

**A STUDY OF STRATEGIC INTELLIGENCE
AS A STRATEGIC MANAGEMENT TOOL
IN THE LONG-TERM INSURANCE
INDUSTRY IN SOUTH AFRICA**

by

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Abstract

Changes and challenges that have occurred in the past two decades have forced a radical shift in the basic foundations of how business is conducted. Internal, as well as external forces have forced organisations to constantly monitor their surrounding environment in order to create an awareness of opportunities and threats to allow them to survive in their competitive environment.

Organisations need to gather all the information at their disposal, and turn the raw data into intelligence through a process of analysis and an exercise of human judgement. By utilising the potential offered by information systems in the process of generating intelligence and creating a corporate knowledge base to be used in strategic decision-making will lead to competitive advantage and constant innovation.

Strategic Intelligence has information as its foundation. This research proposes that through its ability to absorb sources of information, the synergy of Business Intelligence, Competitive Intelligence, and Knowledge Management combined to form Strategic Intelligence, will allow organisations to incorporate all of their information and intellectual capital into a single database or system which will meet the intelligence requirements of management.

The purpose of this study is to identify the current use of Strategic Intelligence in the Long-term Insurance Industry in the South African environment, and through the use of a survey questioned the benefits or problems experienced by executive management who have not yet implemented and used Strategic Intelligence as an input to the Strategic Management process, and identified the perceived value Strategic Intelligence could add in the decision-making process.

The research study shows that organisations have not yet fully embraced a model for a cooperative global internal corporate Strategic Intelligence System or Portal that will incorporate all aspects of Strategic Intelligence into a single, easily manageable resource for management's strategic planning and decision-making process, even though it could enhance their ability to withstand the onslaught of global competitors and expand their business into new markets, protect their local market or identify potential merger or acquisition targets, and increase innovation within the organisations.

Key Terms

Business Intelligence, Competitive Intelligence, Knowledge Management, Long-Term Insurance Industry, Strategic Intelligence, Strategic Management, Strategic Management Tool, Strategic Decision-Making.

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And final thanks for all the abuse and torment suffered by me in the past few months at the hands of my Bulldog puppy, Thor, while trying to complete this dissertation.

The boundaries set upon one's dreams and goals are the creation of excuses and fear of the unknown.

Statement of Originality

Student Number: 3334-232-6

I declare that “*A STUDY OF STRATEGIC INTELLIGENCE AS A STRATEGIC MANAGEMENT TOOL IN THE LONG-TERM INSURANCE INDUSTRY IN SOUTH AFRICA*” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Jean-Pierre Kruger

Date

Glossary

APQC American Productivity and Quality Centre

BI Business Intelligence

CI Competitive Intelligence

IC Intellectual Capital

ICT Information Communication Technology

IS Information Systems

IT Information Technology

KM Knowledge Management

MIS Management Information Systems

SI Strategic Intelligence

SPSS Statistical Package for the Social Science

WWW World Wide Web

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Chapter 1

Introduction

If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle. - The Art of War by Sun Tzu, 6th century BC.

1.1 Introduction

The past two decades have seen a radical shift in the basic foundations of how business is conducted. The globalisation of markets and production resulted in national markets being integrated into a single global market trading in global products. The shift has been strengthened through the declining of trade barriers and fundamental developments in communication, information and transportation technologies. Globalisation resulted in greater world output, foreign investment, greater imports and exports and immense competitive pressures both between nations and industries (Hill, 2005; Pearce and Robinson, 2005).

Advancements in information technology and related developments in communication technology has increased organisations' ability to link global operations into sophisticated information networks, shrinking the time in which information is collected and enabling organisations to achieve tight coordination in worldwide operations (Hill, 2005; Laudon and Laudon, 2007; Pearce and Robinson, 2005). External factors influence the organisations' direction, organisational structure and internal processes. These factors that exist in the organisations' remote, industry and operating environments require constant monitoring for the formulation of strategies to optimise the organisations market opportunities and threats to allow them to survive in their competitive environment (Pearce and Robinson, 2005).

Organisations are using information to expand and maintain competitive advantage in the current information age in which knowledge is power (Haag, Cummings and Philips, 2007). Gathering information, and turning this raw data into intelligence through an exercise of human judgement is a fundamental aspect of business (Murphy, 2005). Knowledge and information are vital components in creating wealth for organisations. By utilising information systems in the process of generating knowledge and intelligence, the abundance of available information will allow organisations to generate competitive advantage and constant innovation to survive and prosper in the long term (Laudon and Laudon, 2007).

1.2 Background

1.2.1 Current Literature

To understand why information is vital, and how intelligence is collected and used within the business environment, one needs to understand the different knowledge levels that exist for decision making which build upon each other.

According to Post and Anderson (2003:5) information “*represents data that has been processed, organised, and integrated to provide more insight*” while Laudon and Laudon (2007:10) identify information as “*data that have been shaped into a form that is meaningful and useful to human beings*”. Haag *et al.* (2007:6) believe information “*is simply data that have a particular meaning within a specific context*”. The authors all agree that information is generated from data, which can be defined as “*streams of raw facts representing events occurring in organisations or the physical environment before they have been organised and arranged into a form that people can understand and use.*” (Laudon and Laudon, 2007:10), or as “*raw facts that describe a particular phenomenon.*” (Haag *et al.*, 2007: 6).

Information can further be transformed into knowledge. Post and Anderson (2003:5) believe knowledge “*represents a higher level of understanding including rules, patterns, and decisions*”. Turban, Aronson, Liang, and Sharda (2007: 482) further define knowledge as “*information that is contextual, relevant, and actionable*”, and argue that “*humans are also capable of wisdom, where they put knowledge, experience, and analytical skills to work to create new knowledge and adapt to changing situations*”. Information systems are designed to assist managers analyse data and make decisions, while more comprehensive knowledge-based systems are built to artificially analyse data, identify patterns, and recommend decisions (Post and Anderson, 2003). To create wisdom, which is the connection made between one’s own beliefs and information, from knowledge requires human interaction and analysis, while the application of wisdom leads to insight or intelligence which influences continuous innovation. Wisdom is the human ability to learn from experience and adapt to changing conditions (Post and Anderson, 2003).

The abundance of information available has led to much research on how relevant intelligence can best be gathered and generated from the information and data, to assist in decision making. Both McGonagle (1996), from a senior managerial perspective, and Liebowitz (2006a) identified Strategic Intelligence as information regarding the competitive, economic, market and political environments in which the organisation operates combining the two specialised branches of

intelligence; namely business and competitive, with Liebowitz (2006b) incorporating knowledge, combined together to provide value-added information to help the organisation maximise its strategic mission and vision.

Haag *et al.* (2007: 85) define Business Intelligence (BI) as *“knowledge about your customers, your competitors, your business partners, your competitive environment, and your own internal operations – that gives you the ability to make effective, important, and often strategic business decisions”*, but also notes that a specialised branch of business intelligence exists that is named Competitive Intelligence (CI). Haag *et al.* (2007: 86) define Competitive Intelligence as *“business intelligence focused on the external competitive environment”*. Murphy (2005) further explains that competitive intelligence includes more than benchmarking against competitors and includes a monitoring of the social, technological, economic and political environments, embracing all factors that could endanger or enhance an organisations competitive position. Turban *et al.* (2007: 24) use the term Business Intelligence as *“an umbrella term that combines architectures, tools, databases, analytical tools, applications, and methodologies”* that *“give business managers and analysts the ability to conduct appropriate analysis”* on historical and current business data.

The definitions listed above indicate a similar outlook but use different terminologies to define the concepts. For the purpose of this research, the researcher will define Strategic Intelligence as the combination of Business Intelligence, and Competitive Intelligence to allow the researcher to further analyse the component parts and tools utilised by the specialised fields.

To this end, Davenport (1999) and Johnson (2005) have argued that corporate Intelligence (including Business and Competitive Intelligence) and Knowledge Management are complimentary partners, which, when utilised together, allow for the realisation of broader corporate strategic advantage. Turban *et al.* (2007) define Knowledge as *“information that is contextual, relevant, and actionable”* and Knowledge Management as *“the systematic and active management of ideas, information, and knowledge residing in an organisations employees. The structuring of knowledge enables effective and efficient problem solving, dynamic learning, strategic planning, and decision making”*. Corporate information and knowledge can be shared in logical manner to leverage its value through reuse by utilising a formal Knowledge Management System (KMS).

The development of Strategic Information Systems allows organisations to remain ahead of the competition. Neumann (1994:1) defines a Strategic Information System, by focusing on the use

of the system, which is *“to support the competitive strategy of a company in its industry and its plan for gaining and maintaining competitive advantage, or reducing its competitive disadvantage relative to its rivals.”* while Ciborra (1993) identifies Strategic Information Systems as those that generate competitive advantage and that essentially support the business against competition and in the process of planning and implementing strategy. Laudon and Laudon (2003:88) define Strategic Information Systems with a broader view as *“computer systems at any level of the organisation that change goals, operations, products, services or environmental relationships to help the organisation gain a competitive advantage”* which corroborate the views of the previous two authors that Strategic Information Systems can provide competitive advantage to an organisation if implemented to achieve specific organisation goals or strategy.

Montgomery and Weinberg (1998) identified the need for research into Strategic Intelligence systems that could be utilised by management. They described strategic intelligence systems as those that focused on *“the selection, gathering, and analysis of information needed for strategic planning”* (Montgomery and Weinberg, 1998). They further identified the purpose of Strategic Intelligence systems as to enhance the intelligence cycle which when utilised; during the Strategic planning phase of Strategic Management, in the correct way, could lead to innovation and corporate advantage (Montgomery and Weinberg, 1998). Marchand and Hykes (2007) furthered this opinion by stating that in most situations, a more distributed approach to Strategic Intelligence would be preferable which would allow for information sharing across the entire organisation. To build a strong strategic intelligence process incorporating a Strategic Intelligence System, the organisation needs to include the process as part of its corporate strategy and develop mature information capabilities (Marchand and Hykes, 2007).

Pearce and Robinson (2005:3) define the Strategic Management process as *“the set of decisions and actions that result in the formulation and implementation of plans designed to achieve a company’s objectives.”* They then further this perspective by mentioning that strategic decisions are made by top management, and are future oriented which could affect multiple businesses and are mostly to do with but not limited to the external environment. By incorporating organisation wide strategic intelligence into the organisations strategic management process, management will be empowered to make better informed strategic decisions.

Effective strategic decisions that are critical to the long term success of an organisation require a structure referred to as the Strategic Planning process which consists of three interacting

processes namely Strategic Analysis, Strategic Choice and Strategic Implementation. In an attempt to make the correct choices and to implement the correct strategy, strategic leaders require valuable, actionable and up to date Strategic Intelligence during the strategic analysis phase on which to base their decisions (Robson, 1997).

1.2.2 The South African Long-Term Insurance Industry

The modern business environment within the South African Long-term Insurance market has often been turbulent and volatile in the past, with South African organisations now required to engage international and local competitors and customers in a more regulated manner. Despite years of experience in the local environment, even the most successful and established organisations have committed strategic errors. The Long-term insurance industry is facing many challenges and changes. These challenges include (The Financial Services Board South Africa, 2007):

- Compliance with regulatory requirements.
- Increased competition.
- Financial Sector Charter.
- International Financial Reporting Standards (IFRS 4).
- Addressing the needs of the low-income market for appropriate products.
- Technology.
- Inflation and interest rates.
- Statement of Intent requirements as agreed upon by the Minister of Finance and the LOA.
- Rebuilding public confidence.
- Dealing with issues emanating from the determinations made by the Pension Fund Adjudicator.
- Consumerism.

- Global Financial Market Crisis.

A media release by the Life Offices' Association (Life Offices' Association of South Africa, 2008a) in February 2008 revealed that South Africa has an insurance gap of more than R10-trillion, by means of life and disability insurance. While the industry has made large gains in the past years, a large insurance deficit is still looming, allowing organisations the opportunity to further increase their market share.

Worldwide, the Long-term insurance industry has undergone many changes in its working model with changes focused on increasing the attractiveness of the industry to consumers. With the advent of technological advances that allow all consumers to shop around for the best products and pricing, and the globalisation of markets allowing organisations to compete globally, organisations are required to stay a step ahead of their competitors.

To achieve this, long-term insurance organisations are facing many challenges, and a number of strategic decisions will need to be made in order for them to remain stable for the foreseeable future. New products, allowing consumers a greater understanding, flexibility and visibility will be required to attract new clients as well as increase market share and remain competitive. However, by utilising Strategic Intelligence during the Strategic Management process, which could identify opportunities, and challenges faced, could allow better informed, effective decisions to be made that will assist organisations in gaining greater market share and to compete successfully against local and international competitors.

1.3 Research Purpose

Strategic Intelligence has information as its foundation. Information can be collected from both internal and external sources such as; transaction processing, financial or supply chain systems and external databases of customer, product, and supplier information or by further utilising tools such as Michael Porter's Five Forces Model or Value chain analysis to create value by converting data into information. By collecting all this information into a single data warehouse or Strategic Intelligence Repository that combines all the best aspects of Strategic Intelligence and Information systems, a single databank will be created that would align them to provide business with the information and even intelligence it requires (Liebowitz, 2006a)

This research proposes that through its ability to absorb sources of information, the synergy of business intelligence, competitive intelligence, and knowledge management combined to form Strategic Intelligence, will allow organisations to incorporate all of their information and intellectual capital into a single database or system which will meet the intelligence requirements of management.

While the article by Montgomery and Weinberg (1998) gave an insight into the working or design of a Strategic Intelligence System, and Liebowitz (2006a) and Marchand and Hykes (2007) identified the basis of Strategic Intelligence, the researcher suggests that organisations have not yet fully embraced this model for a fully cooperative global internal corporate Strategic Intelligence System or Portal that will incorporate all aspects of Strategic Intelligence into a single, easily manageable resource for management's strategic planning and decision-making process.

The purpose of this study is to identify the current use of Strategic Intelligence in the Long-term insurance industry in the South African environment, to enhance their ability to withstand the onslaught of global competitors and expand their business into new markets, protect their local market or identifying potential merger or acquisition targets, and to increase innovation within the organisations through the appropriate use of Strategic Intelligence Systems.

1.4 Research aim and questions

The primary aim of this research study is to explore the extent to which Strategic Intelligence is utilised within the South African long-term insurance industry and whether it could be used to identify opportunities or threats within the global environment to remain competitive, create greater innovation, and corporate advantage.

The following primary research questions were generated from the above aim:

- What is the extent to which Strategic Intelligence is utilised within the South African Long-term insurance industry?
- How does Strategic Intelligence form a vital component of Strategic Management?
- What value does Strategic Intelligence add to the Strategic Management Process within the South African Long-term insurance industry?

Based on the primary research questions listed above, the below secondary research questions were generated:

- How do South African Long-term insurance organisations currently collect and create Strategic Intelligence?
- What information systems are currently utilised by South African Long-term insurance organisations to create Strategic Intelligence?
- How Strategic Decisions are made in South African Long-term insurance organisations and on what intelligence are these decisions based?
- How South African Long-term insurance organisations can best implement Strategic Intelligence?

1.5 Research Objectives

Based on the above research questions the following objectives have been identified:

Primary Objectives:

- To identify the level of utilisation of Strategic Intelligence within the South African Long-term insurance industry.
- To determine how Strategic Intelligence is used and contributes to the Strategic Management Process within the South African Long-term insurance industry.
- To establish how Strategic Intelligence adds value to organisations within the South African Long-term insurance industry.

Secondary Objectives:

- To establish how Data and Information are collected and transformed into Strategic Intelligence within the South African Long-term insurance industry.
- To establish the use of information systems to create Strategic Intelligence within the South African Long-term insurance industry.

- To establish to what extent Strategic Intelligence can address the input needs of the Strategic Decision Making Process within the South African Long-term insurance industry.
- To compare the findings obtained from the sample to determine how Strategic Intelligence is implemented within South African business organisations.

1.6 Research Statement

The identification and utilisation of the most important factors of a Strategic Intelligence Framework will greatly enhance global corporate decision making and result in competitive advantage and constant innovation within the South African Business Environment.

1.7 Research Methodology

The aim of this study is to identify the extent to which Strategic Intelligence could be utilised within the Long-term insurance industry to identify opportunities or threats within the global environment to allow all the organisations to remain competitive, create greater innovation, and corporate advantage to allow them to compete in the global economy.

The South African business environment comprises many industries and for the purpose of this study, the Long-term insurance industry is selected. The population is selected as a representative of the greater South African business environment as the organisations in this industry are vulnerable to changes within the macro- and micro- environment, are undergoing intense changes within their market and regulatory environment, and their competitive advantage are based on their use of information gathered on these environments.

A purposive sampling technique will be used to select the best cases that would enable the research questions to be answered and result in the research objectives being met. Saunders, Lewis and Thornhill (2007:232) identify research that will focus on a particular subgroup in which all sample members are similar, as homogeneous sampling, which enabled the researcher to study the group in depth. As a homogeneous group, the Long-term insurance industry was selected as the population and the individual organisations approached were identified from the list of valid licenses registered with the Financial Services Board. Based on the list of organisations provided by the Financial Services Board, there are 82 Long-term insurance companies in South Africa, of which six organisations were listed on the Johannesburg Securities

Exchange within the Life Assurance Sector. The listed companies include: Old Mutual Plc, Liberty Group Ltd, Sanlam Ltd, Discovery Holdings Ltd, Clientele Life Ltd, and Metropolitan Holding Ltd.

For the purpose of this research all 82 companies were approached to participate in the survey, which provided an in depth examination of the use of Strategic Intelligence within the Long-term insurance Industry. It is however, important to stress that the focus of the study will be on the listed companies, due to their size, turnover, agility and expected efficiencies in this field. The unlisted companies were included to provide a broader range of perspectives into the respective field, and the execution of such in smaller companies.

The research comprises the following:

- An extensive literature study performed to acquire a detailed theoretical foundation of the concepts that constitute Strategic Intelligence and Strategic Management.
- A situation analysis undertaken to gain an understanding of the South African Long-term insurance industry and the sample organisations.
- A survey will be conducted with the use of an in-depth questionnaire specially developed for the purpose of this study. The survey allowed for both a comparative assessment of the findings of this research between the sample organisations, as well as a content analysis of findings obtained through the qualitative views and opinions of the respondents.

