as having three main characteristics, which are namely connectivity, compatibility, and modularity. According to Duncan (1995:40) “compatibility is the ability to share any type of information across any technology component throughout the organization”. Tapscott and Caston (1993:86) Stated that compatibility helps extend organizational boundaries, and makes data, knowledge and information readily available in the organization. Duncan (1995:40) defines connectivity as “the ability of any technology component to communicate with any of the other components inside and outside of the organizational environment”. Tapscott and Caston (1993:86) emphasized that IT connectivity enables seamless and transparent organizations that are independent of time and space. Lastly, Duncan (1995:40) defines modularity as “the ability to easily reconfigure (add, modify, or remove) technology components”.

2.6 Information Systems Strategy

According to Chen, Mocker and Preston (2010:234) “the information systems of an organization consist of the information technology infrastructure, data, application systems, and personnel that employ IT to deliver information and communications services in an organization”. Sabherwal and Chan (2001:11) state that the impact of information systems and technology on business performance has increased noticeably during the past couple of years. It is therefore important for organizations to have a good information systems strategy in place in order to achieve a competitive advantage over its competitors. Daniels (1998:171) states that information systems are used to configure the organization appropriately and to ensure communication between the various components. He also mentions that information systems are then used to ensure effective communication within the extended value chain involving suppliers and the distribution network. Chen et al

(2010:237) defines IS strategy as “the organizational perspective on the investment in, deployment, use, and management of information systems”.

Information systems strategy is not only important to large organizations, but also to SMEs (Small to Medium Enterprises). Investing in systems is a costly exercise that initially requires a lot of money to be invested in systems that provide the organization with a competitive edge. Large organizations have adequate finance to invest heavily in systems compared to the smaller and medium organizations. Wynn (2009:78) states that “Many small and medium-sized enterprises are now at a crossroads in terms of information systems (IS) strategy. Their dilemma is whether to continue to limit investment to piecemeal additional systems and infrastructures as their business extends, but still suffer the problems of non-integration, lack of consistent management information and restricted exploitation of e-business opportunities”.

Chen et al (2010:240) identify the following three conceptions of IS strategy:

1) IS strategy as the use of IS to support business strategy.
2) IS strategy as the master plan of the IS function
3) IS strategy as the shared view of the IS role within the organization

The first conception is concerned more with using IS to help the business gain and sustain a competitive advantage. It also focuses on using IS to support the business goals and objectives. Atkins (1994:125) suggests that the initiation of an IS strategy must be linked with an established business strategy. This conception highlights the importance of ensuring that IS strategy supports the business strategy. It is therefore important to have managers that drive the IS strategy of an organization involved in business strategy sessions with managers that are responsible for driving business strategies of the different divisions in an organization. Preston and Karahanna (2009:6) argue that instead of only just supporting the business strategy, IS strategy should be used to potentially push the

business strategy. Earl MJ (1989:84) articulates that as much as IS strategy can be led by business strategy, IS strategy can also be used to question the business strategy. According to Chen et al (2010:240), because IS strategy is a derivation of the business strategy, they argue that this conception of IS strategy is business centric.

The second conception places more emphasis on the strategy of running an IS function in an organization effectively and efficiently. Mintzberg (1987:13) argues that in the second conception, IS strategy is simply a plan aimed at identifying the required IS assets, monetary resources, and technologies; and then allocating these existing IS assets in the most efficient way. Orlikowski and Iacono (2001:127) argue that "IS strategy is IS-Centric because IS strategy is a long term plan for an array of the IS related artefacts within the organization". Earl (1993:14) argues that in this second conception "IS strategy is used as a tool for the effective management of the IS function to best allocate and utilize IS resource". Therefore, IS strategy can be examined as independent of the business strategy of an organization. According to Ragu-Nathan, Tu and Shi (2001:277) the IS function "provides services to users within an organization, who, therefore may be regarded as customers. In addition, an IS function requires its own strategy directed toward developing an end product which is sought by users". It is clear that an IS function needs it own strategy that is separate from the strategies of the other business divisions.

According to Mintzberg (1987:15) the third conception views IS strategy as "an organizational perspective that guides future IS related business activities and decisions". This conception is considered to be more organization-centric. It is meant to ensure that all members of the organization are thinking and heading in the same direction. It considers the roles of IS within an organization as perceived by top management. This conception follows the notion that IS strategy is not dependent on a specific business strategy.

2.7 Strategic Alignment

For many organizations, it is important to be able to answer the questions of how to strategically align IT strategy and business strategy. Smaczny (2001:797) argues that "the concept of strategic alignment stems from the fact that many companies discovered they were developing information systems that did not support their business strategies. Development projects were often given priorities according to their technical imperatives rather than business necessities". There is a lot of existing literature in the field of Strategic Alignment. As a result, there are various definitions of this concept. However, the one thing that they all seem to have in common is the notion of using information technology to support business goals and objectives. Chung et al (2003:153) defines Strategic Alignment as "the extent to which the IT mission, objectives, and plans support, and are supported by, the organization's mission, objectives, and plans". It is through this alignment that an integrated organization is created whereby the focus of every function, unit and person is on the competitiveness of the organization. The definition of strategic alignment by Grembergen (2004:7) is that "strategic alignment between IT and Business is the process and goal of achieving competitive advantage through developing and sustaining a symbiotic relationship between business and IT". This definition highlights the importance of an establishment of a relationship between Business and IT. Lastly, Reich and Benbasat (2000:82) argue that strategic alignment refers to "the degree to which the IT mission, objectives and plans support and are supported by the business mission, objectives and plans". Although all these definitions slightly differ from each other, they all seem to agree on the one end goal which is that of achieving and sustaining strategic and competitive advantage. Grembergen (2004:99) also articulates that "strategic alignment focuses on the activities that management performs to achieve cohesive goals across the Information Technology (IT) and other functional organizations (e.g. finance, marketing, H/R, R&D, manufacturing). Therefore alignment addresses both how IT is in harmony with the business, and how the business should, or could, be in harmony with IT".