The survey will be conducted across executive managerial levels within the sample organisations, with a focus on strategic decision makers.

1.8 Value added by this research

By understanding the extent in which Strategic Intelligence is utilised in the South African Long-term insurance industry, the research will identify the benefits or problems that are experienced by implementing and using Strategic Intelligence as an input to the Strategic Management process and what value Strategic Intelligence adds in the decision making process.

1.9 Chapter Layout

The research study includes the following chapters:

- **Chapter 1.** Introduction.

Chapter 1 provides a brief overview of the research study and includes an introduction and background to the study including an overview of the research conducted.

- **Chapter 2.** Strategic Intelligence.

Chapter 2 includes an extensive literature review to establish a theoretical base for Strategic Intelligence and Strategic Management and their components. The chapter reviewed the current status of research in the proposed field and compared it to research proposed previously.

- **Chapter 3.** The Long-Term Insurance Industry.

Chapter 3 includes a comprehensive study and situation analysis of the Long-Term Insurance Industry to gain an understanding of how the industry is composed and functions.

- **Chapter 4.** Research Methodology.

The Research Methodology chapter identifies and defines the choice of research methodology and explains the reasoning behind the use of the research methodology.

- **Chapter 5.** Analysis of the Research Results.

The Chapter describes how the research was conducted, includes the results of the survey, correlation and cross tabulation analysis, and provides an analysis of the findings gathered. It includes a discussion and interpretation of the research findings combining the research findings with that of the literature findings.

- **Chapter 6.** Conclusion.

Chapter 6 includes empirical research findings based on the research results, a final summary and key findings, suggestions for future research and recommendations, with a final conclusion including contributions of this research.

Chapter 2

Strategic Intelligence

A review of Strategic Intelligence, its sub-components, and role as a tool in the Strategic Management process

“Conventional Wisdom says to get back to the basics. Conventional Wisdom says to cut costs. Conventional Wisdom is doomed. The winners are the innovators who are making bold thinking an everyday part of doing business.”

- Gary Hamel, 2002.

2.1 Introduction

All actions taken by organisations are intended to allow them to achieve strategic competitiveness and earn the organisation above-average returns. Strategic Competitiveness is achieved by an organisation when it successfully formulates and implements strategy which creates value. If competitors are unable to duplicate, or find the strategy too costly to imitate, the organisation has achieved a sustainable competitive advantage (Hitt, Ireland and Hoskisson, 2005; Carpenter and Sanders, 2009).

Hitt *et al.* (2005) are of the opinion that the fundamental nature of competition in many of the world’s industries are changing, and the pace of this change is relentless and ever increasing. Conventional sources of competitive advantage are no longer effective, requiring managers to change their traditional mindset and adapt a new mindset which values flexibility, speed, innovation, integration, and the challenges that evolve from the constantly changing conditions (Hitt *et al.*, 2005).

Organisations are aware that the rigid, seldom repeated review of organisational strategy is no longer feasible to achieve competitive advantage. Ideas and mindsets that were prominent five years ago could now be archaic, requiring a rethink of organisational strategy on a more frequent basis.

The pace of change and reform has increased the speed at which organisations are required to define strategy, but has not removed the need for a structured strategic management process. Strategic Management is an integral part of the running of an organisation, but require strategic decisions to be based on valid, and actionable intelligence, rather than the ideals, on which the organisations visions are based.

The purpose of this chapter is to review the current literature on the topic of discussion. A broad view has been taken in this review to focus on the most recent literature, but to also include older works which provided a focus, and in many instances is still the basis of the latest

literatures. Older references are included in the review, but are used to draw comparisons to the latest literature.

The chapter begins with an introduction to the concept of strategy weaving its way into the greater concept of Strategic Management; its definition, function, and a thorough explanation of its component parts – Strategic Planning and Strategic Analysis. Strategic Analysis is further focused on identifying the different environments in which the organisation finds itself in, and the effects of them on the organisation. The review further focuses on Strategic Decision Making, the process through which decisions are made, to gain an understanding of what it is and how it takes place, and what its basic information requirements are.

The chapter then changes its focus to the intelligence that is required in Strategic Decision Making. An overview of the intelligence hierarchy is given, after which an in-depth study is made of its components – Business Intelligence, Competitive Intelligence and Knowledge Management – culminating in a study of the final overarching concept which feeds into Strategic Decision Making, Strategic Intelligence. Strategic Intelligence is defined, its most common approaches understood, with a view to gain an understanding of the best method of implementing Strategic Intelligence into an organisation to feed its Strategic Management process.

The importance of this chapter, a review of current literature on the topic discussed, is to gain a thorough understanding of the research topic. This literature review will allow the researcher to compile a research instrument which will be used to conduct a comprehensive study of the topic within the research population to answer the research aims and questions.

2.2 Strategic Management

2.2.1 Defining Strategy

Organisations must continuously evaluate the environments in which they compete and decide on appropriate strategy (Hitt *et al.*, 2005). Strategy deals with the future, a long-term, uncertain future. Preparations are to be made, plans established, and actions taken together with a provision for alternative actions should the future consist of unexpected characteristics (McGee, 2006). Pearce and Robinson (2005) argue that strategy consists of large-scale, future-oriented plans that are developed for interaction with the organisation's competitive environment to achieve organisational objectives while Hitt *et al.* (2005) and Carpenter and Sanders (2009)

further explain that strategy is an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage in order to pursue the organisations goals and objectives.

McGee (2006) identifies an orientation to the future as an essential ingredient in the ideal of strategy. The concept of strategy can best be understood by identifying its dimensions and characteristics. These are (Pearce and Robinson, 2005; McGee, 2006; Carpenter and Sanders, 2009):

- Strategy is essentially about the future but quintessentially about that part of the future about which there is uncertainty. Strategy is based on what managers forecast, rather than on what they know. The emphasis is placed on the development of projections that could enable the organisation to select the most promising strategic options. The organisation will only succeed through a proactive stance toward change.
- Strategy is about taking risk. Preparations are made against potential futures which may never materialise, but if they do, the organisation is prepared.
- Strategic decisions are typically complex. Expected futures arise from complex social, technical, and other interactions. Preparations and plans envisioned require the construction of complex assets, complex interactions between several agencies, or require extensive research and development. Strategic decisions could further have complex implications for many areas of the organisation, and could involve a number of the organisation's business units or divisions.
- Strategic decisions often affect the organisation's long-term prosperity. Strategy takes time to bring to fruition and is irreversible. Strategic decisions commit capital investment for a long period, often more than five years, and once committed, the organisation's image and competitive advantage are tied to the strategy.
- Strategic issues require large allocations of the organisation's resources including people, physical assets, and capital sourced internally or externally. Strategic decisions require high degrees of coordination of activities and adaption of behaviours to create a strategic fit between the resources and capabilities of the organisation and the requirements asked of it.

- Strategic issues have significant scale and importance that overarch several areas of an organisation's operations requiring top management involvement. Only top management has the perspective to understand the broad implications of strategic decisions and the authority to authorise the necessary resource allocations.

Strategy provides a framework for managerial decisions, and as such reflects on organisation's awareness of how, when, and where it should compete; against whom it should compete; and for what purposes it should compete (Pearce and Robinson, 2005; Carpenter and Sanders, 2009).

Strategy is concerned with the determination of an organisation's basic long-term goals and objectives, and the adoption of various courses of action, including the allocation of the necessary resources required for carrying out these goals (McGee, 2006). Due to the risks and complexity inherent in developing a set of decisions and actions that would result in the formulation of strategy, and its implementation, to achieve the objectives of an organisation the concept or model of strategic management was developed (Channon, 2006a).

2.2.2 Strategic Management

Carpenter and Sanders (2009:32) define Strategic management as *"the process by which a firm manages the formulation and implementation of strategy"* while Robbins and Coulter (2009) is of the opinion that Strategic Management is simply *"what managers do to develop an organisation's strategies"*.

Morden (2007:14) comments that:

"Strategic management is concerned with the character and direction of the enterprise as a whole. It is concerned with the basic decisions about what the enterprise is now, and what it is to be in the future. It determines the purpose of the enterprise. It provides the framework for decisions about people, leadership, customers or clients, risk, finance, resources, products, systems, technologies, location, competition, and time. It determines what the enterprise should be capable of achieving, and what it will not choose to do. It will determine whether and how the organisation will add value, and what form that added value should take.

Strategic Management is also concerned with management planning and decision-making for the medium to long-term future. It is concerned with the anticipation of that future, and with the establishment of a vision or view of how the enterprise should develop into the future that it may face."

Pearce and Robinson (2005:3) define strategic management “*as the set of decisions and actions that result in the formulation and implementation of plans designed to achieve a company’s objectives*” while Mellahi, Frynas and Finlay (2005:7) minimally define strategic management as “*the process of setting long-term direction for the organization*”.

While dynamic in nature, the strategic management process consists of a full set of commitments, decisions, and actions required for an organisation to achieve strategic competitiveness and earn above-average returns. Strategic inputs are derived from the analysis of the internal and external environment, and are necessary for effective strategy formation and implementation. The strategic management process is utilised to match the conditions of an ever changing market and competitive structure with the organisations continuously evolving resources, capabilities, and core competencies. (Hitt *et al.*, 2005; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

Strategic Management consists of three component processes which comprise nine critical tasks (Pearce and Robinson, 2005; Channon, 2006a; Carpenter and Sanders, 2007; Robbins and DeCenzo, 2008; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

- Strategic Planning or Formulation
 - Formulate the organisation’s missions including broad statements about its purpose, philosophy and goals.
 - Conduct an analysis that reflects the organisation’s internal conditions and capabilities, including an assessment of its culture, history, and informal and formal organisation.
 - Assess the organisation’s external environment, including both the competitive and general contextual factors.
 - Analyse the organisation’s options by matching the organisation’s resources with the external environment.
 - Identify the most desirable options by evaluating each option in conjunction with the organisation’s mission.

- Select a set of long-term objectives and grand strategies that will lead to the achievement of the most desirable options.
- Strategic Implementation
 - Develop annual objectives and short term strategies that are consistent with the long-term objectives and strategies selected.
 - Implement the strategic choices by means of budgeted resource allocations in which the matching of tasks, people, structures, technologies, and reward systems is emphasised.
- Strategic Control
 - Evaluate the success of the strategic process as an input for future decision making.

The nine tasks identified above, clearly indicate that strategic management involves the planning, directing, organising, and controlling of an organisation's strategy-related decisions and actions (Pearce and Robinson, 2005).

In addition, it is important to note that strategic management occurs at a number of hierarchical levels within an organisation, most commonly involving three levels depending on the complexity of the organisation (Pearce and Robinson, 2005; Channon, 2006a; Carpenter and Sanders, 2007).

- The top corporate level is comprised of senior executive officers, and the board of directors. This group is responsible for providing the vision of the organisation and is responsible for the financial performance, legal structure, establishment of corporate image and social responsibility, which reflects the views of the various stakeholders of the organisation.

Decisions made at the corporate level are more value-oriented, more conceptual, and less concrete than decisions at lower levels. Decisions are often characterised by greater risk, costs, and profit potential; greater need for flexibility; and longer time horizons. Decisions could include the choice of business, financing, and priorities for growth.

- The middle business level is composed of business and corporate managers. Managers at this level translate the general direction and thrust of the organisation into specific strategies relevant to their business division or unit. They essentially determine how the organisation will compete in their product-market arena. Business level decisions bridge those at the corporate level to those at the lower functional level and may involve changes in existing behaviour, including factors such as plant location, segmentation strategy, geographic coverage, and the choice of distribution channel.
- The lower functional level is composed of managers of product, geographic, and functional areas, who develop operational strategies and tactics to implement the selected business level strategy.

Functional level decisions are normally concerned with relatively short-term, lower-risk, moderate cost activities confined to their specific functional area.

2.2.3 Strategic Planning

While most organisations have some form of corporate plan, very few are successfully implemented. Strategic Planning is the mechanism with which an organisation organises its resources and actions to achieve its corporate level objectives. Strategic Planning is a formal rather than informal process that consists of an ongoing annual planning cycle that is conducted at the hierarchical levels within the organisation, depending on its complexity. For a multi-business organisation, strategic planning will be established at the corporate, business unit and departmental or market segment level (Channon, 2006b; Robbins and DeCenzo, 2008; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

The strategic plan would include the following components (Channon, 2006b; Robbins and DeCenzo, 2008; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

- Mission which defines the present and desired position.
- Objectives which are qualitative and quantitative statements of what is desired to be achieved over a measurable future. These should be internally consistent and fit the mission.

- Goals which are specific short and long term quantitative results which directly support the objectives measured as key performance indicators.
- Strategies for achieving the goals and objectives set.

To develop a strategic plan the organisation, through all hierarchical levels, is required to commence a strategic review, which includes (Channon, 2006b):

- assumptions about the external environment,
- changes from previous assumptions,
- alternative futures or scenarios,
- a review of internal progress against the existing plan and an update of performance against goals.

Strategic planning is an iterative process, involving a repetitious sequence of strategic developments, strategic planning, plan implementation, and strategic performance measurement, and is never finalised in the sense that internal or external events may cause them to change (Channon, 2006b).

Planning provides a coordinated effort aligning management and employee direction fostering cooperation and teamwork. Planning reduces uncertainty by forcing managers to visualise the future and anticipate change, allowing the managers to consider the impacts of the change, and results in the development of appropriate responses (Robbins and DeCenzo, 2008).

To identify any changes in the organisation's internal environment or external environment, the organisation should undertake a strategic analysis process by which the organisation will examine its own internal characteristics and capabilities, and identify the most important features of the external environment within which it operates (Morden, 2007). The simultaneous assessment of the external environment and the organisation's profile will allow the organisation, through its hierarchical levels, to identify a range of possibly attractive interactive opportunities, which when screened through the missions generated, would result in the generation of opportunities on which the specific hierarchical levels' strategic plans should be based (Pearce and Robinson, 2005).

2.2.4 Strategic Analysis

An organisation's strategic direction can be influenced by global developments outside of management's control. An organisation is not isolated from the environment in which it operates; its future development, the results it can achieve and the constraints within which it operates, are functions of the business environment (Mellahi *et al.*, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

Documented organisational experiences and research suggest that the business environment affects the organisation's growth and profitability (Hitt *et al.*, 2005). Conditions within the business environment create threats to and opportunities for organisations which could have a major impact on strategic options as well as the decisions made in light of them (Hitt *et al.*, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

The business or external environment consists of all the factors inside and outside the organisation which require understanding to form strategic intent, to develop its strategic mission, and allow it to take actions that result in strategic competitiveness and above-average returns (Hitt *et al.*, 2005; Mellahi *et al.*, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

Morden (2007:18) define Strategic Analysis as "*a process by which the enterprise examines its own internal or corporate characteristics and capabilities; and identifies the most important features of the external environment within which it must operate.*" The process is used by organisations to identify and understand variables such as (Morden, 2007):

- the internal operational and financial strengths and weaknesses of the organisation,
- the external or environmental constraints, opportunities, and threats facing the organisation,
- the competitive environment within which the organisation must operate,
- the political and institutional environments within which the organisation must operate,
- the nature of the resources, capacity, leadership, willpower, and capability that the organisation possesses, or that are needed so that the organisation may be able to achieve its objectives,

- the sources of value addition available to the organisation,
- organisational sources of comparative or competitive advantage,
- organisational sources of political advantage,
- factors which are critical to organisational survival and success,
- factors which will instead place limits or constraints on the potential achievements of the organisation.

Strategic analysis is used to inform the process of strategy formulation, strategic decision-making, and strategic choice.

Organisations often face external business environments that are highly turbulent, complex, and global which make interpreting them extremely difficult. To cope with the ambiguous and incomplete environment data that is often collected, and to increase their understanding of the business environment, organisations often engage in a process called external environmental analysis (Hitt *et al.*, 2005; Carpenter and Sanders, 2009; Robbins and Coulter, 2009). The process includes four activities (Hitt *et al.*, 2005):

- scanning which identifies early signals of environmental changes and trends.
- monitoring including detecting meaning through ongoing observations of environmental changes and trends.
- forecasting which develops projections of anticipated outcomes based on monitoring changes and trends.
- assessing, determining the timing and importance of environmental changes and trends for the organisations strategies and their management.

An integrated understanding of the organisation's external and internal environments is critical to understand the present and predict the future (Hitt *et al.*, 2005).

The external business environment is divided into the external macro environment, the external industry environment, the external competitive environment, and the internal organisation environment.

2.2.4.1 The Macro Environment

The macro environment of an organisation can provide both opportunities and threats, but cannot easily be changed by the organisation. The goal of the strategic decision-maker is to develop strategies based on what the organisation can do to exploit opportunities and counter threats in the macro environment. Organisations that are skilful at monitoring and analysing the macro environment can perform better than organisations that cannot (Mellahi *et al.*, 2005; Carpenter and Sanders, 2007). Analysing the macro environment is not an easy task due to a number of reasons (Mellahi *et al.*, 2005).

- The macro environment is highly complex, with a vast number of potentially relevant influences.
- The macro environment changes over time.
- International organisations require analysis of multiple macro environments.
- Too much information could lead to information overload.
- It is difficult and expensive to monitor manually the macro environment.

The macro environment is composed of factors in the broader society that influence an industry and the organisations within it. These factors broadly include (Pearce and Robinson, 2005; Hitt *et al.*, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009):

- demographic factors which are concerned with a population's size, age structure, geographic distribution, ethnic mix, and income distribution. Demographic factors are analysed on a global market basis due to their effects across country borders and due to the number of organisations that compete globally.
- economic factors refer to the nature and direction of the economy in which a organisation competes or may compete. Due to the global economy, nations are interconnected and therefore organisations must scan, monitor, forecast and assess the economies outside their host nation.