Organizations are able to realize the value of investments made in IT if the alignment of business strategy and IT strategy is achieved. In order to increase their effectiveness and efficiency, organizations are investing heavily in information technology. It is through these investments in IT that firms are able to develop a sustainable competitive advantage. Sabherwal and Chan (2001:13) state that there is the belief that alignment can result in enhanced organizational performance. Henderson and Venkatraman (1999:475) argue that "alignment is a desired state for organizations investing in IT that is not always achieved, as it often entails a radical change in the ways managers consider information technology". Daneshvar and Ramesh (2010:1) argue that "each organization is aware of the special effects, benefits and implication of information technology (IT) in business performance and also its capacity in building sustainable competitive advantages". It is essential that Business strategy and IT strategy are not treated as two unrelated strategies in an organization. Therefore, an IT strategy needs to be developed based on the business needs, objectives and goals. That is why it is important for IT executives to be included in the business strategy sessions held by business executives of the divisions of the organization. Likewise, it is important for business managers to be involved in IT strategy planning sessions so that they fully understand the goals of IT. Kanter and Cale (1998:1) argue that "as information technology and the information systems function become increasingly embedded in the basic fabric of business activities, the need for alignment between IS and corporate goals has and will continue to increase". Loukis, Sapounas and Milionis (2009:85) state that "the whole process followed for achieving a bilateral relationship between the IT Plan and the Business/Strategy Plan increases IT managers' business awareness and knowledge on the one hand, and executives' awareness and knowledge about the capabilities and opportunities offered by IT on the other; also it builds mutual understanding and communication between executives and IT managers and facilitates a fruitful knowledge sharing among them, which can produce IT-based competitive advantages".

Johnson and Lederer (2010:138) expressed that "observers have suggested that organizations benefit from their IT only when alignment exists between the firm's business strategy and IT strategy. IT resources need to target areas critical to the

success of the organization". It is evident that if there is no proper alignment between business strategy and IT strategy, the organization will not fully realize return on investments made in IT. If IT resources are not targeted at the right areas in the organization, the organization will not get any real value from IT. Based on this, it is therefore very important that a mutual understanding exists between senior business managers and senior IT managers. Ensley and Pearce (2001:151) define mutual understanding as "a degree of agreement between individuals on a topic". Johnson and Lederer (2010:138) state that "mutual understanding through team cohesiveness leads to better decision-making, and therefore managers with stronger agreement about IT management issues would have stronger agreement in developing a high-quality set of business and IT plans".

Silva, Figueroa and Reinhart (2007:234) introduce three conceptions of IT alignment. The three conceptions are:

- Managerial
- Emergent
- Critical

According to Silva et al (2007:234) the first conception which they call managerial "consists of deeming strategic alignment in terms of an ideal model to which managers should strive to achieve. This managerial conception views strategic alignment as a means for firms to increase their profitability". Silva et al (2007:235) argue that from the emergent perspective, "strategic alignment cannot occur as an automatic response to senior management plans and commands". Comparing the emergent conception to the managerial conception, it is evident that the managerial conception deems strategic alignment as originating from top down, while the emergent conception deems it as originating from the bottom to the top. Silva et al (2007:235) state that the one thing the two conceptions have in common is that they both keep the aim of strategic alignment as increasing profitability and efficiency. Silva et al (2007:235) iterate that the third conception, which is called critical, considers "strategic alignment as a hegemonic discourse aimed at perpetuating the dominant ideology of capitalism". Silva et al (2007:236) argue that according the

critical conception, “strategic alignment does not focus on its domain or in its implementation, but rather focuses on its objectives.

Another important issue on strategic alignment is the difference between the way strategic alignment is perceived by small to medium enterprises and the way it is perceived by large organizations. Chan, Sabherwal and Thatcher (2006:30) observed that the size of an organization affects alignment. They explained that small and medium firms are structured around functions and use a centralized structure to coordinate subunits. Chan et al (2006:30) state that “in large organizations decentralized structures make coordination more difficult and therefore more mechanisms to promote strategic alignment are needed”. Gutierrez, Orozco and Serrano (2009:198) state that “It can be said, thus, that large organizations exhibit some differences in terms of resources and expertise available in comparison to those found in small and medium enterprises. These differences, in turn, may have an impact on the way small and medium enterprises should approach alignment between IT and business strategies”.

2.8 Business strategy and IT strategy alignment factors

Whilst organizations have taken steps to align IT strategy and business strategy, there continues to be several “inhibitors” to effective alignment of IT strategy and business strategy. A number of existing literature studies has identified numerous enablers and inhibitors. This section of the research highlights specific factors that contribute to the strategic alignment of business strategy and IT strategy. According to Luftman, Papp and Brier (1999) the top six enablers and inhibitors include the following:

Enablers

- Senior executive support for IT
- IT involved in strategy development
- IT understands the business
- Business-IT partnership

- Well-prioritized IT projects
- IT demonstrates leadership

Inhibitors

- Senior executives do not support IT
- IT/business lack close relationships
- IT does not understand business
- IT fails to meet commitments
- IT does not prioritize well
- IT management lacks leadership

In their study, Chan, Sabhelwahl, and Thatcher (2006) identified the following alignment factors:

- Shared domain knowledge
- Prior Information Systems (IS) success
- Organizational size

In another study, Chan (2002) identified the following alignment factors:

- CEO and CIO have a strong working relationship
- Business and IS plans are closely linked
- IS personnel participate in business planning
- IS projects have business sponsors
- IS personnel make lateral short- or long-term transfers into business partner areas
- Incentive/compensation bonus schemes exist

In a different study that was conducted by Huang and Hu (2007), the following alignment factors were identified:

- Integrating IT planning with business planning
- Maintaining effective communication channels
- Developing strong relationships between IT and business
- Institutionalizing the culture of alignment

Kearns and Lederer (2003) identified the following alignment factors:

- Information intensity of the value chain
- The CIO participates in business planning
- The CEO participates in IT planning
- The IT plan reflects the business plan

Teo and Ang (1999) identified the following alignment factors:

- Top management is committed to the strategic use of IT
- IS management is knowledgeable about business
- Top management has confidence in the IS department
- The IS department provides efficient and reliable services to user departments
- There is frequent communication between user and IS department
- The IS staff are able to keep up with advances in IT
- Business and IS management work together in partnership in prioritizing applications development
- Business goals and objectives are made known to IS management
- The IS department is responsive to user needs
- Top management is knowledgeable about IT
- The IS department often comes up with creative ideas on how to use IT strategically
- The corporate business plan is made available to IS management

Reich and Benbasat (2000) also identified the following alignment factors:

- Shared domain knowledge
- Communication between business and IT
- executives
- Connections between business and IT planning
- Successful IT history

Wyman Consultants and McKinsey & Co (2009) report identified the following alignment factor as an important enabler of business strategy and IT strategy alignment:

- Centralize IT wherever possible

2.9 Strategic Alignment Model

Henderson and Venkatraman (1991:73) introduced a strategic alignment model (SAM) which they developed in response to rapidly changing business environments. Henderson and Venkatraman (1991:73) define strategic alignment as "a concept that replaces a traditional functional linkage model of IT planning with one that requires a highly integrated strategic management process". Avison, Jones, Powell and Wilson (2004:231) state that "SAM draws a distinction between the external perspective of IT (IT Strategy) and the internal focus of IT (IT infrastructure and processes). This recognizes the potential of IT to both support and shape business policy. It also elevates IT strategy from the traditional role of IT as solely an internal support mechanism". Smaczny (2001:798) argues that "SAM is based on the relationship between strategic fit and functional integration". Weill and Broadbent (1998:8) build on top of SAM, a theory recommending how technology infrastructure investments should be made in firms to support business strategies. Sauer and Yetton (1997:53) suggest that "IT needs to become part of business rather than be treated as something 'out there' that needs to be passively aligned with the business. Success will come to those who make IT managers an integral part of defining business opportunities and not simply the builders of other managers' solutions".

According to SAM, strategic alignment can be achieved if business strategy, IT strategy, business infrastructure and processes, and IT infrastructure and processes are all in harmony. If all of these four domains are integrated, then strategic alignment will be achieved.

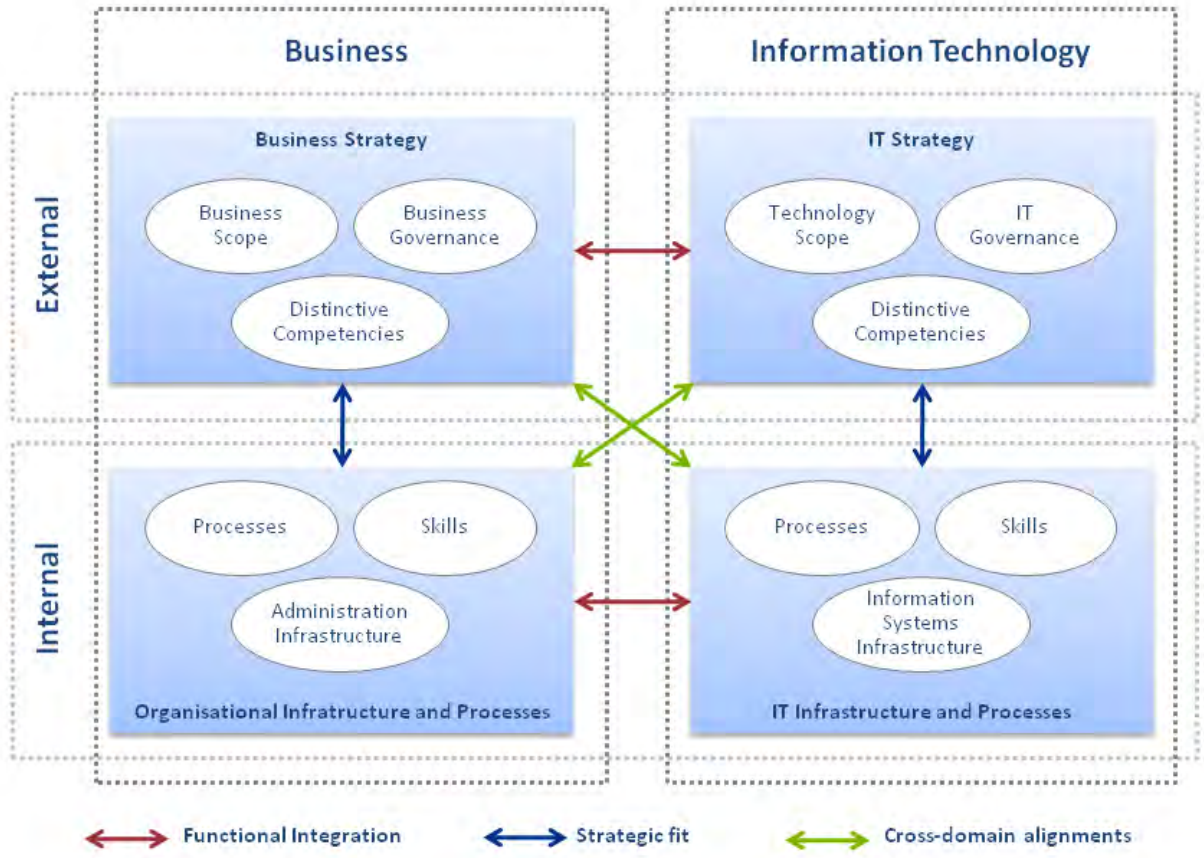

Figure 17: Strategic Alignment Model (Henderson and Venkatraman, 1991:73)

SAM illustrates that strategic alignment can be achieved if the four domains (Business strategy, IT strategy, Organizational infrastructure and processes, and IT infrastructure and processes) are not treated in isolation. Integration and harmonization of all the four domains will lead to a firm achieving strategic alignment. Avison et al (2004:231) emphasizes that "the underlying premise of the model is that change cannot happen in one domain without impacting on at least two of the remaining three domains in some way".

2.10 Conclusion

This literature review has explored business strategy, IT strategy and the strategic alignment of these two strategies. Different views on the strategic alignment

between IT strategy and business strategy were also explored. The importance of the role played by IT in an organization and how IT enables firms to develop a competitive advantage was also explored in this literature review. The literature review illustrated how the alignment of business strategy and IT strategy allows organizations realize the return on investments made on IT.

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SECTION 3: RESEARCH METHODOLOGY

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3.1 Introduction

This chapter describes the research methodology chosen to accomplish the research goals that were set as part of the research. It is in this section that the researcher states the research aim and also explains the research paradigm. The chapter also covers the data collection method used and the data analysis method used. The research participants are also described in this chapter.

3.2 Research Aims and Objectives

The aim of the research is to: "Develop a Teaching Case Study of the Strategic Alignment of Business Strategy and Information Technology Strategy at Nedbank". The objective of the research is to accomplish three individual goals with respect to the strategic alignment of business strategy and IT strategy in Nedbank.

Goal 1: Review the measures that the bank has put in place in order to achieve alignment between business strategy and IT strategy.

Goal 2: Identify alignment gaps that exist between business strategy and IT strategy in the bank. If the gaps exist, the research study will explore why alignment gaps exist between the business strategy and IT strategy in the bank.

Goal 3: Suggest methods which can be used to minimize the identified alignment gaps. Particular attention will be placed on the use of the Strategic Alignment Model (SAM) as a tool for achieving alignment between business strategy and IT strategy.

3.3 Research Paradigm

The research study adopts a paradigm of post positivism with an ontological view of critical realism. According to Guba and Lincoln (1994:110) "reality must be subjected to the widest possible critical examination to facilitate apprehending as closely as possible (but never perfectly)". The research critically examines the known assumed reality and then proceeds to build onto this known assumed reality. The research study adopts an epistemology of a modified dualist/objectivist

approach, which according to Guba and Lincoln (1994:110) determines if the research findings fit with pre-existing knowledge. The research adopts a methodology of a modified experimental/manipulative approach. Guba and Lincoln (1994:110) state that with this methodology, "An inquiry is done in more natural settings, collecting more situational information, and reintroducing discovery as an element in inquiry, and, in the social sciences particularly, soliciting emic view-points to assist in determining the meanings and purposes that people ascribe to their actions". The selected paradigm will be used for the following reasons:

- The participants will be the main source of data as they share their views and experiences.
- The sampling of the participants is planned and purposive because the participants are selected as they have "lived" the experience under study and have knowledge around the area under study.
- The use of existing literature on the subject of strategic alignment of IT strategy and business strategy.