- political/legal factors define the legal and regulatory parameters in which a organisation must compete. The direction and stability of political factors are major considerations in formulating organisational strategy. Within this arena organisations and interest groups compete for attention, resources, and a voice in overseeing the body of laws and regulations guiding the interactions among organisations and nations.
- socio-cultural factors involve the beliefs, values, attitudes, opinions, and lifestyles of people within the organisation's external environment which form the cornerstone of society and drive the other environmental conditions and changes.
- technological factors involve pervasive and diversified technological changes that affect societies and occur primarily through new product, process, and material innovations, all of which may influence the organisation.
- ecological factors are a prominent factor in the macro environment which defines the reciprocal relationship between organisations and the environment. Threats to our environment such as pollution, Co² footprints, and global warming have resulted in society expecting organisations to become greener and environmentally friendly.
- global factors include relevant new global markets, changes in existing markets, important international political events, and critical cultural and international characteristics of global markets.

2.2.4.2 The Industry Environment

The industry environment consists of a set of factors that directly influences an organisation and its competitive actions and competitive responses (Hitt *et al.*, 2005). An industry includes a group of organisations that produce products that are close substitutes, and which during the course of competition, could influence one another (Hitt *et al.*, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009). It is important for an organisation to understand how changes in its external industry environment affect or do not affect the organisation (Mellahi *et al.*, 2005).

The first step in understanding an organisation's industry environment is to identify the precise market, which can be conducted through the utilisation of a market segmentation analysis and a

strategic group analysis (Mellahi *et al.*, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009):

- a market segmentation analysis identifies the similarities and differences between groups of people who buy and use an organisation's goods and services,
- a strategic group analysis identifies organisations with similar strategies or those competing on a similar basis.

A more comprehensive understanding of an organisation's industry environment can be gained through a thorough analysis of the industry's economic and technical characteristics (Mellahi *et al.*, 2005). Porter suggested that managers should understand the rules of competition in their industry so that they become aware of the industry's attractiveness and identify their organisation's competitive position within the industry (Mellahi *et al.*, 2005; Pearce and Robinson, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009). To uncover and understand the underlying rules of an industry, Porter, developed the Five Forces Model which is used to analyse an organisation's competitive position in a specific market segment or similar market segments (Mellahi *et al.*, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

The Five Forces Model assumes that industry attractiveness and the organisations competitive position within an industry are influenced by five competitive forces (Hitt *et al.*, 2005; Mellahi *et al.*, 2005; Pearce and Robinson, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009):

- the entry of new competitors,
- the threat of substitutes,
- the bargaining power of buyers,
- the bargaining power of suppliers,
- the rivalry amongst existing competitors.

The organisation will further be required to understand the competitive situation within its environment in terms of competitive position, customer profiles, suppliers, creditors, and labour

market. These factors could provide many of the challenges that an organisation may endure in its attempts to attract or acquire needed resources to market profitably its goods and services (Pearce and Robinson, 2005; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

Through an effective industry analysis gained through the study and interpretation of data and information gathered, the organisation will develop the insights required to determine an industry's attractiveness and the organisation's potential to earn adequate or superior returns on invested capital.

2.2.4.3 The External Competitive Environment

The competitive environment is the final part of the external environment in which an organisation is interested. A competitor analysis focuses on each organisation with which the organisation competes. Many organisations are extremely interested in understanding each other's objectives, strategies, assumptions and capabilities due to the intense rivalry for market share (Hitt *et al.*, 2005; Carpenter and Sanders, 2009).

A competitor analysis will allow an organisation to understand (Hitt *et al.*, 2005; Carpenter and Sanders, 2009; Robbins and Coulter, 2009):

- what drives the competitor, as shown by its future objectives,
- what the competitor is doing and can do, as revealed by its current strategy,
- what the competitor believes about the industry, as shown by its assumptions,
- what the competitors capabilities are, as shown by its strengths and weaknesses.

By gaining this information about a competitor and their market activity, the information may be used (Carpenter and Sanders, 2007; Morden, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009):

- to construct a detailed competition analysis for the sector, segment, or market,
- to carry out a detailed evaluation of individual competitor activity,
- to forecast potential competitor response to market initiatives.

Through the use of a competitive analysis an organisation can identify competitive and marketing initiatives to build on corporate strengths and position itself to gain competitive advantage (Morden, 2007).

2.2.4.4 The Organisation's Internal Environment

Organisations realise that in a global landscape; traditional factors such as labour cost and a superior access to financial resources, and raw materials are no longer sufficient to create a competitive advantage (Hitt *et al.*, 2005; Carpenter and Sanders, 2009; Robbins and Coulter, 2009). The following items are driving the new landscape (Hitt *et al.*, 2005; Mellahi *et al.*, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009):

- *resources* consist of all the organisation's assets, capabilities, organisational processes, organisational attributes, information, and knowledge controlled by the organisation that enable it to conceive and implement strategies to improve its efficiency and effectiveness. Resources are inputs used by the organisation to create products and services.
- *capabilities* are complex bundles of skills and collective learning, which are exercised through organisational processes, that allow superior coordination of functional activities. Capabilities allow an organisation to integrate different tangible and intangible resources in order to provide products or services to customers that are valued.
- *core competencies* include the combination of individual technologies and production skills that underlie an organisation's production of products and services that critically underpin the organisation's competitive advantage. Core competencies are those resources and capabilities that form an organisation's strategic assets and lead to competitive advantage.

Organisations have identified the strong influence resources, capabilities, and core competencies have on strategic competitiveness and realised that above-average returns result only when core competencies of the internal environment are matched to the opportunities identified in the external environment (Hitt *et al.*, 2005; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

An internal analysis is utilised by an organisation to analyse the quantity and quality of an organisation's financial, human, and physical resources. It also identifies the strengths and

weaknesses of an organisation's managerial capabilities and its organisational structure and contrasts the organisation's past successes and traditional concerns with the organisation's current capabilities in an attempt to identify the organisation's future capabilities (Pearce and Robinson, 2005; Carpenter and Sanders, 2007; Carpenter and Sanders, 2009; Robbins and Coulter, 2009).

2.2.5 Strategic Decision-Making

Management is fundamentally a process through which organisational goals are achieved utilising resources. Resources are viewed as inputs, while the attainment of goals is viewed as the final output of the process. Managerial success is measured by the ratio of outputs to inputs indicating the organisation's productivity, and organisational and management performance (Turban *et al.*, 2007).

Organisational productivity or the success of management is entirely based on the performance of the managerial functions of planning, organising, directing, and controlling. To perform these managerial functions successfully, managers engage in a continuous process of making decisions (Turban *et al.*, 2007). To make a decision is to make a judgement concerning what to do in a certain situation after having deliberated on the alternative courses of action available (Harrison, 1996).

"At the heart of strategy lies decision-making" (Wilson, 2006). After a strategic analysis of the organisation's environment, internal capabilities and core competencies, and an investigation of technological shifts, managers must select the preferred course of action (Wilson, 2006). Managers need to examine the data, information, and intelligence before them and examine the possible alternatives and choose amongst them (Wilson, 2006).

Turban *et al.* (2007:48) define decision-making as *"a process of choosing among two or more alternative courses of action for the purpose of attaining a goal or goals."* Simon is of the opinion that managerial decision-making is synonymous with the whole process of management (Turban *et al.*, 2007). Decision-making is viewed as the essence of management (Robbins and Coulter, 2009). The managerial functions of planning, setting goals, organising, and controlling all involve decision-making (Turban *et al.*, 2007).

Decision-making is considered to be one of the most significant activities that managers engage in, within all types of organisations and on all levels. Decision-making epitomises the core behaviour of managers and clearly distinguishes managers from other occupations in society (Harrison, 1996; Robbins and Coulter, 2009).

Managerial decision-making has for many years been considered an art form acquired through experience and by using intuition. Many different individual styles were used in approaching and successfully solving similar types of managerial issues. The individual styles were most often based on creativity, judgement, intuition, and experience instead of systematic quantitative methods (Turban *et al.*, 2007).

Strategy may be regarded as the grand concept, but it is the individual strategic decisions that are important. Strategic decisions include the handful of decisions that drive or shape the organisation's actions. They are not easily changed once made, and have a large impact upon organisation's importance (Wilson, 2006).

Strategic decisions deal with the long-term welfare of the entire organisation. Strategic decisions most commonly fall in the sphere of top management. Strategic decisions made by top management constitute the strategy of the total organisation. The strategy is aimed at effectively matching or aligning the organisational capabilities with the environmental opportunities and threats. The decisions are often highly complex and involve a host of dynamic variables, with the pre-eminent characteristic being their significance. It is imperative that they result in a successful outcome (Harrison and Pelletier, 2001).

Strategic decisions result in dozens or even hundreds of further decisions at lower levels of management. Strategic decisions set the overall direction of decisions made by every other individual and unit throughout the organisation. Ineffective decision making at the top levels of management will affect the level of decisions made at the lower levels (Harrison, 1996).

Strategic Decisions can be identified and differentiated from normal decisions if they fulfil the following criteria (Harrison, 1996):

- The decision must be directed toward defining the organisation's relationship to its environment.
- The decision must take the organisation as a whole as the unit of analysis.

- The decision must encompass all of the major functions performed in the organisation.
- The decision must provide constrained guidance for all of the administrative and operational activities of the organisation.
- The decision must be critically important to the long term success of the total organisation.

In its simplest form, strategic decision-making can be considered an instantaneous action, a choice between multiple known alternatives, made by individuals or groups. However, this simple ideal is unable to capture the richness and complexity of the processes that lead up to the point of decision, the vast number of influences that impact on putting the decision into action, and the ultimate performance of the decision (Wilson, 2006; Robbins and Coulter, 2009).

People are aware that decision-making is not a simple process that occurs in linear sequence – a period of thinking followed by a period of acting. Decision-making and the development of alternative courses of action are fashioned in their doing. It is important to understand that factors such as previous experience and “gut-feel” are likely to have as much influence over strategic choices as strategic analysis and planning. It is imperative that valid, well-timed intelligence be provided at this stage to allow the most appropriate and informed decisions be made (Wilson, 2006; Robbins and Coulter, 2009).

Wilson (2006) has identified five different (and sometimes mutually exclusive) perspectives on strategic decision-making:

- Decision-making as a plan: a decision is a consciously intended course of action. It is a process which is carried out in advance of the action that follows and is developed with a clear purpose,
- Decision-making as a ploy: a decision from this perspective consists of a set of actions designed to outwit the competition and may not necessarily be the obvious choice,
- Decision-making as a pattern: not all decisions are taken with a clear planned purpose, and not all decision-makers have access to the full range of knowledge required to plan wholly in advance. Multiple decisions are taken over time and form a pattern. This pattern of emergent behaviour is referred to as the strategy of an organisation. Strategy is therefore characterised as a pattern which emerges from a stream of decisions,

- Decision-making as a position: the focus of decisions is about trying to achieve a match between the organisation and its environment. The position could be one of alignment where the organisation matches its environment, or one of trying to secure competitive advantage,
- Decision-making as a perspective: decisions can be characterised as a reflection of how strategists in the organisation see and perceive the world and their organisation.

Wilson (2006) argues that the process of making decisions can appear to be deceptively simple as actions are formulated toward the solution of a particular problem. Wilson (2006) furthers his viewpoint by explaining that the problem with this approach is that there may be discernable actions and there may be observable outcomes, but they need not be wholly related to each other. Problems may thus be solved by factors other than strategic decisions and, sometimes, taking a strategic decision could lead to a completely new set of problems (Wilson, 2006).

Turban *et al.* (2007) is of the opinion that decisions most commonly follow a four-step process of defining the problem, constructing a model that describes the real world problem, the identification of possible solutions to the modelled problem and evaluation of the solutions, and the final step of comparing, choosing, and recommending a potential solution to the problem. Harrison and Pelletier (2001), and Harrison (1996) identify the components of the strategic decision process model as the functions of decision-making which includes setting managerial objectives, searching for alternatives, comparing and evaluating alternatives, the act of choice, implementing the decision, and finally following up and controlling the decision.

Through the evaluation of alternative solutions, consequences of utilising the alternatives can be predicted, if comparisons are done properly. While this was simple to achieve in the past, in a static environment, various factors have increased the difficulty in evaluating the alternatives (Turban *et al.*, 2007). The reasons are (Turban *et al.*, 2007):

- technology, information systems, advanced search engines, and globalisation has resulted in more and more alternatives to evaluate,
- government regulation and the need for compliance, political instability and terrorism, competition, and changing consumer demands has produced more uncertainty, making it more difficult to predict consequences and the future,

- further factors include the need for rapid decisions, frequent and unpredictable changes make trial and error learning difficult, and the potential costs of making the wrong decision,
- environmental complexity is rising, making decision-making a complex task.

These trends and changes have resulted in management requiring sophisticated new tools and techniques to assist them in maintaining competitive advantage through comprehensive decision-making.

2.2.5.1 Phases of the decision-making process

Simon originally identified a systematic decision-making process involving three major phases: intelligence, design, and choice. Simon later included an implementation phase, while Turban *et al.* suggest a fifth phase which includes monitoring and feedback (Turban *et al.*, 2007).

Robbins and Coulter (2009) defined their decision-making process as including the identification of a problem, identification of decision criteria, an allocation of weights to the identified criteria, the development of alternatives, analysis of the alternatives, selection of an alternative and the implementation of the selected alternative. Robbins and DeCenzo (2008) identify the steps within the decision-making process as including identifying the problem, selecting a solution, and evaluating the effectiveness of the solution. They further identify a single problem as a discrepancy between two states, the existing state and the desired state of affairs. Furthermore, once the problem has been defined, decision criteria are to be identified. These decision criteria are factors that are relevant in the decision making process and could eliminate certain courses of action. The criteria are then weighted and the best outcome selected and implemented. The final step in their model includes the evaluation of the results to appraise whether or not their decision corrected the problem (Robbins and DeCenzo, 2008; Robbins and Coulter, 2009).

Simon's model is seen to be the most concise and complete characterisation of rational decision-making. The model includes a continuous flow of activity originating at the intelligence phase moving through design to choice to implementation while a return to the previous phase is possible (Turban *et al.*, 2007).

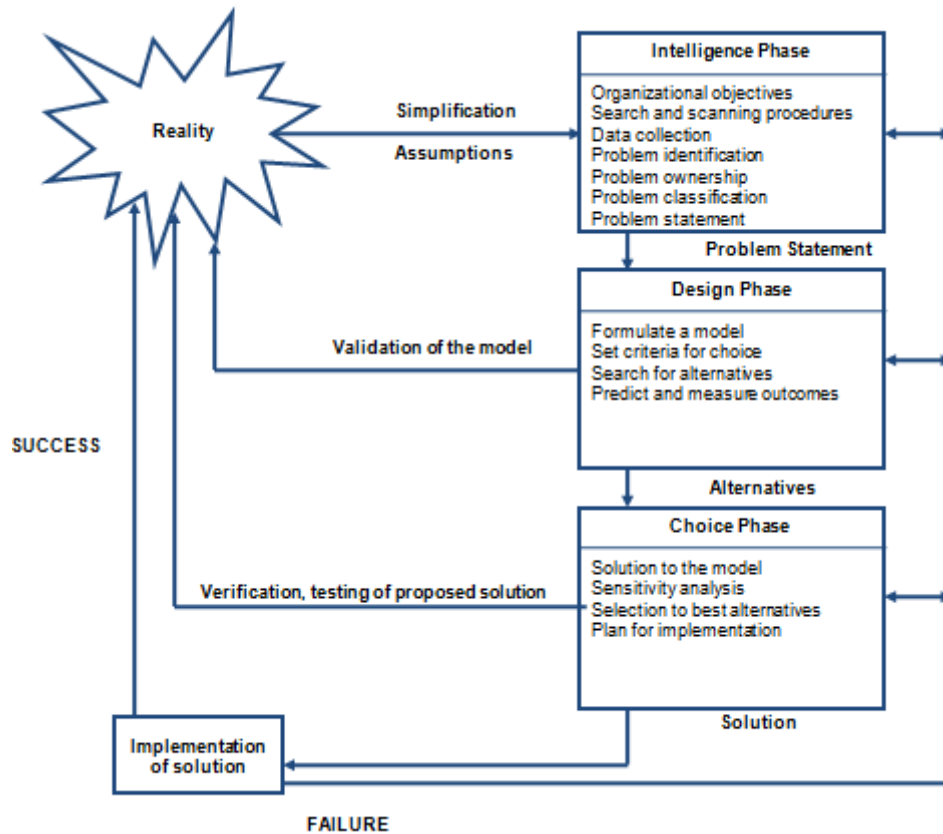


Figure 1 - The Decision-Making Process (Turban *et al.*, 2007:54)

The decision-making process begins with the intelligence phase, during which the decision-maker examines reality which identifies and defines problems. During the design phase, a model that represents the system is constructed by making assumptions which simplify reality, and identify of all relationships among the variables. The proposed model is validated and criteria evaluated which leads to alternative sources of action. The choice phase includes the selection of a proposed solution to the model, which is then tested to determine its validity (Turban *et al.*, 2007).

A major characteristic of decision-making is the use of a model, on which to analyse the effects of a decision on a model of reality rather than on the real system. Turban *et al.* (2007:51) define a model as “*a simplified representation or abstraction of reality.*” Models represent systems or problems utilising different degrees of abstraction. Models are classified based on their degree of abstraction (Turban *et al.*, 2007).

- Iconic (scale) models are the least abstract models. They are physical replicas of the system, but on a smaller scale than the original. An iconic model can be either three dimensional, such as a model of a bridge, or two dimensional, like a photograph.
- Analogue models act like the real system but do not look like it. It is a symbolic representation of reality, and is most often two dimensional charts or diagrams. Examples include blue prints, organisational charts, animations, videos and movies.
- Mental models are descriptive representations of decision-making situations that people form in their heads and think about. The individual's thought process works through the different scenarios to consider the feasibility and risks involved in each potential alternative.
- Mathematical models are utilised due to the complexity of relationships in organised systems which cannot be represented by iconic or analogue models.

The advances in computer technology have increased the use of both iconic and analogue models in conjunction with mathematical modelling. Combined, the models allow for easy manipulation, the compression of time, reduced cost, inclusion of uncertainty factors, enhance learning and training, most commonly through a web interface (Turban *et al.*, 2007).

If the proposed solution is found to be viable, the process moves onto the implementation phase. Successful implementation would result in the solving of the real problem, while failure will lead to a return to the earlier phases of the process (Turban *et al.*, 2007).