3.4 Research Method: Teaching Case Study

The research paper for this research under study is presented in the form of a teaching case study. According to Yin (1994:13) "A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident". Babbie and Mouton (2001:273) identify that a case study design is appropriate when the researcher is interested in understanding a clearly delineated entity. Neuman (2003) suggests that the logic of a case study is therefore analytic rather than enumerative induction. Gray (2004:130) clarifies that case studies may be used to explore subjects where relationships may be ambiguous or uncertain but also attempt to attribute casual relationships and not just describe a situation. Gray (2004:132) also highlights that a case study is particularly valuable when a researcher is attempting to understand the relationship between a phenomenon and the context in which it occurred. Riege (2003:76) indicates that the primary objective of a case study research is to develop and construct a theory by following a semi-structured process which requires a high level prior theory preparation.

3.5 Method of Data Collection

According to Yin (1994), evidence for case studies can come from the following six sources: direct observation, interviews, records, documents, physical artefacts and participant observation. Yin (1994) suggested using multiple sources of evidence as a way of ensuring construct validity. Not all of the sources need be used in every case study Yin (1994). For the purposes of this research, only two sources were used, namely documents and interviews. The researcher interviewed individuals from the IT division and different business clusters supported by the IT division. The researcher also accessed documentation that was produced by the various executives in the bank. Section 3.4.1 and 3.4.2 provide more detail on how the interviews were conducted and the type of documentation that was used.

3.5.1 Documents

Documentation used in the research comprised of strategy documentation of the bank's IT division. The strategy documentation consists of white papers that were formulated during the IT division's Strategy Improvement Programme (SIP). The SIP initiative is aimed at aggressively co-coordinating, driving and tracking the execution of strategic improvements, with focus on ensuring a step change in service delivery, service productivity and architectural advancement. The programme was established as a centre of competence within the bank's IT division regarding strategic productivity improvements. In order to find the relevant documents that objectively assist in achieving the aim and goals of the research, a purposive sample of documentation was selected from the IT division's SIP initiative documentation.

3.5.2 Interviews

A questionnaire was formulated which was used during the interview sessions with the selected population. According to Zikmund, Babin, and Carr (2009:387) "A population (universe) is any complete group of entities that share some common set of characteristics". The questionnaire was structured in such a way that it allowed the researcher to obtain information that would assist in achieving the aim and goals of the research. The research population is the bank's business cluster managers and IT managers located at the bank's head office. All managers from local branches and offices, and provincial branches and offices were excluded from the survey due to accessibility. The population size consists of 53 business cluster

managers and 34 IT managers. Zikmund et al (2009:387) states that "A sample is a subset, or some part, of a larger population. The purpose of sampling is to estimate an unknown characteristic of a population". The interview sample consisted of 13 business cluster managers and 13 IT managers that were picked from the population. The bank consists of 6 business clusters and a Group Technology (GT) cluster. The sample of managers that provided information on the business strategy was taken from the following business clusters in the bank:

Table 2: Participant business clusters in the research

Business Cluster Name	**Number of participants**	**Role of participants**
Retail banking	2	Managers
Business banking	2	Managers
Corporate banking	2	Managers
Capital markets	2	Managers
Wealth management	2	Managers
Africa banking	2	Managers
Group strategy	1	Executive

The sample of managers that provided information on the IT strategy was taken from the following GT clusters:

Table 3: Participant GT clusters in the research

Group Technology Cluster Name	**Number of participants**	**Role of participants**
Divisional Technology Officer (DTO)	2	Managers

Divisional Technology Officer (DTO)	2	Executives
Systems Development (SD)	2	Managers
Systems Development (SD)	2	Executives
Group Technology Strategy	2	Managers
Group Technology Architecture	2	Managers
Group Technology chief information officer	1	Chief Information Officer (CIO)

The sample was chosen using purposive sampling given that all respondents were from specific target groups who hold knowledge on the subject matter. There were cases where snowball sampling was used. The questionnaire used during the interview consisted on coded questions and long questions. The purpose of the long questions was to get a view of each of the respondents that were interviewed. The purpose of the coded questions was to get a quantitative indication of how respondents feel about various issues covered in the questionnaire. The interviews assist the researcher to make a thorough investigation into the bank in order to have a better understanding of how alignment between IT strategy and business strategy is achieved.

3.6 Data Analysis

According to Yin (1994:102), “Data analysis consists of examining, categorizing, tabulating, or otherwise recombining the evidence to address the initial propositions of a study”. Yin (1994:102) further stipulates that “a researcher should start with a general analytic strategy in order to yield priorities for what to analyze and why, by

using any of four dominant analytic techniques namely: pattern-matching, explanation-building, time-series analysis and program logic models".

The data collected from the interviews and the company documents was analyzed by using the general analytic strategy as proposed by Yin (1994). The analytic strategy begins with a descriptive approach to describe the measures that the bank has put in place in order to achieve alignment between business strategy and IT strategy. It then compares these measures to those proposed by the Strategic Alignment Model (SAM). The analysis of the data has relied on all the evidence collected from interviews and company documents to evaluate the measures that the bank has put in place in order to achieve alignment between business strategy and IT strategy.

In order to analyze the data statistically, dummy coding was used in the structured fixed-alternative questionnaires that were used to collect data during the interview. According to Zikmund et al (2009:469) dummy coding is a simple way to represent classification variables and can be used to assign a variable to a dichotomous response like yes or no. In this case dummy coding would assign a 0 to the yes category and a 1 to the no category. In cases where more than two categories exist, multiple dummy variables are used to represent a single qualitative response that can take on more than two categories. Zikmund et al (2009:469) states that "the rule of dummy coding is that if *k* is the number of categories for a qualitative variable, *k-1* dummy variables are needed to represent the variable". Zikmund et al (2009:469) recommends two rules of thumb that need to be considered during code construction. The first rule states that the coding categories should be exhaustive. This implies that a coding category should exist for all possible responses. The second rule stipulates that the coding categories should be mutually exclusive and independent. This simply means that no overlap should exist among the categories and this will ensure that a response can only be placed in only one category.

3.7 Research Procedure and Technique

According to Zikmund et al (2009:186) "Respondents are people who verbally answer an interviewer's questions or provide answers to written questions". For the purpose of this research, the respondents were all requested to participate in the

research survey and appointments were scheduled with each of the respondents for interview sessions. Zikmund et al (2009:186) state that "the more formal term, sample survey, emphasizes that the purpose of contacting respondents is to obtain a representative sample, or subset, of the target population". The interviews were conducted over a two week period. During the interview sessions, some of the respondents provided the researcher with documentation that substantiates their claims. The respondents were divided into two main categories. Type 1 Respondents were the IT managers from the IT division of the bank. Type 2 Respondents were the business managers from the various divisions of the bank that get IT services from the IT division. The method that was used to identify the respondents was the purposive sampling and snowball sampling.

Zikmund et al (2009:336) emphasize the critical importance of the research questionnaire development stage as the information provided is only as good as the questions asked. Zikmund et al (2009:336) argue that "for a questionnaire to fulfil a researcher's purposes, the questions must meet the basic criteria of relevance and accuracy". Zikmund et al goes on to describe that a questionnaire is relevant if all information which is collected addresses a research question that will allow the researcher to address the business problem at hand. Zikmund et al (2009:336) state that accuracy on the other hand simple implies that the information collected is valid and reliable.

A sample of Type 1 Respondents was taken from the bank's Group Technology. Group Technology is the central IT division of the bank that provides IT services to the various divisions within the bank. A sample of Type 2 Respondents was taken from the various business divisions of the bank. These business divisions all get their IT services from the Group Technology division. The data was collected from the respondents through fixed-alternative questions and open-ended response questions where semi structured interviews were conducted face to face or telephonically with each of the respondents. Zikmund et al (2009:338) argues that, with opened-ended, "respondents are free to answer with whatever is foremost in their minds". As suggested by Zikmund et al (2009:338) "open-ended questions are

good last questions to for a fixed-alternative questionnaire as they allow the respondents to expand in a manner that provides richness to the data". The research participants were requested to participate in the research and appointments were scheduled for interviews. Interviews were prepared for and planned accordingly. The interviews were conducted over a two weeks period. Existing documents were also analyzed to collect further information relating to the bank's IT strategy.

3.8 Ethical considerations

Permission has been granted to the researcher by the Group Compliance office to carry out the research. The researcher is an IT practitioner falling into the category of Type 1 Respondent. The researcher will avoid becoming attached to certain viewpoints of respondents that may jeopardize impartiality. The researcher will also avoid asking leading questions and subconsciously giving subtle clues with body language or tone of voice, that subtly influence the respondents into giving answers skewed towards the researcher's own opinions, prejudices and values. The researcher will also protect any confidential information that the bank may disclose to the researcher. The researcher has been requested by the bank that research work must not be publically published without their permission.

3.9 Conclusion

The results of the case study will help identify what the bank is doing well in terms of aligning business strategy and IT strategy; and identify areas where the bank can improve the alignment of business strategy and IT strategy. The results of the survey provide recommendations of how the identified alignment gaps can be minimised. The survey also presents alignment factors that are considered to be important enablers of business strategy and IT strategy alignment. Lastly, the results of the survey present the perceived outcomes of alignment that are considered to be of importance.

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Appendix 1 – Interview Questions

This questionnaire is part of my MBA academic research dissertation which aims to evaluate the alignment between IT strategy and business strategy at a South African bank. The objective of the research is to accomplish four individual goals with respect to the strategic alignment of business strategy and IT strategy at a South African bank.

Goal 1: Review the measures that the bank has put in place in order to achieve alignment between IT strategy and business strategy.

Goal 2: Identify alignment gaps that exist between IT strategy and business strategy in the bank. If the gaps exist, the research study will explore why alignment gaps exist between the IT strategy and Business strategy in the bank.

Goal 3: Suggest methods which can be used to minimize the identified alignment gaps. Particular attention will be placed on the use of the Strategic Alignment Model (SAM) as a tool for achieving alignment between IT strategy and business strategy.

The final product of my research will be a teaching case study which will be made available to the organization and Rhodes University. Once the teaching case is made available to the organization, IT decision makers and business decision makers within the organization can use the case study to identify key findings and recommendations highlighted in the case study. The organization will be allowed to make use the findings and recommendations identified in the research.

1) What is your gender?

Male (1)	Female (2)

2) What is your age?

22 - 25 (1)	26 - 30 (2)	31 - 40 (3)	41 - 50 (4)	51 - 60 (5)	61 – 70 (6)

3) What level are you on in your organization?

Executive (1)	Senior Manager (2)	Middle Manager (3)	Junior Manager (4)	Specialist (5)

4) Which part of the organization do you fall under?

IT Division (1)	Business Division (2)

5) What is the number of years you have been working in your industry?

1 - 5 (1)	6 - 10 (2)	11 - 15 (3)

6) IT strategy is an enabler of business strategy?

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

7) To what extent are you involved in the formation of IT strategy in your organization?

Not Involved at all (1)	Involved at a very small scale (2)	Neutral (3)	Fairly Involved (4)	Highly Involved (5)

8) To what extent are you involved in the formation of business strategy in your organization?

Not Involved at all (1)	Involved at a very small scale (2)	Neutral (3)	Fairly Involved (4)	Highly Involved (5)

9) It is important to have alignment between IT strategy and business strategy.

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)

10) IT strategy and business strategy in the organization is:

Not well Aligned at all (1)	Not well Aligned (2)	Neutral (3)	Well Aligned (4)	Extremely Well Aligned (5)

11) Improved relationship between IT and business stakeholders is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

12) Improved communication between IT and business stakeholders is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

13) Improved utilization of IT resources within the organization is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

14) Reduction of IT costs is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

15) Improved revenue for the business is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

16) Improved IT return on investment is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

17) Increased competitive advantage is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

18) Improved perception of the IT function within the organization is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

19) By aligning IT strategy and business strategy, the following results can be achieved. Rank them in order of importance.

Using a scale of 1, 2,3,4,5,6,7,8

1 = highest ranking – most important of all

8 = lowest ranking – least important of all

Perceived Outcome Of Alignment	**Ranking**
Increased competitive advantage	
Improved IT return on investment	
Improved revenue for the business	
Reduction of IT costs	
Improved utilization of IT resources	
Improved communication between IT and business stakeholders	
Improved relationship between IT and	

business stakeholders	
Improved perception of the IT function within the organization	

20) How important is the involvement of business decision makers in the formulation of the IT strategy in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)

21) How important is the involvement of IT decision makers in the formulation of business strategy in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)

22) How important is effective communication/collaboration/partnership between business decision makers and IT decision makers in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)

23) How important is the effective prioritization of IT projects in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)

24) How important is the knowledge that business has of the IT domain in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)

25) How important is the knowledge that IT has of the business domain in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)

26) The following alignment factors are important enablers of IT strategy and business strategy alignment. Rank them in terms of importance.

Using a scale of 1, 2, 3,4,5,6

1 = highest ranking – most important of all

6 = lowest ranking – least important of all

Alignment factor	**Ranking**
Involvement IT decision makers in the formation of business strategy	
Involvement of business decision makers in the formation of IT strategy	
Effective Communication/Collaboration/Partnership between business and IT stakeholders	
Effective prioritization of IT projects	
Business understands the IT domain	
IT understands the business domain	

27) Are you aware of any measures that have been put in place by the IT division in order to ensure that the IT strategy and business strategy are aligned? If so, please describe them.