While the understanding of the decision-making process and the models that can be generated are critical components of decision-making within the management function, the foundation underlying organisational decision-making is the acquisition and use of information, intelligence and knowledge.

2.2.5.2 Information requirements of Strategic Decision-Making

Organisational decisions, especially those of a strategic nature, have widespread effects on organisational members, processes, and structure. Furthermore, these decisions are concerned with issues that can materially affect the organisations survival prospects, well being, and nature of the organisation. It is thus important to conceive the organisation's external and internal

environments to be a source of information. The organisation should scan the environment in order to make better informed decisions. Acquiring information and intelligence is an imperative in ascertaining environmental change and has huge implications for strategic decision-making (Frishammer, 2003).

Frishammer (2003) conducted a study to provide an insight into management information behaviour when taking strategic decisions. The study aimed to address questions such as the why, what, how, and when of the information-gathering process that underpins strategic decisions. These are discussed below (Frishammer, 2003):

- Why is information used in strategic decision-making? It was found that the widely accepted purpose of information use was to reduce or remove uncertainty. Uncertainty was further defined as the difference between the information process and the information required to complete a task or as inability to predict accurately what the outcomes of a decision may be. Information was found to be the base off which strategic decisions were made.
- What kind of information is used in strategic decision-making? Frishammer (2003) explained that information could be classified as either soft or hard. Soft information consisted of images, visions, ideas and cognitive structures. Soft information could also consist of many conceptual schemes in the form of frames of reference or worldviews, with further examples of soft information including gossip and hearsay. Soft information is tied to an individual person, and could be characterised as broad, general and subjective. In contrast, hard information is or could easily be quantified and processed with the assistance of analytical methods and tools. Hard information is generally expressed numerically and defined as numerical information generated, used, or reported in companies' financial accounting and control systems, calculation systems, cost accounting systems, production control systems, and various statistics. It was further found that strategic decisions depending on the situation would utilise different types of information, but that in most cases one type of information would at least to a limited degree be combined with the other. Most respondents to his study, it was found, started with soft information and then moved onto and utilised hard information as the process unfolded. Soft information further served as the base for interpreting which hard information was valid and relevant and which was not.

- How do decision makers obtain information? Previous research had shown that information was obtained through a solicited or unsolicited base. Solicited information included information explicitly sought by managers, and information given to managers through organisational requirements. Most respondents relied heavily on information received on a solicited basis but regarded unsolicited information as very important, even though rarely used.
- Where do decision-makers obtain information? Decision-makers used different information modes to learn about the environment. A distinction was made between external and internal sources of information. External sources originate outside the boundaries of the organisation, while internal sources were obtained within the organisation. These sources were further divided into personal and impersonal sources. Personal sources refer to direct human contact, which impersonal sources are written/non-verbal in nature. The study found that internal sources of information were preferred over external ones, with subordinates and customers being two of the most important sources.

Frishammer (2003) concluded his study by stating that an exclusive reliance on soft, internal information could endanger the quality of the decision and distance it from reality. He further argued that acquiring information from external sources could be a powerful tool for achieving organisation-environment alignment, but found that respondents believed that external sources are often difficult to reach, less accessible and time consuming to analyse. Lastly, he suggested that an ongoing monitoring of external sources would help decision-makers maximise limited resources and maximise uncertainty.

2.3 Intelligence Hierarchy

Change is constant – very little ever stays the same, even in the short term. Probing deeper into any subject matter will reveal some element of change, even if the subject matter seems unchanged at the surface. Individuals transform or grow over time, as do organisations, if their goal is long term survival. Incremental improvement through individual learning can lead to organisational transformation (Liebowitz, 2006a). He (Liebowitz, 2006a) further continues to state that individual transformation is an important component leading to organisational transformation and heightened Organisational Intelligence (Liebowitz, 2006a). Organisational transformation is important to increase the “intelligence” of the organisation (Liebowitz, 2006a).

Liebowitz (2006a:6) refers to Organisational Intelligence as “*the collective assemblage of value-added benefits derived from the organisation’s intangible assets (knowledge from employees, management, stakeholders, and customers)*”. To increase the IQ of an organisation, one first needs to understand the hierarchy of components that contribute to the intelligence of an organisation (Liebowitz, 2006a).

The concept of an intelligence hierarchy is discussed exhaustively in literature, and while most authors agree about the sequential base of the hierarchy in the form of data as the base, with information as the second layer, and knowledge as the third, there is much debate as to the levels that follow (Post and Anderson, 2003; Haag *et al.*, 2007; Laudon and Laudon, 2003; Laudon and Laudon, 2007; Bali, Wickramasinghe, and Lehane, 2009). Tobin (1996) for example, identifies the higher level as Wisdom in his hierarchy, while Beckman (1997) proposes a five level hierarchy where Expertise and Capability form the higher levels. For the purpose of this paper, the researcher will utilise the intelligence hierarchy model defined by Liebowitz (2006a).

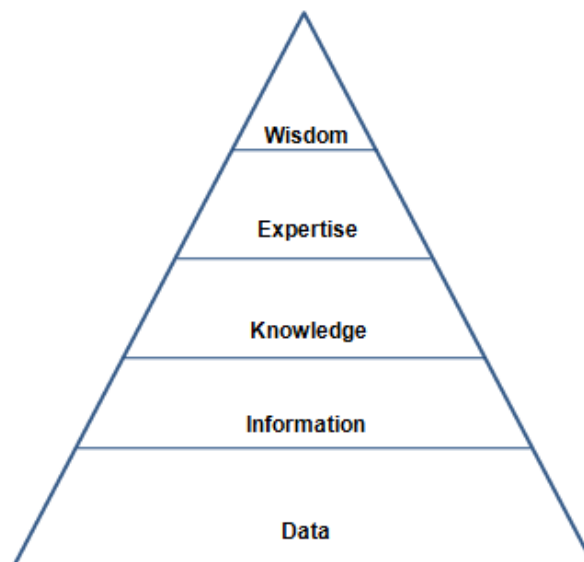


Figure 2 - The Intelligence Hierarchy (Liebowitz, 2006a:7)

Liebowitz (2006a:7) explains his hierarchy and how each level builds onto each other as follows:

“Data relates to discerned elements. Once the data is (sic) patterned in some way, it becomes information. Information plus insight and experience becomes knowledge. Knowledge in a specialised area becomes expertise. Expertise morphs into the nirvana state of wisdom after many years of experience and lessons learned.”

This research will continue to explore the relationship between the first three levels within this hierarchy, comprised of data, information, and knowledge to arrive at a set of fundamental definitions, and the relationship of each term with each other:

- Data: Bali *et al.* (2009:5) is of the opinion that data can be viewed as “*a series of discrete events, observations, measurements or facts that can take the form of numbers, words, sounds and/or images*”, while Laudon and Laudon (2007:10) define data as “*streams of raw facts representing events occurring in organisations or the physical environment before they have been organised and arranged into a form that people can understand and use*”. Haag *et al.* (2007:6) identifies data as “*raw facts that describe a particular phenomenon*”.

Davenport and Prusak (2000:2) view data as:

“Data is a set of discrete, objective facts about events. In an organisational context, data is usefully described as structured records of transactions”

Data can thus be viewed as the basis for information and knowledge.

- Information: The meanings and definitions of the term differ from author to author. Post and Anderson (2003:5) believe information “*represents data that has been processed, organised, and integrated to provide more insight*” while Laudon and Laudon (2007:10) identify information as “*data that have been shaped into a form that is meaningful and useful to human beings*”. Haag *et al.* (2007:6) believes information “*is simply data that have a particular meaning within a specific context*”, while Bali *et al.* (2009:5) view information as “*data that has been arranged into a meaningful pattern and thus has a recognisable shape; i.e. data that has been endowed with relevance and purpose*”.

Davenport and Prusak (2000:3) further believes that “*Information is meant to change the way the receiver perceives something, to have an impact on his judgement and behaviour. It must inform, it is data that makes a difference*” which identifies the role which individuals play in the provision, creation, and harvesting of information.

Davenport and Prusak (2000) argue that data becomes information when a specific meaning is added to it, and as such value can be added to data in order to create information. These methods are (Davenport and Prusak, 2000:4):

- **Conceptualised** – it is known for what purpose the data was gathered;
- **Categorised** – the unit of analysis or key components of the data is known;
- **Calculated** – the data may have undergone mathematical or statistical analysis;
- **Corrected** – errors have been removed from the data;
- **Condensed** – the data may have been altered or summarised into a mere concise form.

Information can further be transformed into knowledge.

- Knowledge: Post and Anderson (2003:5) express the viewpoint that knowledge “*represents a higher level of understanding including rules, patterns, and decisions*”. Turban *et al.* (2007:482) defines knowledge as “*information that is contextual, relevant, and actionable*”, and argues that “*humans are also capable of wisdom, where they put knowledge, experience, and analytical skills to work to create new knowledge and adapt to changing situations.*” Bali *et al.* (2009:5) believe that the definition by Davenport and Prusak (1998), while often referenced, is the most valid:

“Knowledge is a fluid mix of framed experiences, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organisations, it is often embedded not only in documents or repositories but also in organisational routine, processes, practices and norms.”

To create wisdom, which is the connection made between one’s own beliefs and information from knowledge, requires human interaction and analysis, while the application of wisdom leads to insight or intelligence which influences continuous innovation. Bali *et al.* (2009: 5) consider wisdom as “*a process by which we are able to discern, or judge, between right or wrong, good and bad. In essence, it embodies more of an understanding of the fundamental principles embodied within the knowledge that are essentially the basis for the knowledge being what it is.*” With the abundance of information available, much research has been done to understand how relevant intelligence can best be gathered to assist in strategic decision making. Wisdom is the human ability to learn from experience and adapt to changing conditions (Post and Anderson, 2003).

2.4 *Intelligentsia*

Intelligentsia is a collective term incorporating the various forms of intelligence that are identified for use within an organisation, and include artificial intelligence, business intelligence, competitive intelligence, strategic intelligence, and knowledge management (Liebowitz; 2006a). Liebowitz (2006a) was so intrigued that many new forms of intelligence were emerging (artificial intelligence, business intelligence, competitive intelligence) that he sought a way to consolidate and synthesise the various types of intelligentsia into a meaningful framework. The figure below depicts Liebowitz's framework of Intelligentsia and how they relate to each other.

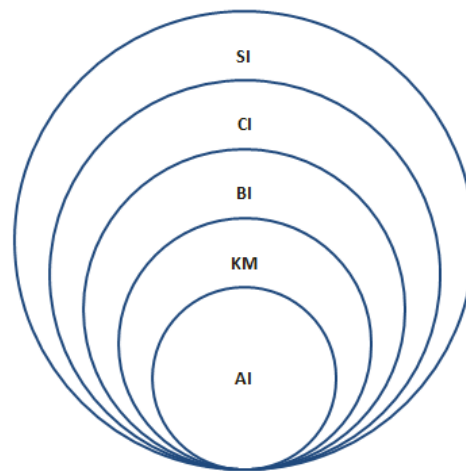


Figure 3 - Framework of Intelligentsia (Liebowitz, 2006a:14)

The inner layer refers to Artificial Intelligence, which is a field of developing intelligent systems to support, or in extreme cases, replace the decision maker. Intelligent computing power is built to supplement human brain power, and further identifies how human learning, thinking, explaining, and other cognitive processes take place. Typical applications of Artificial Intelligence include expert or knowledge-based systems, natural language processing, case-based reasoning, speech understanding, robotics, computer vision, neural networks, generic algorithms, and hybrid intelligent systems (Liebowitz, 2006a).

Liebowitz (2006a) included Artificial Intelligence in his discussion due to the benefits that Artificial Intelligence Techniques could offer to the other layers of intelligentsia, and concludes that while benefits could be seen by utilising Artificial Intelligence techniques, it does not necessarily mean that the other intelligentsia will use Artificial Intelligence techniques in practice.

Artificial Intelligence was included by the researcher for comprehensiveness as it forms part of Liebowitz's framework and as such will not be investigated further.

Knowledge Management is the next layer of the framework. Knowledge Management identifies how an organisation can best leverage its knowledge to innovate, retain critical knowledge, build camaraderie and a strong sense of belonging, and improve worker productivity. Artificial Intelligence techniques could be utilised to improve the capturing, organising, and sharing of knowledge by individuals (Liebowitz, 2006a).

Business Intelligence, the third layer of the intelligentsia framework investigates how the organisation can deal with internal information effectively, and improve corporate performance, and align execution with strategy. Competitive Intelligence forms the next layer by utilising both internal and external information, and knowledge to develop a systematic and ethical program to manage, analyse and apply this information and know-how for improving organisational decision making. The aggregation of the various intelligentsias, the final layer, consists of Strategic Intelligence, which assists organisations to best make strategic decisions (Liebowitz, 2006a).

The concepts of Business Intelligence, Competitive Intelligence, Knowledge Management, and Strategic Intelligence will be discussed in the following sections in terms of their relevance, when utilised in conjunction with each other, to increase the strategic decision-making ability of South African organisations.

2.4.1 Business Intelligence

Consensus on the definition of the concept "Business Intelligence" has not been reached in literature. Haag *et al.* (2007:85) defines Business Intelligence (BI) in broad terms as "*knowledge about your customers, your competitors, your business partners, your competitive environment, and your own internal operations that give you the ability to make effective, important, and often strategic business decisions*" while Turban *et al.* (2007:24) define Business Intelligence as "*an umbrella term that combines architecture, tools, databases, analytical tools, applications, and methodologies*" that "*give business managers and analysts the ability to conduct appropriate analysis*" on historical and current business data. Davenport and Harris (2007:12) concur by identifying Business Intelligence as incorporating "*the collection, management, and reporting of decision-orientated data as well as the analytical techniques and computing approaches that are performed on the data.*" The Knowledge Management and Business Intelligence (KMBI) Workshop define Business Intelligence as an "*active model-based, and prospective approach to*

discover and explain hidden, decision relevant aspects in large amounts of business data to better inform business decision processes" (KMBI, 2005). The first definition by Haag *et al.* encompasses both the external as well as the internal environment of the organisation, and includes aspects covered by the fields of market and competitive intelligence whereas the last two definitions focus on the internal data generated by business processes and transactions.

Since the development of business, business stakeholders have tried to understand and identify revenue trends and customer preferences through the use of numbers and transactions, in an attempt to adapt their products and services to the requirements of the marketplace and gain market share from their competitors. The invention of the computer has made this task easier but at the same time increased the data generated from financial, manufacturing, sales, and supply chain systems requiring effective means of analysing the data (Rasmussen *et al.*, 2002; Chung, Chen and Reid, 2009; Knilans, 2009).

The concept of Business Intelligence is rather old with its roots in the Management Information Systems (MIS) of the 1970s. Management Information systems were static, two dimensional with no analytical capabilities. During the 1980s Executive Information Systems (EIS) emerged and expanded computerised support to strategic-level management. Features introduced were dynamic multidimensional reporting, forecasting and prediction, trend analyses, drill-down and critical success factors. Commercial products appeared in the nineties with the same features and later developed into today's Business Intelligence Systems. From 2005 many systems included a form of Artificial Intelligence and powerful analytical capabilities (Davenport and Harris, 2007; Turban *et al.*, 2007; Zaman, 2005; Rasmussen *et al.*, 2002).

Turban *et al.* (2007:24) explain that Business Intelligence's major objective is to enable interactive access (sometimes in real-time) to data; to enable manipulation of data; and to give business managers and analysts the ability to conduct appropriate analysis. Through the analysis of historical and current data, situations and performance metrics, decision makers can get valuable insights that will allow them to make more informed decisions (Zaman, 2003; Chung *et al.*, 2009). BI enables organisations to extract the true meaning of information to take creative and powerful steps to attain competitive advantage through the ability to make strategic business decisions (Haag *et al.*, 2007). BI improves the timeliness and quality of input to the decision process (Negash and Gray, 2003).

Based on the results of a survey, Thompson (2004) indicated the following as major benefits of Business Intelligence:

- faster, more accurate reporting
- improved decision making
- improved customer service
- increased revenue.

Thompson (2004) further mentions that the most common application areas of Business Intelligence are general reporting, sales and marketing analysis, planning and forecasting, financial consolidation, statutory report, budgeting, and profitability analysis. Nagash and Gray (2003) maintain that the various tasks of Business Intelligence include:

- creating forecasts based on historical data, past and current performance, and estimates of the direction in which the future will go;
- what-if analysis of the impacts of changes and alternate scenarios;
- ad-Hoc access to the data to answer specific, non-routine questions; and
- strategic insight.

A survey by the Gartner Group ranked the strategic uses of Business Intelligence in the following order of importance (Haag *et al.*, 2007):

- 1) Corporate Performance Management;
- 2) Optimising Customer Relations, monitoring business activity, and traditional decision support;
- 3) Packaged stand-alone Business Intelligence applications for specific operations or strategies; and
- 4) Management reporting of Business Intelligence.

Business Intelligence thus transforms data into useful information, and through human analysis, into knowledge (Negash and Gray, 2003). Haag *et al.* (2007) maintains Business Intelligence systems provide managers with actionable information and knowledge:

- at the right time,
- in the right location,
- in the right form.

However, the provision of actionable Business Intelligence to management requires infrastructure of both a technical and non-technical nature to house the business intelligence system.

2.4.1.1 The Architecture of Business Intelligence

Organisations would require both a technical and a non-technical architecture to house its business intelligence system. The technical architecture would include hardware, middleware, and database management systems. The non-technical architecture would include standards, the definition of meta-data, business rules and policies (Moss, 2003; Negash and Gray, 2003).