28) Are you aware of any measures that have been put in place by your business division in order to ensure that the IT strategy and business strategy are aligned? If so, please describe them.

29) Are you aware of any important results that you feel can or have been achieved by alignment between IT strategy and business strategy? If so, please describe them.

30) Are you aware of any gaps that currently exist between IT strategy and business strategy? If so, please describe them.

If any gaps exist, how would you recommend that they be minimized or closed?

Appendix 2 – Teaching Note: GT Strategy – Three Strategic Pillars

GT has adopted a **three pillared** strategic approach to drive execution of its strategy. The three pillars are as follows:

1. Proactive collaboration between GT and Group
2. Improved project portfolio prioritisation and management
3. A three year strategic improvement programme (SIP).

Strategic Pillar 1: Strategic Improvement Programme (SIP)

In order to meet its performance objectives, to continue to deliver outstanding service to the business clusters, address issues identified by the benchmarking assessments, and continue to support the bank's GR8 strategic focus areas, GT has embarked on an initiative called SIP. According to Van de Venter and Gcaba (2011:1) "SIP is a three year programme that was defined at the end of 2009, started executing in January 2010 and which will last until the end of 2012. It is aimed at aggressively coordinating, driving and tracking the execution of strategic improvements, with focus on ensuring a step change in service delivery, service productivity and architectural advancement". The programme was established as a centre of competence within GT regarding strategic productivity improvements. Figure 1, indicates that SIP is the middle pillar that focuses on improving GT's efficiency and effectiveness. Van de Venter and Gcaba (2011:2) state that the balance scorecard of each executive is aligned with SIP. This filters down to the balance scorecards of teams and individual members in each team. The purpose of this approach is to ensure that the SIP is executed by every GT member.

SIP currently consists of 10 key initiatives comprising around 35 sub-projects. Figure 2 lists the 10 SIP key initiatives and the core focus areas that each initiative falls under.

The criteria for initiatives to be scoped into the programme were**:**

- Initiatives with either a high strategic importance or a change character for GT
- Defined scope, milestones, benefits and resources requirements

- Adequate scale of costs and benefit
- Defined success measures that map directly to the key initiatives, GT strategic goals and balanced scorecard.

The SIP programme has four focus areas and is shaped to measurably and sustainably improve performance in the following areas:

- Improve innovation and execution.
- Deliver commercially based services that are transparent, differentiated and provide customer choices (including a more commercial mindset and improved cost efficiency)
- Provide a technical architecture that improves agility and competitiveness (including simplification, standardisation and rationalisation); and
- Productivity and cost efficiency gains in 'run the business' activities

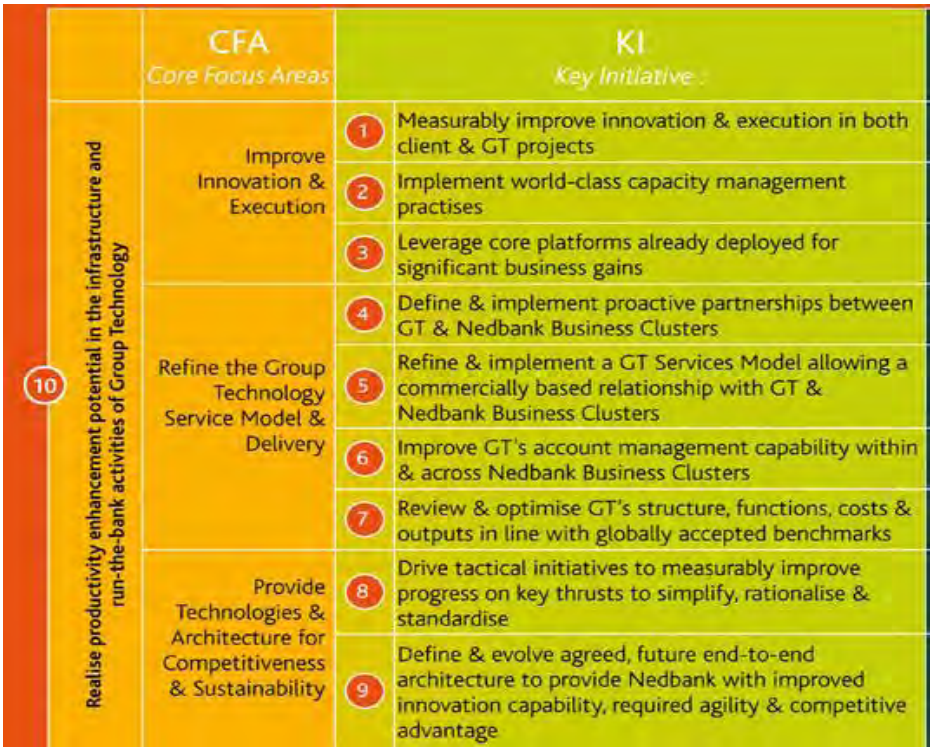


Figure 18: The 10 key SIP initiatives (Van de Venter and Gcaba, 2011:3)

SIP Core Focus Area: Improve innovation and execution

According to Howcroft and Wheater (2011:23) the objective of this core focus area is to improve innovation speed of delivery while reducing cost. Primary targets include:

- Decrease in Innovation costs of 50%
- Increase speed to market by 50%

Howcroft and Wheater (2011:23) state that these targets are supported by reengineered processes including reengineered human resource capacity management as well as the leveraging of core platforms to support improved speed and agility.

SIP Core Focus Area: Refine the Group Technology Service Model and Delivery

According to Howcroft and Wheater (2011:24) this core focus area aims to improve all services to the Group by GT. The objectives include “ease of doing business” with GT from a business cluster perspective. This includes improved transparency of GT’s pricing model; simplicity of processes through a redefined service model as well as established accountability and roles to ensure that engagement with the business runs smoothly.

SIP Core Focus Area: Provide Technology and Architecture for Competitive Advantage

According to Howcroft and Wheater (2011:24) Rationalisation, standardisation and simplification of the application landscape are the main objectives of this focus area. Howcroft and Wheater (2011:24) state that the target is to reduce the number of applications from 220 to 60. This rationalisation will pave the way for GT to achieve an enterprise technology architecture that will ensure agility and therefore competitiveness going forward, without the constraints of outdated or duplicated systems. This rationalisation will also reduce costs significantly.

SIP Core Focus Area: Productivity enhancement in run-the-bank activities

Howcroft and Wheater (2011:26) indicate that the creation of improved efficiencies from a cost and operational perspective by streamlining and reengineering "run-the-bank" processes and activities is the objective of this core focus area.