A Business Intelligence system includes four major components (Davenport and Harris, 2007; Turban *et al.*, 2007; Chung *et al.*, 2009):

- A ***data warehouse*** which is a special database or repository of data containing all the source data from various operational systems prepared to support decision making applications. Formally the data warehouse only included historical data that was organised and summarised for easy viewing and manipulation, now data warehouses include current data providing for real time decision support. Data from data warehouses can be extracted into data marts, which are repositories of specialised data on a specific topic or department.
- ***Business analytics*** is a term given for a collection of tools used for manipulating, mining, and analysing data in a data warehouse. These tools and techniques fit into three categories:

- **reports and queries** which include static and dynamic reporting, many types of queries, the discovery of information, multi-dimensional views, and the ability to drill down to more details,
- **advanced analytics** including statistical, financial, mathematical, and other models used in the analysis of data and information,
- **data, text, and web mining, and other sophisticated mathematical and statistical tools** which are used in a process of searching for unknown relationships or information utilising intelligent tools such as neural computing, predictive analysis techniques, or advanced statistical techniques.
- **Business performance management (BPM)** is defined within Turban *et al.* (2007:386), by the BPM Standards Group (2005) as “*a framework for organising, automating, and analysing business methodologies, metrics, processes, and systems to drive the overall performance of the enterprise. It helps organisations translate a unified set of objectives into plans, monitor execution, and deliver critical insight to improve financial and operational performance*”. BPM is based on the Balanced Scorecard methodology, which is a framework for defining, implementing, and managing an organisation’s business strategy through the linking of objectives with factual measures for comparing sales, profits, cost, profitability, and other performance indicators, essentially linking top-level metrics and targets with actual performance.
- **User Interface:** Dashboards create a comprehensive visual view of business performance metrics, trends, and exceptions. Dashboards integrate information from numerous business divisions and display graphs showing actual performance in comparison to targeted metrics enabling a single view on the health of the organisation.

In combination, these components are utilised to gather structured information as the below figure displays:

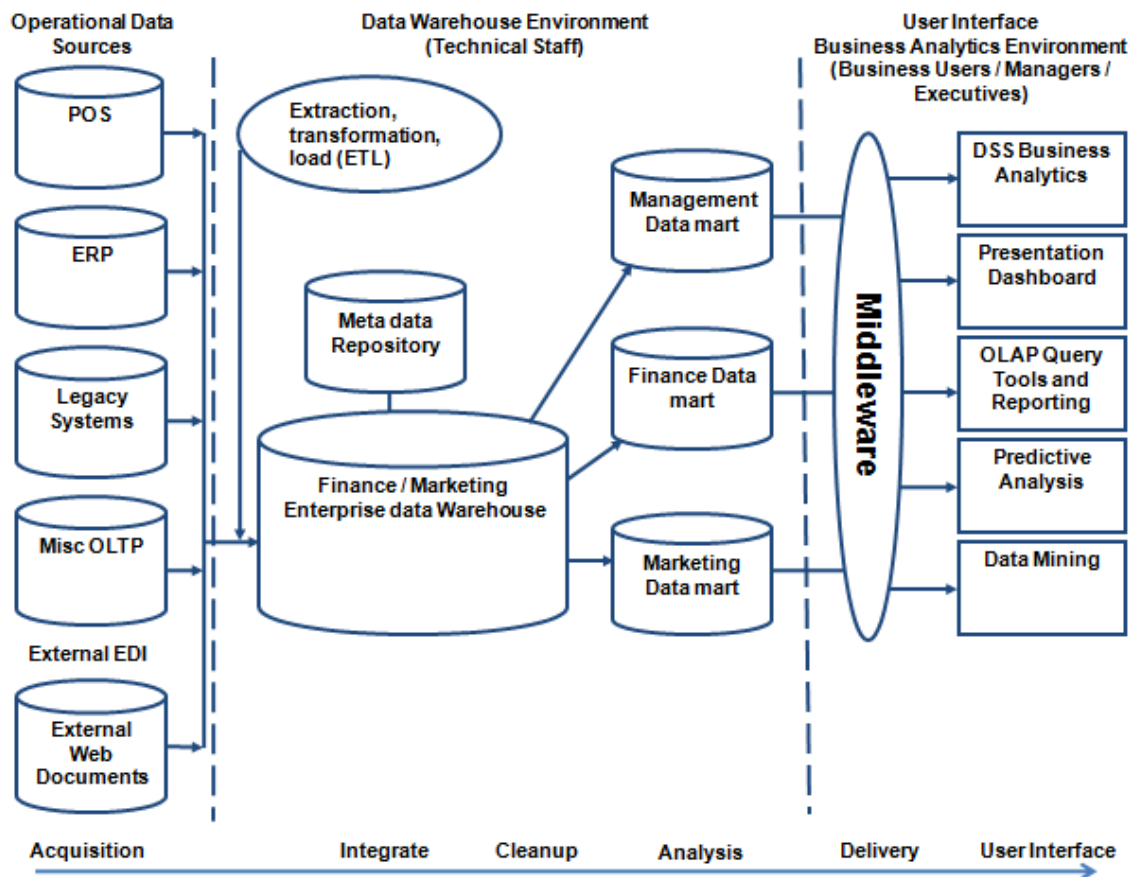


Figure 4 - Business Intelligence Architecture (Negash and Gray, 2003)

The figure above displays in a simplified manner the components of a Business Intelligence environment. Data is acquired for the system from the organisations operational data sources which include Point of Sale systems, Enterprise resource applications, legacy systems, and other internal and external sources of organisational data. The historical data is then extracted from these systems and transformed and finally loaded into Data repositories or Data Warehouses. Specific elements or topics of the data are often extracted from the larger data warehouse into specific data marts for specific purposes. The historical data contained in the data warehouse or data mart is then delivered and made available to end users through a User Interface in which the user can manipulate, mine and report on the historical data (Turban *et al.*, 2007).

An important aspect of a successful Business Intelligence implementation is that it needs to benefit the entire organisation, and as such it is likely that a large number of users will be involved from the onset of the organisation. A survey by the Gartner Group (Turban *et al.*, 2007) distinguishes six types of users identified in the below table:

Table 1 - Types of Business Intelligence users

<i>Types of Users</i>						
<i>Functionality</i>	<i>IT</i>	<i>Power Users</i>	<i>Executives</i>	<i>Functional Managers</i>	<i>Occasional Information Consumers</i>	<i>Extranet: Partners and Customers</i>
<i>Number of Users</i>	Few	Dozens	Dozens	Dozens to Hundreds	Hundreds to thousands	Hundreds to thousands
<i>BI tools and functions</i>	Developer, administrator, metadata, security, data management	Ad Hoc query, OLAP reports, data mining, advanced analysis	Dashboard, scorecard, reports, CPM	Reports, Spreadsheets, OLAP view, business activity monitoring, corporate performance management	Reports, Spreadsheets	Reports
<i>Strategic Value</i>		High	High	Medium	Low	High

Source: Turban et al. 2007.

The Data Warehousing environment is the responsibility of the Information Technology department, and the analytical environment is the domain of the business users who connect to the system through a user interface such as a web browser, a BPM Component or a Dashboard (Turban *et al.*, 2007; Haag *et al.*, 2007; Negash and Gray, 2003).

Foody (2009) however, contends that traditional Business Intelligence tools, offer little insight to employees. He further believes that for Business Intelligence systems to truly deliver the intended benefits, certain enhancements are required to complement user processing needs (Foody, 2009). Foody (2009) advises that “*user-centered Business Intelligence need combine the strengths of self-service technology advancements with computer-aided cognition to support problem-centered decomposition of business problems*”, and “*require a new approach to data understanding, collection, indexing, and access – one that is faster, multifunctional, dynamic, and easier to use.*”

2.4.2 Competitive Intelligence

Individuals, when confronted with the term competitive intelligence often assume industrial espionage or corporate spying, due to the original roots within military intelligence (Liebowitz, 2006a; Calof and Wright, 2008).

Business Intelligence has been identified as being focused on internal, quantitative data and Competitive Intelligence or Market Intelligence can be said to focus on external, qualitative data collected regarding the organisation's external competitive environment (Liebowitz, 2006a; Britt, 2006; McGonagle and Vella, 2002). Competitive Intelligence consists of the analysis of information gathered from the market place and the generation of recommendations for decision makers, done in an ethical and legal manner (Miller, 2000). Competitive Intelligence is involved with the development of a systematic program for capturing, analysing, and managing external information and knowledge to improve organisational decision-making capabilities (Liebowitz, 2006a; Calof and Wright, 2008; Jones, 2009).

2.4.2.1 Defining Competitive Intelligence

Many definitions exist for the terms market and competitive intelligence. Ettorre (1995:17) identified Market Intelligence as *“a process of knowing what the competitors are up to and staying one step ahead of them, by gathering actionable information about the competitors and ideally, applying it to short and long term strategic planning.”* Tan and Ahmed (1999:298) further advised that Market Intelligence should be defined by being *“viewed in its totality as a continuing and interacting structure of people, equipment, and procedures to gather, sort, analyse and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation and control”* whereas Huster (2005) regarded Market Intelligence as *“the ability to fully understand, analyse, and assess the internal and external environment associated with customers, competitors, markets, industry and use the acquired knowledge for long and short term strategic planning.”*

Calof and Skinner (1998) defined Competitive Intelligence as *“the art and science of preparing companies for the future by way of systematic knowledge management process. It is creating knowledge from openly available information by use of a systematic process involving planning, collection, analysis, communication and management, which results in decision maker action”*, and McGonagle and Vella (1999:212) further defined Competitive Intelligence as *“The use of public sources to locate and develop data that are then transformed into information, generally about competition, competitors, and the market environment in the broadest sense”*, where as Hoffman (2006) simply adds that Competitive Intelligence *“is a structured, judicious method of informing business strategy”* and that *“it's an innovation engine that draws better business outcomes”*, while Calof and Wright (2008) regard Competitive Intelligence as *“a system of environmental scanning which integrates the knowledge of everyone in the company”*.

The interpretations given above are important but a further definition given by the Society of Competitive Intelligence Professionals (SCIP, 2007) is useful to know due to its backing by Competitive Intelligence Professionals and as such will be used in this research to define Competitive Intelligence:

“A systematic and ethical program for gathering, analysing, and managing external information that can affect a company’s plans, decisions, and operations”

While each author defines the concept of Market Intelligence or Competitive Intelligence in their own terms, the similarities amongst the terms are great. The researcher will thus propose that the two terms define the same concept and utilise the term Competitive Intelligence to describe the concept. All authors describe Market and Competitive Intelligence as an ethical and legal business practice and focus on the gathering of information of the external business environment, which is converted into intelligence and utilised in business decision making (McGonagle and Vella, 2002).

2.4.2.2 Benefits of Competitive Intelligence

Many organisations fail to use market information that is freely available to them (Malrz and Kohli, 1996). This issue has resulted in greater emphasis on Competitive Intelligence due to competing organisations having access to the same intelligence (Malrz and Kohli, 1996). Buhler (2003) maintains that organisations need to depend on information for their survival (Buhler, 2003).

The challenge is thus to make fast, informed, less risky, and confident, correct decisions on a regular and unending basis, based on meaningful information that allows the decision maker to be aware of and act on changes in the competitive environment (Vibert, 2001; Britt, 2006; Tarraf and Molz, 2006). The foundation of good intelligence is to provide the necessary intelligence to the decision maker, in time to make a difference, and in time to take the correct actions (Nolan, 1999; Hoffman, 2006). The true difference among organisations is no longer based on the information they acquire, but rather how they interpret, disburse and exploit the information (Buhler, 2003). The ability to use correctly this information is the source of an organisations competitive advantage (Malrz and Kohli, 1996; Buhler, 2003).

Competitive Intelligence is increasingly being considered as an important, mandatory component of each organisation's overall strategy and functioning. Competitive Intelligence has the ability to boost an organisation's bottom line if used and developed in the correct way, based on the organisation's needs, internal organisation and competitors (McGonagle and Vella, 2004). Competitive Intelligence has earned its rightful position as an acknowledged business discipline and has become a major technique for achieving competitive advantage (Viviers and Saayman and Muller, 2005).

Competitive Intelligence's purpose is thus to gain strategic advantage, and includes competitor intelligence, as well as intelligence gathered on customers, suppliers, technologies, environments, and business relationships, which gives the ability to predict movements in the competitive environment, reducing the uncertainty of managerial decisions (Viviers and Saayman and Muller, 2005).

The ultimate goal of Competitive Intelligence is to provide actionable intelligence which consists of information that has been synthesised, analysed, evaluated and conceptualised. To achieve this goal, organisations need to create a corporate culture promoting a culture of competitiveness, allowing for the exchanging of knowledge and ideas among individuals and departments (Viviers and Saayman and Muller, 2005).

By achieving the above mentioned goal, Competitive Intelligence serves the following primary purposes (Tan and Ahmed, 1999; Calof and Wright, 2008):

- Competitor profiling, benchmarking, assessment and tracking;
- Market, industry, political, customer, supplier, and technological profiling, benchmarking, and assessment;
- Early warning of opportunities and threats;
- Support for strategic planning and implementation; and
- Support of strategic decision making.

Hoffman (2006) explains that *"Competitive Intelligence offers a framework that helps companies break away from the pack"*. Hoffman (2006) further identifies the need for Competitive Intelligence as a means

for scanning rival organisations for threats allowing the organisation to be optimally configured and positioned to confront threats and adapt instantly to changes in the competitive environment, which if done optimally will result in significant value for the organisation overriding the costs of the Competitive Intelligence process.

However, to initialise a Competitive Intelligence undertaking within an organisation, Whitmore (2009) suggests the following steps: Define your organisation's meaning of Competitive Intelligence, Define the role which Competitive Intelligence will play in your organisation, Define the context of Competitive Intelligence for your organisation, initialise proceedings by conducting a SWOT analysis, Conduct Scenario Planning, Self-Promote, Explore your external and internal environments, Determine key intelligence topics, Outfit your tools arsenal, and attend tradeshows and follow online mediums.

2.4.2.3 The Competitive Intelligence Process

The Competitive Intelligence Process is a cyclic process consisting of key areas classified into various steps which follow one another, completing each step before moving onto the next (Viviers and Saayman and Muller, 2005). The key steps or stages identified in the literature are (Saayman, Pienaar, de Pelsmacker, Viviers, Cuyvers, Muller and Jegers, 2008; Wright and Calof, 2006; Hoffman, 2006; Viviers and Saayman and Muller, 2005; McGonagle and Vella, 2002; McGonagle and Vella, 1999; Nolan, 1999):

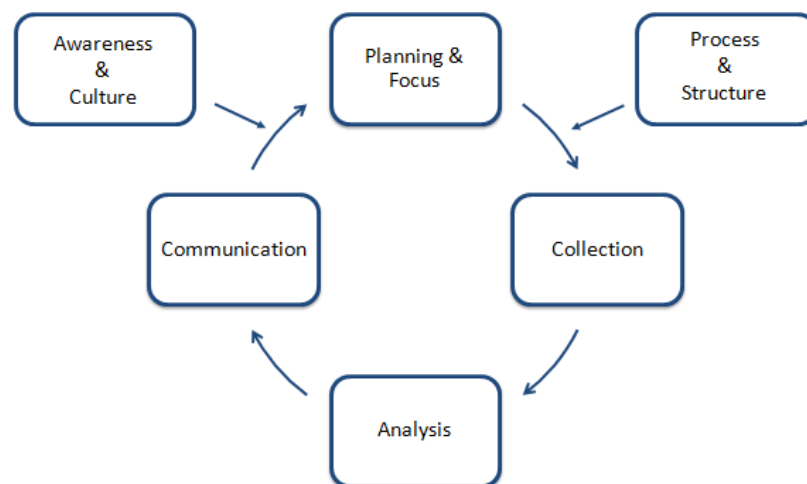


Figure 5 - Competitive Intelligence Process

- **Planning and Focus:** Authors describe the first step in the Competitive Intelligence process as the most important within the entire process. During this phase the Key Intelligence needs or topics are defined and focused on. The Key Intelligence needs are those set and revised by management, on which management needs to be regularly informed so as to base decisions and strategic initiatives on. This phase provides guidance on resources required to complete the task and establishes the purpose and required results.
- **Collection:** During the collection phase of the process, information is collected from numerous sources (both primary and secondary) utilising a large number of available techniques. Through the identification of needs, sources can be identified depending on constraints such as time, financial, organisational, informational and legal issues. Successful Competitive Intelligence initiatives focus solely on what information is important and relevant, and within ethical and legal boundaries.
- **Analysis:** The information collected during the collection phase is converted into “actionable intelligence” from which decisions can be made. The transformation is done through a process of firstly selection, during which it is decided what information gathered from sources is relevant, and secondly by adding value to the data gathered. This is the core activity in the process which often builds on outputs from market research or product development. For the analysis to be complete and relevant a variety of analytical tools should be used, including PEST (political/legal, economical, social-cultural, and technological analysis), Porter’s Five Forces Model, SWOT (Strength, Weakness, Opportunity and Threats) analysis, and competitor profiling. Gilad and Gilad (Hoffman, 2006) explain that the analysis process comprises six stages including collecting data, condensing information, drawing conclusions, building scenarios, studying implications for competitive positioning, and suggesting recommendations for action. Analysis includes the testing of information and sources for reliability, accuracy, timeliness, and completeness.
- **Communication:** After the completion of the analysis phase, the results are formatted in presentable form and communicated to those with the appropriate authority, and responsibility to act on the intelligence. The intelligence should

provide answers to the Key Intelligence Needs identified earlier, and be provided on time for action to be taken.

- **Process and Structure:** A number of authors agree that Competitive Intelligence requires appropriate policies, procedures, and a formalised infrastructure allowing employees to contribute effectively to the Competitive Intelligence process, so as to gain benefits from the same process.
- **Organisational awareness and culture:** For Competitive Intelligence to be implemented successfully, the organisational culture needs to be aware and supportive of the function. Without the right environment, which is conducive to the functioning and gathering of intelligence, it would be difficult to achieve the desired goals. This can only be achieved through constant education of the concept Intelligence and the function of the Competitive intelligence process.

Tan and Ahmed (1999) separate Competitive Intelligence into four broad categories of analysis depending on the demand from the organisation:

- **Ad-hoc analysis** which is performed only when requested or in response to an event in the market place. It occurs only once, based on a specific need or topic, and requires no formal staff or department,
- **Project based analysis** is performed by a project team to understand the impact of a competitor on a specific project,
- **Continuous-focused analysis** occurs on a continuous basis and is performed by a formal Competitive Intelligence department with the purpose of sourcing answers to narrowly defined specific key intelligence needs supplied by decision makers,
- **Continuous-comprehensive analysis** is performed by a formal Competitive Intelligence department on an on-going basis, investigating broad competitive forces that shape the organisations industry. An assessment of the entire external environment provides outputs for this analysis.

An effective analysis should explore the entire external environment, including the general and task environment, and not be limited to competitors only. A complete analysis will assist in

shaping the appropriate strategy for the organisation by detecting trends that should be monitored and assessed (Buhler, 2003; Murphy, 2005).

The general environment includes the technology segment, social segment, economic segment, and the political/legal segment. An analysis of the general environment will indicate how trends could affect the individual organisation, as the impact could vary across organisations. By completing this analysis, uncertainty of the future can be diminished (Buhler, 2003; Murphy, 2005).

The task environment, referred to as the industry in which the organisation competes, has the most influence on the organisation, as it includes all organisations with which the organisation interacts or competes. The industry is comprised of a number of stakeholders, all of whom have a stake in the organisation. The stakeholders include the organisations suppliers, customers, creditors, the government, the local community, competitors, and the employees of the organisation. The organisation must monitor all stakeholder groups to ensure a complete picture is obtained (Buhler, 2003; Murphy, 2005).

2.4.2.4 The Data Acquisition Process

Once an understanding is gained regarding what information is to be focused on, management should ensure the information search is conducted towards obtaining information that will allow for the analysis of competitors and the environment (Tan and Ahmed, 1999; Calof and Wright, 2008).

The essential information should allow (Tan and Ahmed, 1999; Rajaniemi, 2007; Calof and Wright, 2008):

- **Analysis of ownership structure** determining the structure of ownership, costs, asset composition, financial ratios, financing sources, and cash flow,
- **Analysis of key indicators** identifying the competitors industry, revenues, sales, customers, markets, products, and services,
- **Analysis of competitors position** identifying competitor's prices, production costs, and costs to sell products or services,

- **Analysis of current strategies** identifying competitors' current strategies and tactics, reasons for pursuing the given strategy and tactics, and any opportunities or threats presented by the competitors' strategies or tactics,
- **Analysis of future strategies** to develop scenarios of potential future competitor strategies or tactics and any opportunities or threats that result from them,
- **Analysis of the external environment** identifying any significant events in the external environment which could lead to identifying opportunities or threats.

There are many sources of competitive data and they can be places into one of the following two categories – Primary or Secondary data (Rajaniemi, 2007; Tan and Ahmed, 1999; Wilkens, 2007; West, 2001):

- **Primary Data** originate directly from the source. This would include data straight from the competitor or people who know of and have an impact on the competitor. The Primary Data could include interviews with the competitor's former employees, customers, suppliers, agents, or experts in the industry.

In conducting primary data research one should remember the laws governing companies. Laws and regulations require organisations to make information public regarding the exchange of currency or capital.

Competitors thus provide annual reports, stockholder communications, and financial press releases to the public domain which are a valuable source of primary data.

Further sources of Primary Data include:

- speeches by Chief Executive Officers and Top Management
- articles, research papers, or books authored by employees
- organisations website content
- patents and commercial registry findings
- surveys and interviews
- remote analysis

- building permits
- internal employees that joined from competitors
- sales and marketing staff
- members of professional associations
- delegates to trade and industry associations
- staff attending conferences, seminars, exhibitions and trade shows which allow for the examination of competitors products, identification of features being promoted, collection of brochures, product descriptions, company handouts, and listening to the competitor's current sales pitch.
- reverse Engineering

Further sources include questioning the competitors directly, through the questioning of competitor staff. The execution of method has increased in difficulty owing to the awareness of competitors to the use of competitive intelligence and has resulted in organisations heightening the security around the information they communicate by utilising counter-intelligence methods.

- **Secondary Data** originate from sources of information which is at least once removed from the source. These sources are defined as being publicly available while not always readily available. Analysts rely heavily on secondary sources, but limits exist to the depth to which they can legally and ethically probe leaving them with enough intelligence to mine. Secondary Data sources are the first source to be consulted in intelligence gathering programmes and vary in usefulness, timeliness, and accuracy but provide a low cost and reasonably comprehensive method of acquiring intelligence.

First sources to be consulted should be those available internally. These are identified through a thorough intelligence audit that would identify internal sources, categorise the data, collect and examine what is provided by the identified internal sources, establish the sources from which the intelligence is provided, and establish whether the intelligence can be updated or extended.

The audit would cover fixed sources including books, documents, files and reports, which cover and provide intelligence from a finite period. Renewable sources are automatically updated and include data feeds, subscriptions to journals and trade press, online databases, and competitor websites.

Internal sources covered by the audit could include the internal corporate library's files, market research reports purchased or commissioned, outward facing staff who collect information on the market or competitors, trade association reports and statistics, and internal sales representatives' reports.

External Secondary sources consist of a vast array of sources that can be consulted allowing for a comprehensive survey of markets and competitors. Secondary intelligence is physically located in three types of sources including libraries, databases, and more recently, the internet.

Key sources include:

- official company filings including annual reports, stock exchange and SEC filings, prospectuses, and building plan applications.
- company documents such as brochures, catalogues, directories, buyer guides and exhibition catalogues, company house journals and newsletters.
- regulatory agencies
- broker reports
- credit bureaus
- financial databases
- company history guides and books
- published media such as local and national press, business journals, trade press, professional journals, academic and semi-academic publications, industry newsletters, conference papers, tender notices.
- government statistics and reports

- venture capital reports
- trade association reports
- published market research reports
- patent databases
- satellite observation including images of plant layouts, external processes, transport facilities, external stocks, and new plant constructions.

The commercialisation of the internet has revolutionised the search for information. Data that once took weeks to acquire is now easily available. Most of the sources of secondary data mentioned above are available on the internet though specialised competitive intelligence portals, government or stock exchange websites, or online databases. The most common method of identifying information on the web is to use powerful search engines that have been developed for this specific task. Common search engines include Google, Yahoo, Lycos and Ask Jeeves, with local variants available (West, 2001; Rajaniemi, 2007). Further tools that can be used include; Google Alerts, Twitter, Twitter search, Twitterurly.com, Bit.ly.com, Quarkbase.com, Howsociable.com, Socialmention.com, Facebook.com, and Domaintools.com (Dickenson, 2009).

The most useful and most used published content available on the internet for competitive intelligence research includes (West, 2001; Rajaniemi, 2007):

- press articles
- newswires
- on-line databases
- market reports
- company news
- financial data
- company websites

- recruitment
- research reports
- industry statistics
- economic and demographic data
- government data
- conference and trade shows
- discussion forums and newsgroups

2.4.2.5 The Validation of the Sources

According to Tan and Ahmed (1999) there are two main factors to consider after the gathering of information from both primary and secondary sources. This would include validating the information and confirming its accuracy. The validity of the data sources can be determined by considering the following (Tan and Ahmed, 1999):

- the quality of the information that has been provided,
- the reasons the source may have for providing the information,
- whether or not the source is likely to possess the information claimed,
- assessing the credibility of the source by testing it with pertinent questions, the answers of which are already known.

The validity of the data attained from both primary and secondary sources can be established by cross referencing them across multiple sources (Tan and Ahmed, 1999).

2.4.2.6 Tools used in Competitive Intelligence Analysis

According to Sandman (2000), Intelligence is created from information that has been analysed to the point where it can be used to support corporate decisions. Furthermore, Sandman (2000) explains that analysis is the linkage between the raw material – *data* – and the value added product – *intelligence*. McGonagle and Vella (1999) identify analysis as the process by which the mass of data collected is handled, so that the Competitive Intelligence analyst can produce a

solution to the problem being faced. McGonagle and Vella (1999) further explain that the problem the Competitive Intelligence analyst is facing is made up of many parts, consisting of the key intelligence needs that have to be solved or answered, which when completely answered will lead to a complete solution.

McGonagle and Vella (1999) are of the view that the process of analysis is made up of four separate sub-processes: amassing, incubation, enlightenment, and corroboration.

- **Amassing** involves the collection of raw data related to the needs. Amassing includes referencing all data available on the subjects, which has been accumulated during the collection process, both within the business context and over a lifetime of experiences,
- **Assimilation** consists of carefully reviewing all the raw data collected. Assimilation entails the slow and careful reading of all materials, in different ways, once by the source, then once sorted by topic, and another time in chronological order. This allows the Competitive Intelligence analyst to master the materials which could reveal important facts when viewed in different ways,
- **Incubation** is the phase, which potentially overlaps the previous, during which the analyst both consciously and unconsciously begins to think about what has been collected. The analyst would begin to assemble the facts in numerous ways so that one or more logical pictures begin to emerge. The incubation phase would further validate and evaluate the credibility of the material's source.
- **Enlightenment** occurs when after a long study of the materials, the true meaning of the data and a solution or answer presents itself. While this process could occur immediately, often it is a gradual process which includes analysis of the data to draw conclusions, and then formulating and testing the hypothesis.
- **Corroboration** is the process of proving or disproving the solutions drawn from the enlightenment phase before presenting them to management.

Wilkens (2007) comments that Competitive Intelligence acquisition efforts on their own will often represent an incomplete mosaic, and that few organisations will ever be able to achieve a complete picture of their competitive environment with all their questions answered. The time

consumed in attempting to capture all relevant data could result in opportunities identified having come and gone. A number of analytical tools and models are available. Each has their own merits and limitations, and organisations should select one or more and consistently utilise them. The tools selected should be easy to use and facilitate the execution of the organisations defined goals (Wilkins, 2007).

Murphy (2005) emphasises the need for an accurate and adequate description of all competitors, in the form of a Corporate Description Checklist (See Appendix A), which will precede Competitive Intelligence analysis and on which analysis will rest upon. The checklist will act as a general descriptive framework in which some items will be relevant to all parties while others will be irrelevant. The checklist will be completed utilising the information collected in the collection phase and form the input for all analytical tools used in the Competitive Intelligence analysis phase (Murphy, 2005). McGonagle and Vella (1999) propose that the use of a predefined competitor analysis checklist could assist in establishing an organisation's Competitive Intelligence Needs by forcing the organisation to identify the specific targets and relevant data it requires. A checklist will prevent the organisation from omitting critical information during the gathering process (McGonagle and Vella, 1999).

Fleisher and Bensoussan (2003) initially compiled a comprehensive guide to the methods and techniques for analysing business competition and separated the techniques into five separate categories – strategic analysis techniques, competitive and customer analysis techniques, environmental analysis techniques, evolutionary analysis techniques, and financial analysis techniques – which when used in comparison can lead to a comprehensive analysis of the competitive environment.

In the following section the tools comprising the above mentioned categories will be described briefly (Fleisher and Bensoussan, 2003; Fleisher and Bensoussan, 2007):

- **Strategic Analytical Techniques**
 - **Boston Consulting Group Growth/Share Portfolio Matrix.** The Boston Consulting Group (BCG) Growth/Share Portfolio matrix was designed to assist managers of diversified multi-product, multi-market, and multi-national organisations to analyse corporate level strategy by providing an analytical framework to determine the optimal product/business portfolio. The framework would prescribe a set of

generic strategies to guide resource allocation, and provide the ability to analyse competitive business portfolios. The matrix allows a multi-business organisation to compare its individual units to determine appropriate strategies for each and evaluate them based on the industry in which they compete. Generic strategies are then recommended based on the unit's position within the matrix.

- **General Electric Business Screen Matrix** is a descriptive device with evaluative and normative strategy implications. The matrix combines internal analysis of the business strength with an external industry analysis describing the competitive situation of the Strategic Business Units and guides resource allocation across them.
- **Industry Analysis** provides a structural analysis and outline of an industry including its participants and characteristics. Industry analysis utilises the Five Forces Model developed by Michael Porter, and its objective is to identify the profit potential of an industry, uncover the forces that could harm profitability driving the profit potential, protect competitive advantage by defending against forces that would harm profitability, extend competitive advantage by favourably influencing these forces, and proactively anticipate any future changes in the industry structure. By identifying the profit potential of an industry, the organisation can bridge the gap between the external environment and its resources.

Porter's Five Forces Model assists in analysing the industry by generating information of the following five forces:

- Threat of new entrants
- Bargaining power of suppliers
- Bargaining power of buyers
- Threat of substitute products or services
- Rivalry among existing competitors

Through a sophisticated investigation of the above forces the organisation will understand the rules of competition and develop competitive strategies to influence or change these forces in favour of the organisation.

- **Strategic Group Analysis** forms a subset of industry analysis and studies different groups of rival organisations clustered due to similar competitive approach and strategic position. The strategic group consists of rival organisations that have similar competitive approaches and positions within the industry. These rival organisations are then placed on a strategic group map which displays the different competitive positions rival organisations occupy.

The Strategic Group Analysis is thus utilised to determine:

- different competitive positions that rival organisations occupy
 - intensity of competitive rivalry within and between industry groups
 - profit potential of the various strategic groups
 - strategic and dynamic strategic implications of the competitive position of the organisation under analysis.
- **SWOT Analysis:** SWOT is an acronym for strengths, weaknesses, opportunities, and threats. A SWOT analysis is used to assess the fit between an organisation's strategy, its internal capabilities (strengths and weaknesses), and its external possibilities (opportunities and threats). The SWOT model is a descriptive model based on the data generated from a broader situational analysis of the organisation's micro and macro environments. The model assists in isolating major issues facing an organisation assisting in the formulation of strategies to address the key issues.
 - **Value Chain Analysis** developed by Michael Porter is a method used to identify potential sources of economic advantage by suggesting how an organisation's internal core competencies could be integrated with its external competitive environment to direct optimal resource allocation. The Value Chain analysis disaggregates the organisation's activities into strategically relevant value creating activities which could be compared to competitors to identify competitive advantage. The organisation's value chain comprises those activities and processes which the organisation performs to design, procure, market, deliver, and support its products or services. The value chain activities are classified into two main categories – primary and secondary activities:

- **Primary Activities**
 - Inbound logistics – inventory warehousing and handling.
 - Operations – transformation of inputs into the final product or service.
 - Outbound logistics – distribution.
 - Marketing and Sales – marketing communications, pricing and channel management.
 - Service – post-sale support.

- **Secondary Activities**
 - Technology development – engineering, R&D, information technology.
 - Human Resource development – hiring, incentive systems, motivation, training, promotion, labour relations.
 - Firm infrastructure – administrative support activities such as accounting, legal, planning, and public relations.

The value chain model can further be utilised to identify all the value chains within the holistic industry value system which could determine, the total customer value created, the organisation's share of the overall industry profits, and the current power of the organisation within the industry value chain. They could suggest how to maximise the organisations power in order to gain a higher share of industry profits by securing competitive advantage.

- **Competitive and Customer Analysis Techniques:**
 - **Blind-spot Analysis** examines the underlying reasons for inaccuracies or flaws in the strategic decision making process. It further explains why Competitive Intelligence Analysts misread the competitive environment and how internal scrutiny

can lead to the overestimating of an organisations competitive capability, with the aim of improving strategic decisions.

- **Competitor Analysis** provides a comprehensive picture of the strengths and weaknesses of current and potential competitors.

The analysis provides an offensive and defensive strategic profile through which to identify opportunities and threats, and does this through combining of all sources of competitor analysis into a single framework. The framework was developed by Michael Porter and has four major purposes: to identify competitors' future strategies and plans, to predict competitors' likely reactions to competitive initiatives, to determine how well matched a competitors' strategy actually is to its capabilities, and to understand the competitors' weaknesses.

Mockus (2003) identifies a further aspect of competitive analysis which includes analysing a competitor's relationships on both a corporate and individual level. These relationships include product development partners, investor relations, distribution partners, service partners (legal, banking), manufacturing partners and marketing sales partners. By understanding these relationships a truly clear picture of the competitive environment emerges as these partners could influence the competitor in substantial ways which could be overlooked if not properly analysed (Mockus, 2003).

- **Customer Segmentation Analysis** divides markets into groups of customers based on distinct heterogeneous customer needs and relatively homogeneous customer needs within groups. The model maps a path to potential competitive advantage by matching value embedded in the organisations products and services with customer groups most attracted to the value. This model identifies the most lucrative customers to pursue, and assists in the identification of strategies to pursue, which would lead to profitable growth.
- **Customer Value Analysis** consists of several tools and techniques that allow for the better understanding of an organisation's customers, competitors, and markets. Customer Value Analysis achieves this goal by firstly functioning as an integral component of market segmentation, as the central criteria for selecting profitable market segments. Secondly, Customer Value Analysis is utilised continuously post-

segmentation to monitor the organisation's foundation of competitive advantage. The essence of Customer Value Analysis is to match the customer value (their goals, motivations, and perceived value) with the organisation's resources by providing a superior combination of product quality, service quality and price.

- **Functional Capability and Resource Analysis** in essence, views the organisation as a collection of resources comprising of tangible and intangible assets and core capabilities. The fundamental premise of the Resource Based View (RBV) theory is that the organisation owns or controls sets of resources that support the unique strengths which allow the organisation to perform activities better or at a lower cost than competitors. It includes a strategic analysis of an organisations tangible assets, intangible assets, critical success factors, capabilities and core competencies. It combines internal organisational scrutiny with external analysis to assist in determining if the above mentioned assets are valuable resources that could lead to competitive advantage.
- **Management Profiling** is an analytical tool that provides decision makers with a comprehensive understanding of the backgrounds, goals, personalities, and psychological characteristics of competitor's decision makers. The assertion is made that individuals' personalities remain stable over time and that most individuals repeat patterns. A complete analysis can be used to predict a competitor's management's future strategic decisions and provide insight into how competitors think, operate, and manage. Management Profiling thus allows Competitive Intelligence analysts insight to assess competitor's leadership, managerial, and decision making styles, anticipate competitor's likely reactions or market initiatives, provide strategies for understanding players in mergers, acquisitions, and strategic alliances, and evaluate the strengths and weaknesses of leadership teams across all competitors.
- **Environmental Analysis Techniques:**
 - **Issue Analysis** assists strategic and competitive intelligence efforts by allowing management greater insight that may enable them to anticipate better changes in their external environment (social and political environments) and become a more active

or proactive participant in shaping its external environment by influencing public policy development.