Strategic Pillar 2: Group and GT Proactive Collaboration

In order to continue to support bank's GR8 strategic focus areas, GT has found it essential that it becomes a business partner that is effective in delivering business value (and not only efficient in resource utilization). In order to achieve this, as part of its strategy, GT has set up a team called the Divisional Technology Officer (DTO). According to Van de Venter and Gcaba (2011:3) the overall objective of this strategic pillar is to drive effective collaboration between the group and GT. Specific objectives include:

- Ease of doing business
- Strategic Alignment
- GT accountability – (DTO take charge programme)
- Transparency of GT costs and services
- Customer delight
- Preferred technology partner to the business

Figure 1 highlights that this strategic pillar is aligned to the DTO teams and therefore indicates that effective collaboration between the group and GT is driven by the DTO teams.

Van de Venter and Gcaba (2011:4) indicate that in order to improve collaboration, GT has adopted an operating model that is based on the following principles:

- Response – I'll respond to your question and pass you on to a person who can help with this - we're in the commodity business.
- Interaction – I'll help you with this query now, as best as I can, and own the query to resolution.

- Conversation – We'll see you not as a set of accounts, but as a customer, whose needs are met by the products we offer. We'll always know what's happening across all your accounts, and the conversation you and I have will be in the context of the broader conversation you're having with the bank.
- Relationship - At the point I deal with you, not only can I have a conversation with you, but I am mandated to action all your requests, and give you holistic advice on your financial needs. You can always go to the same person to meet your every needs.

Strategic Pillar 3: Project Portfolio Prioritization

According to Van de Venter and Gcaba (2011:4) the objective of this strategic pillar is to ensure that all innovation projects are assessed from a strategic requirement perspective (Group, GT and architecture) as well as a return on investment (ROI) perspective and prioritised accordingly. The monitoring and ongoing improvement of this core focus area ensures improved Group and GT alignment, advancing strategies and cost savings. Howcroft and Wheater (2011:36) indicate that significant changes have been made to the prioritization process resulting in improved decision making and portfolio assessment.

Table 4 below shows the measures that have been put in place in order to improve project prioritization.

Table 4: Project prioritization process (Howcroft and Wheater, 2011:36)

Existing Process	Revised Process	Comment
Projects ranked based on cluster inputs with little to debate on strategic and economic benefits to the group.	Project prioritisation based on strategic and economic value. Strong emphasis on risk adjusted portfolio return.	Resources planning, strategic alignment and architectural fit not included in prioritisation decision making.

Constituted prioritization forum lacked mandate to make decisions – little horizontal debate on project priorities.	Prioritization process elevated to Group Exco to challenge and debate portfolio plan and project prioritization	Further emphasis on prioritisation decision making based on managing resource constraints.
Cluster cash flow allocations based primarily on prior year spend.	Cluster Cash flow allocation based on projects with highest strategic and economic value.	Little to no cash flow allocated to GT to enhance the system landscape in order to run the bank more effectively.
Project prioritization happened after the conclusion of the 3 year planning process.	Portfolio management process included in strategic and financial planning process Portfolio decision to be included in scorecard definition to ensure lines of accountability.	Alignment of project prioritization to 3 year planning process will allow for inclusion of project benefits to 3 year plans.

Appendix 3 Teaching Note: Minimizing alignment gaps through Strategic Alignment Model (SAM)

According to the Strategic Alignment Model (SAM) of Henderson and Venkatraman (1991), an organization can be divided into four domains which are business strategy, IT strategy, organizational infrastructure and processes and IT infrastructure and processes. Strategic alignment can be achieved if business strategy, IT strategy, organizational infrastructure and processes, and IT infrastructure and processes are all in harmony. If all of these four domains are integrated, then strategic alignment will be achieved.

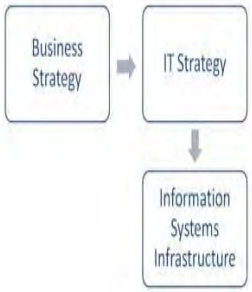
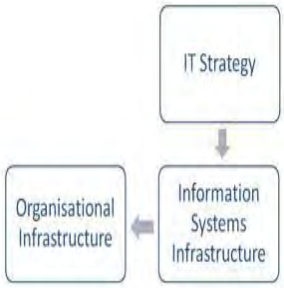
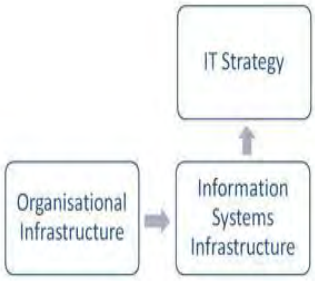
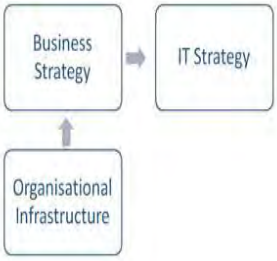
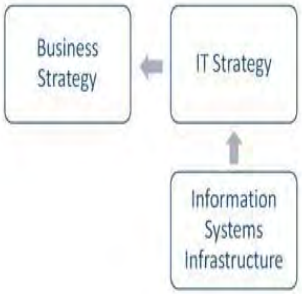
In total, SAM has eight different strategic alignment perspectives. The strategic alignment perspectives are links between three of the domains in SAM. The three domains are sequentially linked in the following way:

- The first domain in the link is the anchor domain. It is the one that initiates the change. It provides the forces behind the change. The change is intended to address a problem area.
- The second domain in the link is the problem area. It is known as the pivot domain.
- The changes in the pivot domain affect the third domain which is called the impacted domain.

At the moment, the research studies that have conducted have been able to identify eight different alignment perspectives of SAM.

Henderson and Venkatraman (1999) indicate that because strategy is often the driver of changes, the perspectives where one of the strategy domains are the anchor domain are always considered to be the dominant perspectives.

Table 5: Eight strategic alignment perspectives of SAM (Coleman and Papp, 2006, Henderson and Venkamatran, 1992, Henderson and Venkatraman, 1999, Luftman, Lewis and Oldach, 1993, Papp, 2004)

1) Strategy Implementation	2) Technology Leverage	3) Technology Exploitation	4) Technology Implementation
			
5) Organization Requirements	**6) Organization Exploitation**	**7) IS Capacity**	**8) IS Requirements**
			

Amongst the eight strategic alignment perspectives of SAM, this research study has identified two perspectives that provide an indication of how the alignment gaps that exist between business strategy and IT strategy in the bank can be minimized. The most applicable strategic alignment perspectives are the Technology Leverage and Technology Exploitation.

The Technology Leverage perspective has the business strategy as the driving factor. The business strategy seeks to identify the best possible IT solutions and the

corresponding internal IT architecture. With this perspective, the chosen business strategy is implemented through the appropriate IT strategy and the articulation of the IT infrastructure and processes. With this perspective, the role of management is basically to provide a technology vision that supports the business strategy. The IT management plays the role of the technology architect, effectively and efficiently designing and developing the required IT infrastructure and processes.

With the Technology Exploitation perspective, the IT strategy is leading. Emerging possibilities in IT lead to new products and services. These influence key attributes of the business strategy, which also leads to corresponding changes in the organizational infrastructure and processes. With the IT strategy as a starting point, the best set of business strategy options is identified. With this perspective, top management plays the role of business visionary, indicating how the emerging IT capabilities influence the business strategy. IT management acts as a catalyst, identifying and interpreting trends in IT to assist business managers to understand the possible threats and opportunities from an IT perspective.

Appendix 4 – Response to Individual Questions

The mean of each response was calculated using the following formula:

W = weighted value assigned to a rating

F = Frequency or respondent count of those that picked that rating

S = Sum of totals

T = Total respondents

M = Mean

Calculating the mean: $S = [W1*F1 + W2*F1 + ... + Wn*Fn]$

$M = S/T$

1. What is your gender?

Male (1)	Female (2)
20	**6**

Mean = 1.23

2. What is your age?

22 - 25 (1)	26 - 30 (2)	31 - 40 (3)	41 - 50 (4)	51 - 60 (5)	61 – 70 (6)
0	**2**	**12**	**8**	**4**	**0**

Mean = 3.54

3. What level are you on in your organization?

Executive (1)	Senior Manager (2)	Middle Manager (3)	Junior Manager (4)	Specialist (5)
6	**5**	**10**	**5**	**0**

Mean = 2.54

4. Which part of the organization do you fall under?

IT Division (1)	Business

	Division (2)
13	**13**

Mean = 1.5

5. What is the number of years you have been working in your industry?

1 - 5 (1)	6 - 10 (2)	11 - 15 (3)
5	**15**	**6**

Mean = 2.04

6. IT strategy is an enabler of business strategy?

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
0	**0**	**3**	**6**	**17**

Mean = 4.54

7. To what extent are you involved in the formation of IT strategy in your organization?

Not Involved at all (1)	Involved at a very small scale (2)	Neutral (3)	Fairly Involved (4)	Highly Involved (5)
2	**4**	**7**	**3**	**10**

Mean = 2.04

8. To what extent are you involved in the formation of business strategy in your organization?

Not Involved at all (1)	Involved at a very small scale (2)	Neutral (3)	Fairly Involved (4)	Highly Involved (5)
8	**3**	**1**	**6**	**8**

Mean = 3.12

9. It is important to have alignment between IT strategy and business strategy.

Not Important	Not Important	Neutral (3)	Important (4)	Very

at all (1)	(2)			Important (5)
0	**0**	**0**	**5**	**21**

Mean = 4.81

10. IT strategy and business strategy in the organization is:

Not well Aligned at all (1)	Not well Aligned (2)	Neutral (3)	Well Aligned (4)	Extremely Well Aligned (5)
0	**15**	**3**	**8**	**0**

Mean = 2.73

11. Improved relationship between IT and business stakeholders is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
0	**2**	**5**	**9**	**10**

Mean = 4.05

12. Improved communication between IT and business stakeholders is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
0	**1**	**3**	**11**	**11**

Mean = 4.23

13. Improved utilization of IT resources within the organization is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
0	**0**	**2**	**11**	**13**

Mean = 4.42

14. Reduction of IT costs is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
0	**0**	**2**	**9**	**15**

Mean = 4.5

15. Improved revenue for the business is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
0	**0**	**0**	**12**	**14**

Mean = 4.54

16. Improved IT return on investment is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
0	**0**	**1**	**8**	**17**

Mean = 4.62

17. Increased competitive advantage is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
0	**0**	**3**	**10**	**13**

Mean = 4.39

18. Improved perception of the IT function within the organization is achieved through alignment between IT strategy and business strategy.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
0	**2**	**5**	**9**	**10**

Mean = 4.04

19. By aligning IT strategy and business strategy, the following results can be achieved. Rank them in order of importance.

    Using a scale of 1, 2,3,4,5,6,7,8

    1 = highest ranking – most important of all

    8 = lowest ranking – least important of all

Perceived Outcome Of Alignment				**Ranking**					
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Increased competitive advantage	6	11	4	3	2	0	0	0	**26**
Improved IT return on investment	15	6	5	0	0	0	0	0	**26**
Improved revenue for the business	4	4	14	4	0	0	0	0	**26**
Reduction of IT costs	1	4	3	13	5	0	0	0	**26**
Improved utilization of IT resources	0	1	0	6	16	2	0	1	**26**
Improved communication between IT and business stakeholders	0	0	0	0	2	9	9	6	**26**
Improved relationship between IT and business stakeholders	0	0	0	0	1	12	12	1	**26**
Improved perception of the IT function within the organization	0	0	0	0	0	3	5	18	**26**
	26	**26**	**26**	**26**	**26**	**26**	**26**	**26**	

20. How important is the involvement of business decision makers in the formulation of the IT strategy in achieving alignment between IT strategy and business strategy?

Not Important	Not Important	Neutral (3)	Important (4)	Very

at all (1)	(2)			Important (5)
0	**0**	**3**	**10**	**13**

Mean = 4.38

21. How important is the involvement of IT decision makers in the formulation of business strategy in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)
0	**0**	**2**	**9**	**15**

Mean = 4.5

22. How important is effective communication/collaboration/partnership between business decision makers and IT decision makers in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)
0	**0**	**4**	**11**	**11**

Mean = 4.27

23. How important is the effective prioritization of IT projects in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)
0	**0**	**5**	**9**	**12**

Mean = 4.27

24. How important is the knowledge that business has of the IT domain in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)
0	**3**	**7**	**7**	**9**

Mean = 3.85

25. How important is the knowledge that IT has of the business domain in achieving alignment between IT strategy and business strategy?

Not Important at all (1)	Not Important (2)	Neutral (3)	Important (4)	Very Important (5)
0	**2**	**7**	**7**	**10**

Mean = 3.96

26. The following alignment factors are important enablers of IT strategy and business strategy alignment. Rank them in terms of importance.
    Using a scale of 1, 2, 3,4,5,6
    1 = highest ranking – most important of all
    6 = lowest ranking – least important of all

	Ranking						
Alignment factor	**1**	**2**	**3**	**4**	**5**	**6**	
Involvement IT decision makers in the formation of business strategy	13	5	6	2	0	0	**26**
Involvement of business decision makers in the formation of IT strategy	8	12	4	2	0	0	**26**
Effective Communication/Collaboration/Partnership between business and IT stakeholders	5	5	11	5	0	0	**26**
Effective prioritization of IT projects	0	4	5	17	0	0	**26**
Business understands the IT domain	0	0	0	0	19	7	**26**
IT understands the business domain	0	0	0	0	7	19	**26**
	26	**26**	**26**	**26**	**26**	**26**	