- **Macro-environmental (STEEP) Analysis** allows management an understanding of the wider macro-environment in which their industry is based and allows for the identification of issues that could impact the competitiveness of the industry and the companies within the industry. The STEEP sector of the macro-environment includes the social, technological, economic, ecological, and political or legal aspects that could impact competitiveness. These sectors are all beyond the direct influence of the individual organisation but have an impact on it.
- **Scenario Analysis:** According to Fleisher and Bensoussan (2003:284) a scenario is a *“detailed, internally consistent description of what the future may look like and is based on a set of assumptions that are critical for the economy’s, industry’s, or technology’s evolution”*. Scenario analysis is thus a planning tool for environmental analysis in a turbulent and rapidly changing environment to build a base for strategic decision making. Scenario analysis consists of both quantitative and qualitative analysis that creates many potential futures of environmental change. These potential futures are then reduced in number to allow for sensitivity analysis to determine variable relationships and to isolate trends or patterns which can counteract blind spots in decision making. The resulting analysis provides a framework with which to base future decisions.
- **Stakeholder Analysis** systematically identifies important groups of individuals who have the ability to exert a significant amount of influence on the organisation and its competitors. Stakeholder analysis is a powerful technique that assists in identifying important stakeholders, what their interests are, when and how to initiate actions regarding them, and how to allocate resources among critical stakeholders in order to maximise competitive success.
- **Evolutionary Analysts Techniques:**
 - **Experience Curve Analysis** is a framework based on the belief that value-added costs often decline by a constant factor as production volume or experience is doubled. This is often a result of a combination of scale economies, learning curve effects and enhanced technology. The analysis of this framework can lead to strategic

guidance on cost forecasting, market entry decisions, pricing strategies, budgeting, benchmarking and influence the merits of competing on a cost strategy alone.

- **Growth Vector Analysis** allows for the understanding of alternative opportunities available to the organisation that is not pursued by competitors. This analysis reviews different product alternatives available in relation to market options. Through an evaluation of the market, competitive conditions, and market growth, opportunities are identified and understood.
 - **Patent Analysis** is a unique management tool for the analysis of an organisations technological, product or service development process. By including patent data, a Competitive Intelligence analyst, can identify the organisations technical competitiveness to forecast future technological trends and prepare for potential competition based on new technologies.
 - **Product Lifecycle Analysis** describes the evolution of a product or service as passing through four stages during their life span: introduction, growth, maturity, and decline. By mapping the location of the organisation's or competitor's product on a product lifecycle graph, management can understand the market dynamics. This will allow for product management through a framework that recommends specific marketing strategies for each product lifecycle stage in order to maximise profitability over the products life span.
 - **S-Curve (Technology Life Cycle) Analysis** integrates technological change into the intelligence function. This tool allows for the comparison of an organisation's current technologies to those of competitor's technologies in order to assist in developing future strategy as well as decide on when to deploy new technology.
- **Financial Analysis Techniques:**
 - **Financial Ratio and Statement Analysis** allows the manager an understanding of the organisation and their competitors' competitive performance from a financial perspective. It provides critical insight about an organisations financial condition and future competitive prospects by assessing current performance, business trends, business strategies, and monitoring progress. It utilises ratios to reflect the following

main aspects of business: liquidity, leverage, asset turnover, profitability, and market value.

2.4.2.7 Distributing Intelligence

One of the key tasks of a Competitive Intelligence analyst is to supply their findings to the appropriate decision makers within an acceptable time-frame (West, 2001). The analyst's conclusions should be accurate and accepted as such by decision makers (Murphy, 2005).

Murphy (2005) emphasises that analysts:

- must take care to avoid contradicting themselves,
- reject the temptation to manipulate, ignore or concoct data to make it agree with their conclusions,
- avoid providing intelligence in an untimely fashion, due to a desire for accuracy.

A large premium is placed on the delivering of intelligence that gain the attention of potential users and thus minimise the amount of time required to assimilate it (West, 2001).

The appropriate choice of processing and distributing intelligence would depend on the size of the organisation, the importance attached to the user of competitive intelligence, and the budget allocated to the function (West, 2001). The most appropriate options available are (West, 2001):

- the distribution of written reports
- meetings and forums within which competitive intelligence is presented and discussed
- e-mail
- corporate intranets
- management information systems
- knowledge management systems
- tailored competitive intelligence systems.

With the Competitive Intelligence having been made available for use within the organisation, the effectiveness or value derived from it should be measured. Competitive Intelligence managers or staff should be interested in their contribution to the overall organisational performance. Five key indicators of the effectiveness of Competitive Intelligence are (West, 2001):

- quality of intelligence provided
- use being made of competitive intelligence
- development of an intelligence culture
- event analysis
- growth of market share.

While it is difficult to measure the direct correlation between the use of Competitive Intelligence and corporate performance, various indicators, such as the five identified above, can be used to determine whether the investment in Competitive Intelligence is worthwhile.

2.4.3 Knowledge Management

2.4.3.1 Defining Knowledge

Knowledge is found to be a complex concept that has attracted many philosophers, researchers of other disciplines, and practitioners (Greiner, Bohmann and Krcmar, 2007). Due to knowledge's intangible and fuzzy nature, defining knowledge has been difficult (Bhatt, 2002). Bhatt (2002) argues that knowledge for one individual could be information for another and therefore the valuation of knowledge is risky, because productivity gain from untried knowledge cannot be guaranteed, and is seen as a liability if expected results are not achieved.

A single point of consensus among researchers is the notion that knowledge is more than just data and information (Greiner *et al.*, 2007). Turban *et al.* (2007:482) identify data as facts, measurements, and statistics, and state that information is organised or processed data that is timely and accurate.

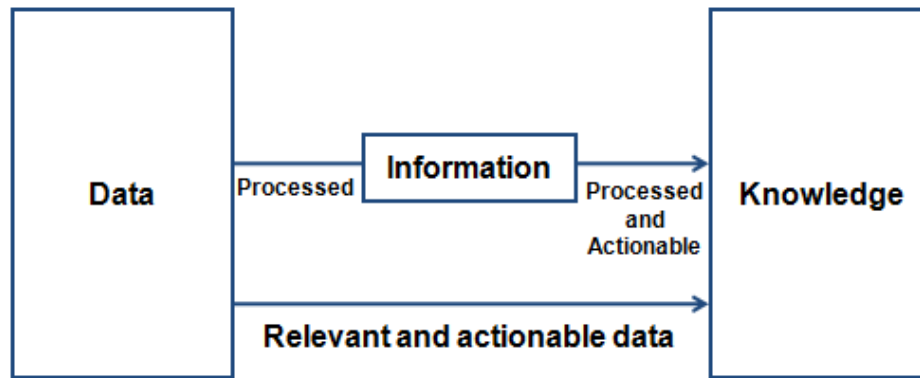


Figure 6 - Data Conversion (Turban *et al.*, 2007: 482)

Within Greiner *et al.*'s (2007) research, data is defined as a set of discrete, objective facts about events which are represented by characters and can be produced, codified and distributed without a reference to the context or person. In contrast to data, information refers to a context, and can be considered as messages or news created through the interpretation of data (Greiner *et al.*, 2007).

Knowledge emerges from the processing of perceived information and the contextualisation of a person (Greiner *et al.*, 2007). Ponelis and Fairer-Wessels (1998) define knowledge as *"the combination of information, context, and experience"*. Turban *et al.* (2007) agree with this statement and define knowledge as *"information that is contextual, relevant, and actionable."* Debowski (2006:16) defines knowledge as *"the process of translating information (such as data) and past experience into a meaningful set of relationships which are understood and applied by an individual"*. Greiner *et al.* (2007) and Bali *et al.* (2009) quote Davenport and Prusak's (1998), definition of knowledge as *"knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information"*. Context is an individual's framework for viewing life, and includes influences such as social values, religion, cultural heritage, and gender, while experience is further seen as previously acquired knowledge (Ponelis and Fairer-Wessels, 1998).

McDermott (1999:105) describes six characteristics of knowledge that allows it to be distinguished from information:

- Knowledge is a human act.
- Knowledge is the residue of thinking.

- Knowledge is created in the present moment.
- Knowledge belongs to communities.
- Knowledge circulates through communities in many ways.
- New knowledge is created at the boundaries of the old.

Knowledge can provide added value if it results in actions and decisions (Greiner *et al.*, 2007). Lang (2001) highlight the fact that knowing is a human act due to the fact that knowledge involves humans who do the knowing. Turban *et al.* (2007) believe that having knowledge should imply that it can be exercised to solve a problem; whereas information does not carry the same connotation, and that the ability to act is an integral part of being knowledgeable.

Turban *et al.* (2007) identify data, information and knowledge as assets of an organisation, but believes knowledge provides a higher level of meaning, and is more valuable than data or information. Turban *et al.* (2007) further identify the following characteristics of knowledge:

- Extraordinary leverage and increasing returns as knowledge is not subject to diminishing returns, because when it is used, it is not consumed, but rather one can add to it, increasing its value.
- Fragmentation, leakage, and the need to refresh. As knowledge increases, it branches and fragments, and as a result organisations must continuously refresh their knowledge base so as to maintain it as a source of competitive advantage.
- Uncertain value.
- Uncertain value of sharing the knowledge.

Knowledge is often called the Intellectual Capital of an organisation and as such is critical (Civi, 2000). Intellectual Capital implies there is a financial value to knowledge (Turban *et al.*, 2007). Beyond the brand, customer, and physical assets, an organisation can gain knowledge from years of experience in activities such as manufacturing, engineering, and sales, and this cumulative experience, together with information gathered from outside sources constitutes one of the organisations critical resources (Civi, 2000). Not all Intellectual Capital can be classified as

knowledge but the most significant and valuable aspect of Intellectual Capital is knowledge in all its forms (Turban *et al.*, 2007).

2.4.3.2 The Different Types of Knowledge

In his 1966 work, *The Tacit Dimension*, Hungarian philosopher Michael Polanyi distinguished between two types of knowledge that can be identified within an organisation, namely explicit and tacit knowledge (Ponelis and Fairer-Wessels, 1998). Ponelis and Fairer-Wessels (1998) identify explicit knowledge as being able to be articulated in formal language and transmitted among individuals, whereas tacit knowledge is personal knowledge embedded in individual experience and involving intangible factors such as personal belief, perspective, and values. Civi (2000) adds that “*Explicit knowledge can be expressed in words and numbers and shared in the form of data, scientific formula, specifications and manuals...It is codified and stored in databases where it can be accessed and used easily by anyone in the company*”, whereas “*Tacit knowledge is highly personal and hard to formalise, making it difficult to communicate or share with others*”. Civi (2000) further explains that Tacit knowledge can further be split into two segments, one including informal personal skills and crafts referred to as know-how, while the other includes an implicit cognitive dimension including beliefs, values, and mental models. Turban *et al.* (2007) simplify the definitions by stating that explicit knowledge deals with the more objective, rational, and technical knowledge while tacit knowledge is usually the domain of subjective, cognitive, and experiential learning, which is highly personal and difficult to formalise.

Explicit Knowledge comprises the policies, procedural guides, white papers, reports, designs, products, strategies, goals, mission, and core competencies of an organisation, which has been documented into a format that can be distributed to other individuals, or transformed into a process or strategy, not requiring interpersonal interaction. Tacit knowledge consists of the collection of experiences, mental maps, insights, acumen, expertise, know-how, trade secrets, skill sets, understanding, and learning attained within an organisation, including the past and present experiences of the organisations employees, processes, and values (Turban *et al.*, 2007).

Nonaka and Takeuchi (1995) designed a dynamic model for knowledge creation, in which they explained a critical assumption that human knowledge is created and built upon through social interaction between tacit and explicit knowledge. They named this interaction “*Knowledge Conversion*” and believed that explicit and tacit knowledge were not completely separate entities

but rather interacted, and interchanged into each other through the creative activities of humans (Civi, 2000). Nonaka and Takeuchi (1995) defined four conversion processes (Civi, 2000; Diakoulakis, Georgopoulos, Koulouriotis and Emiris, 2004; Asimakou, 2009; Bali et al., 2009):

- Socialisation describes the conversion of tacit knowledge to other types of tacit knowledge. The process includes the sharing of experiences, ideas, images, mental models, and technical skills. It often occurs through joint activities, observation, imitation and practice in settings such as apprenticeships, and conferences.
- Externalisation is the conversion of tacit knowledge to explicit knowledge. It consists of a knowledge creation process during which hidden tacit knowledge such as ideas, concepts, visuals, metaphors, analogies, and narratives are articulated and transformed into an understandable format.
- Combination is the conversion of explicit to explicit knowledge and involves the combining of explicit knowledge to produce a more complex set of explicit knowledge. The systemisation, and codification of knowledge, and its communication, diffusion, and integration take precedence. Information technologies such as databases, classification methodologies, web-based tools, intranets, and the internet are mainly used in this process.
- Internalisation is the transformation of explicit knowledge into tacit knowledge. The process consists of learning by doing, on the job training, learning by observation, face to face meetings, listening to stories, simulations and experiments. The process produces experience and knowledge gained through a explicit source, which can be replicated in practice.

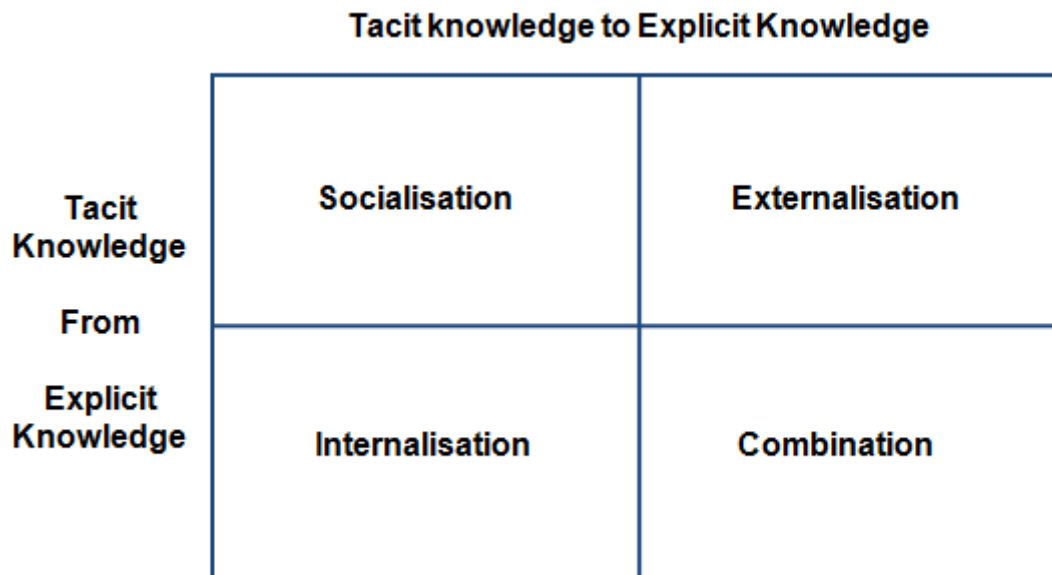


Figure 7 - Knowledge Conversion (Nonaka and Takeuchi, 1995:62)

Bapuji and Crossan (2007) point out that another important factor to consider is whether the knowledge is available within the organisations boundaries, or needs to be acquired from outside the organisation's boundaries. Knowledge that resides within the organisation is referred to as internal knowledge, and knowledge that resides outside of the organisation is external knowledge. Internal knowledge is knowledge that an organisation can claim to own, or have the right to use which in the event of a dispute, the use of the internal information can be legally defended. Internal knowledge incorporates any traditional knowledge that is technically not owned but free for all to utilise. External information is held by outside agencies, such as suppliers, customers, competitors, industry associations, and research communities, and is important to manage as organisations create new knowledge through interaction with other organisations. The ability of an organisation to successfully interact with other organisations and acquire new knowledge is a distinctive competence that leads to competitive advantage (Bapuji and Crossan, 2007). Knowledge can be categorised into four types: Internal Explicit, Internal Tacit, External Tacit, and External Explicit, examples of which are shown in the table below.

Table 2 - Examples of Internal and External Knowledge

	Internal	External
Explicit	<ul style="list-style-type: none"> Company procedures, routines, policy statements, directories, databases, and reports. 	<ul style="list-style-type: none"> Patents, annual reports, and press statements of other companies. Customer/market/industry reports, news items, benchmarking studies, articles/research studies, public policy statements, and conference presentations.
Tacit	<ul style="list-style-type: none"> Belief structures, judgement, intuition, management practices, architectural knowledge, and informal routines and procedures. Knowledge about suppliers, distributors, customers, research institutions, consultants, competitors, other firms, etc. 	<ul style="list-style-type: none"> Preferences of other companies, exploratory projects, failed experiments, belief structures, values, culture, and new technologies under consideration/development. Industry norms, culture, and relationships between players.

Source: Bapuji and Crossan (2007: 13)

Ponelis and Fairer-Wessels (1998) further explain that a distinction can be made according to the level of knowledge, which can be either shallow or deep. Shallow knowledge consists of surface level information that could be used to deal with very specific situations, without explanation or heuristic rule. Deep knowledge refers to the internal and causal structure of a system and considers the interactions among the systems components. Deep knowledge is based on a comprehensive, integrated body of human consciousness and includes emotion, common sense and intuition, making it extremely difficult to document and make explicit (Ponelis and Fairer-Wessels, 1998).

Ponelis and Fairer-Wessels (1998) believe one of the most important characteristics of knowledge is abstraction, which is the suppression of detail until it is required and the exposure of the patterns of organisation of detail. Ponelis and Fairer-Wessels (1998) explain that the relationships, not detail, are critical, as knowledge does not rely on access to original information as symbols can be created to represent original information, and the knowledge created, can be transferred between individuals without the transfer of all the information.

Diakoulakis *et al.* (2004) proposes that a clarification must be made about the dual perception about knowledge; the individual and organisational dimensions. In Diakoulakis *et al.* (2004),

Caragannis define organisational knowledge as “*the collective sum of individual knowledge assets...processed information embedded in routines and processes which enable action...knowledge captured by organisational systems, processes, products, rules and culture*”. Turban *et al.* (2007:486) state that “*knowledge management is rooted in the concepts of organisational learning and organisational memory*”. Turban *et al.* (2007:486) further state that “*when members of an organisation collaborate and communicate ideas, teach, and learn, knowledge is transformed and transferred from individual to individual*”. Bali *et al.* (2009) contends that organisational knowledge “*exists at the confluence of people, process and technology.*”

Diakoulakis *et al.* (2004) provide a framework (see figure below) for the integration and coordination of an individual’s knowledge, through the appropriate “*application*” of current organisational knowledge, and the “*creation*” of knowledge.

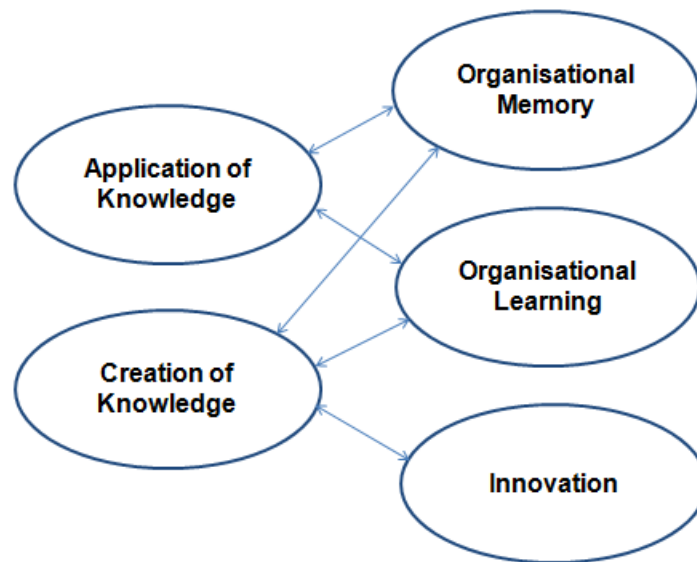


Figure 8 - Knowledge Framework (Diakoulakis *et al.*, 2004)

The two dimensions proposed are crucial to pursue a sustainable competitive advantage and are discussed below (Diakoulakis *et al.*, 2004).

- The *application of knowledge* proposes the efficient and effective use of knowledge available in the organisation. The initiative’s core elements include the retrieval and systemization of the existing knowledge pool, the maintenance of conditions that reinforce the availability and transfer of knowledge, and the setting up of appropriate procedures and climate to amplify the learning behaviour within the organisation.

- The *creation of knowledge* proposes to exploit the innovative nature exhibited by individuals and organisations. Through the acquisition of external knowledge bases, the elaboration of the current knowledge pool, the benefits of organisational learning, and an empowering and motivating organisational culture, the objective of knowledge creation can be achieved.

The graphical description of the framework in the figure above mentions the modern aspects of business thinking, organisational memory, organisational learning, and organisational culture which are critical to the understanding of organisational knowledge and are discussed briefly below (Diakoulakis *et al.*, 2004; Turban *et al.*, 2007; Bali *et al.*, 2009):

- A *Learning organisation* includes the organisation's ability to learn from past experiences, and through the interaction of experience and competence (Turban *et al.*, 2007). Turban *et al.* (2007) describe a learning organisation as one that can: solve problems systematically, experiment creatively, learn from past experiences, learn from the best practices of others, and can transfer knowledge quickly and efficiently throughout the organisation.
- *Organisational Memory* is a means for a learning organisation to save, represent, and share its organisational knowledge. Individuals can tap into the memory for both tacit and explicit knowledge when faced with problems to solve (Turban *et al.*, 2007). Diakoulakis *et al.* (2004) are of the opinion that the term expresses the means by which knowledge from past experiences is utilised to assist in present activities, resulting in higher or lower levels of organisational effectiveness.
- *Organisational Learning* is the development of new knowledge and insight that could potentially influence organisations' behaviour (Turban *et al.*, 2007). Diakoulakis *et al.* (2004) explain that organisational learning is a process for the continuous generation, retaining and leveraging of individual and collective learning to improve organisational system performance. Turban *et al.* (2007) believe organisational learning occurs when associations, cognitive systems, and memories are shared between individuals and requires the following skills; openness to new perspectives, an awareness of personal biases, and exposure to unfiltered data, and a sense of humility.

- *Organisational Culture*: An organisation's ability to learn, develop memory, and share knowledge is completely dependent on the organisation's culture. Culture can be identified as a pattern of shared basic assumptions, which are generated over a period of time, by learning what works or does not work. These lessons learned become second nature and become part of the organisation's culture (Turban *et al.*, 2007).

Rapid changes in the industrialised economy have transformed organisations from ones being dependent on natural resources to being dependent on intellectual assets. A new knowledge-based economy based on the above aspects of business thinking has emerged requiring organisations to identify better tools for the collaboration, communication, and sharing of knowledge by leveraging their intellectual assets for optimal performance to sustain competitive advantage.

2.4.3.3 Understanding Knowledge Management

Companies are required to innovate or die. Their ability to learn, adapt and change have become a core competency for long term survival. Forces of technological change, globalisation and the now incumbent knowledge economy, has resulted in a revolution forcing organisations to seek new ways to reinvent themselves. To succeed in the global information society, organisations need to identify, create, value, and evolve their knowledge assets. With many authors arguing that knowledge has replaced capital and labour as the only meaningful economic resource in this new economic society, it is clear that the management of knowledge has become the main competitive tool for many organisations (Rowley, 1999; Civi, 2000).

Knowledge Management includes the identification and analysis of available and required knowledge, and the subsequent planning and control of actions to develop knowledge assets to fulfil organisational objectives. Knowledge assets are identified as knowledge regarding markets, products, technologies, and organisations that an organisation owns, or would need to own to enable its business processes to generate profits. Knowledge Management is not only concerned with the management of these knowledge assets, but also with the managing of the processes that act upon the knowledge assets (Civi, 2000).

Bali *et al.* (2009:7) define Knowledge Management as “*comprised a set of tools, techniques, tactics and technologies aimed at maximising an organisation's intangible assets through the extraction of relevant data,*

pertinent information and germane knowledge, to facilitate superior decision-making so that an organisation attains and maintains sustainable competitive advantage”.

Jennex (2009:4) define Knowledge Management as “the practice of selectively applying knowledge from previous experiences of decision-making to current and future decision-making activities with the express purpose of improving the organisation’s effectiveness.” and further states that Knowledge Management is really about (Jennex, 2009):

- Leveraging what the organisation “knows” so that it can better utilise its knowledge assets, and
- Connecting knowledge generators, holders, and users to facilitate the flow of knowledge through the organisation.

Civi (2000) defines Knowledge Management as the *“acquisition, sharing, and use of knowledge within organisations, including learning processes and management information systems”.*

In 1998, Davenport and Prusak (1998) studied a large quantity of knowledge management projects initiated by large organisations, and identified four broad types of project objectives:

1. to create knowledge repositories, storing both knowledge and information in documentary format including the categorisation and pruning of documents. Repositories were split into three categories:
 - those including external knowledge, such as competitive intelligence.
 - those including structural internal knowledge such as research reports and marketing material.
 - those that embrace informal, internal or tacit knowledge, such as discussion databases that store “know-how”,
2. to improve knowledge access, or provide access to knowledge, or facilitate its transfer amongst individuals. Attempts could be made to create a repository of knowledge, but most emphasis is rather on access to the individuals that hold or could provide the knowledge,

3. to enhance the knowledge environment, allowing it to be conducive to effective knowledge creation, transfer and use. This goal would be achieved through the tackling of organisational norms and values as they relate to knowledge,
4. to manage knowledge as an asset, and to recognise the value of knowledge to the organisation.

The four categories of objectives identify four perspectives on knowledge management, and emphasise the diversity of the concept “knowledge management”. Davenport and Prusak (1998) propose the following definition:

“Knowledge Management is concerned with the exploitation and development of the knowledge assets of an organisation with a view to furthering the organisations objectives. The knowledge to be managed includes both explicit, documented knowledge, and tacit subjective knowledge. Management entails all of those processes associated with the identification, sharing and creation of knowledge. This requires systems for the creation and maintenance of knowledge repositories, and to cultivate and facilitate the sharing of knowledge and organisational learning. Organisations that succeed in knowledge management are likely to view knowledge as an asset and to develop organisational norms and values, which support the creation and sharing of knowledge.”

The Management Review (1999) broadly defines the concept as *“the practice of adding actionable value to information by capturing, filtering, synthesising, summarising, storing, retrieving and disseminating tangible and intangible knowledge; developing customised profiles of knowledge for individuals so they can get the kind of information they need when they need it; and creating an interactive learning environment where people transfer and share what they know and apply it to create new knowledge.”*

The Gartner Group (1999) is of the belief that:

“Knowledge Management promotes an integrated approach to identifying, capturing, retrieving, sharing, and evaluating an enterprise’s information assets. These information assets may include databases, documents, policies and procedures, as well as the un-captured tacit expertise and experience stored in individual worker’s heads.”

Debowski (2006:16) identifies knowledge management as *“the process of identifying, capturing, organising and disseminating the intellectual assets that are critical to the organisations long-term performance.”*

Turban *et al.* (2007) are of the opinion that Knowledge Management is a process that can assist

organisations in identifying, selecting, organising, disseminating, and transferring important information and expertise, that are part of the organisations memory, and that typically resides within the organisation in an unstructured manner. Turban *et al.* (2007) define Knowledge Management as “*the systematic and active management of ideas, information, and knowledge residing in an organisation’s employees*”.

Knowledge Management is the process of creating value from an organisation’s intangible assets (Liebowitz, 2006b). Knowledge Management is concerned with and made up of four major types of capital (Liebowitz, 2006b):

- Human Capital – which is the brainpower of employees and management,
- Structured Capital – deals with knowledge-laden items that are not easily movable or transferrable, such as intellectual property rights or databases,
- Customer or Social (Relationship) Capital – deals with knowledge acquired from customers and stakeholders.
- Competitive Capital – include knowledge learned about and from organisation’s competitors.

The major types of capital described above clearly identify the need for organisations to leverage knowledge both internally and externally (Liebowitz, 2006b).

The structuring of knowledge enables effective and efficient problem-solving, dynamic learning, strategic planning, and decision making. Knowledge Management initiatives, can be seen as focusing on identifying knowledge, explicating it so that it can be shared in a formal manner, and leveraging its value through reuse (Turban *et al.*, 2007).

2.4.3.4 The Aim and Mission of Knowledge Management

Knowledge Management is about using existing resources and skills more productively, but it is also about widening our perspectives, increasing the channels for the communication of information, and therefore increasing adaptation (Woods and Sheina, 1998).

Bawany (2000) believes the mission of Knowledge Management should be to provide the organisation with all the necessary knowledge it requires to create a sustainable competitive advantage for the future.

Khanna (1999) further believes that knowledge acquisition and management philosophy should:

- provide the organisation with all the necessary knowledge regarding its industry, business, economic, and competitive environment on a continuous basis,
- assist in the formulation of competitive strategies that successfully positions them for the future,
- assist in creating an appropriate business, organisation, and information system design that integrates and compliments strategic decision,
- assist in the implementation of strategic and operational plans,
- develop a methodology to monitor and examine their progress and enable them to quickly respond to changes in the business environment.

The American Productivity and Quality Center (1998) (APQC) notes that there are a few basic objectives for employing Knowledge Management initiatives in an organisation. These are (APCQ, 1998):

- 1) exploring existing knowledge in the best possible way to make it more productive;
- 2) renewing the knowledge of individuals and enterprises based on internal and external learning processes to complement each other;
- 3) transforming individual or tacit knowledge into structural capital of the enterprise, which can be used to transform the organisation;
- 4) the development of business strategy on the basis of existing core competencies and capabilities to be used for organisational transformation.

The APQC (1998) further acknowledges, that in order to achieve these objectives, organisations are required to utilise various instruments and interventions, focussing on:

- management style and leadership,
- organisational structures and rules,
- cultural issues,
- IT enablers.

The benefits of a knowledge management function to the organisation are many. These include (Bawany, 2000):

- knowledge to compete successfully in the changing business environment,
- ability to create and maintain competitive advantage at all times,
- ascertain its long term competitive position,
- achieve meaningful and required performance results,
- understand the contemporary knowledge to remain competitive and innovative,
- maintain a knowledgeable and skilled workforce,
- and have the appropriate business organisation and people who can make it happen.

Knowledge Management is a conscious strategy of getting the right knowledge, to the right people, at the right time, and helping people share and put information into action in ways that strive to improve organisational performance and achieve organisational objectives (Bawany, 2000).

Knowledge Management can be seen as a complex process that must be supported by a strong foundation or pillars of enablers. These pillars of enablers are; strategy and leadership, culture, measurement, technology, and knowledge transfer, each of which needs to be designed and managed in alignment with each other and in support of the knowledge management process (Bawany, 2000).

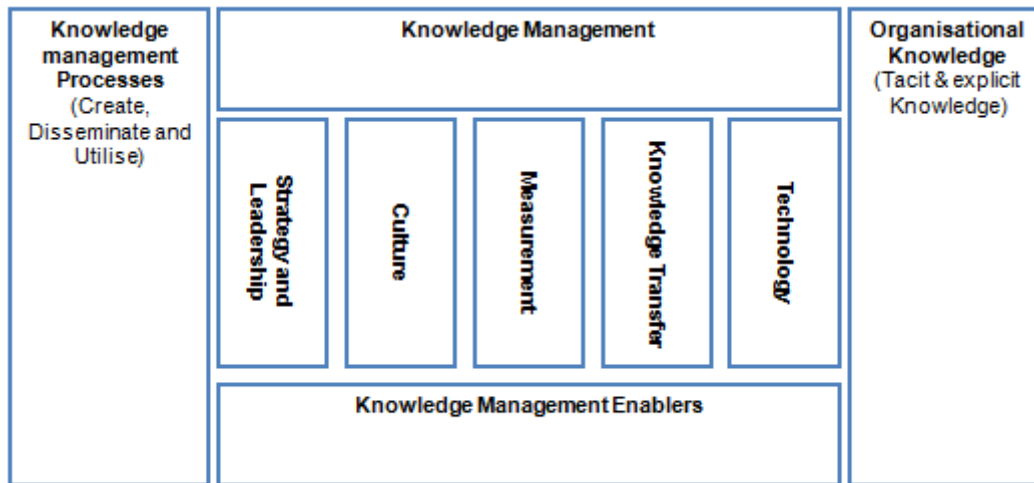


Figure 9 - The Knowledge Management Enablers (Bawany, 2000:9).

Knowledge Management is a multifaceted discipline that requires culture, process, and technology to work together on a large scale (Bawany, 2000). Knowledge Management can be described as the collection of processes that govern the creation, dissemination, and utilisation of knowledge to fulfil organisational objectives (Bawany, 2000). Knowledge Management can simply be stated as the capturing of knowledge, storing of Knowledge, and transfer of knowledge to others (Rosenheck, 2009).

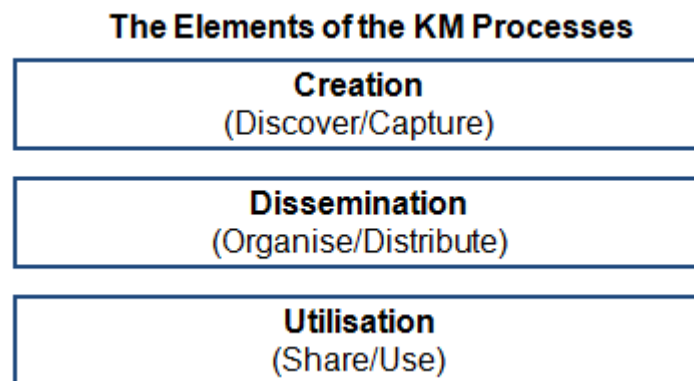


Figure 10 - The Knowledge Management Processes (Bawany, 2000:8)

Many Knowledge Management initiatives have one of three aims: to make knowledge visible, to develop a knowledge intensive culture, or to build a knowledge infrastructure. While the aims are not all the same, many attempt all three as part of their knowledge management initiative. Several activities or processes surround the management of knowledge to achieve the aims listed above, and as such various terms have been used by different researchers to describe these processes (Turban *et al.*, 2007).

Turban *et al.* (2007) prefer to describe the knowledge flow through an organisation rather than label exact processes. The flow would include:

- *Knowledge Creation* which comprises the generation of new insights, ideas or routines, through the interplay between tacit and explicit knowledge, as a spiral at an individual, group or organisational level.
- *Knowledge Sharing* which is the wilful explication of a single individual's ideas, insights, solutions, experiences to another individual either directly or via an intermediary, such as a computer-based system.
- *Knowledge Seeking* is the search for and use of internal organisational knowledge.

Galagan (1993) proposed the following sample list of Knowledge Management processes:

- generating new knowledge,
- accessing knowledge from external sources,
- representing knowledge in documents, databases, and software,
- embedding knowledge in processes, products and services,
- transferring existing knowledge around an organisation,
- using accessible knowledge in decision making,
- facilitating knowledge growth through culture and incentives,
- measuring the value of knowledge assets and the impact of knowledge management.

Beckman (1997) on the other hand proposed a more detailed eight stage process for knowledge management:

- | | | |
|----------------|----------|---|
| Stage 1 | Identify | Determine core competencies, sourcing strategy, and knowledge domains. |
| Stage 2 | Capture | Formalise existing knowledge. |
| Stage 3 | Select | Assess knowledge relevance, value, and accuracy. Resolve conflicting knowledge. |

Stage 4	Store	Represent corporate memory in knowledge repository with various knowledge schemas.
Stage 5	Share	Distribute knowledge automatically to users based on interest and work. Collaborate on knowledge work through virtual teams.
Stage 6	Apply	Retrieve and use knowledge in making decisions, solving problems, automating or supporting work, job aids, and training.
Stage 7	Create	Discover new knowledge through research, experimenting, and creative thinking.
Stage 8	Sell	Develop and market new knowledge-based products and services.

While Turban *et al.* (2007) identified the Knowledge Management Cycle, which follows the following six steps:

- 1) create knowledge – as people determine new ways of doing things, or develop know-how, or bring external knowledge into the organisation, new knowledge is created;
- 2) capture knowledge – new knowledge identified as being valuable should be represented in a reasonable way;
- 3) refine knowledge – new knowledge should be placed in context so that it is actionable. Human insights should be stored with explicit facts;
- 4) store knowledge – knowledge that is useful should be stored in knowledge repositories, allowing all employees to access it;
- 5) manage knowledge – the repository should be kept current, reviewing knowledge often to verify it is relevant and accurate;
- 6) disseminate knowledge – knowledge should be in a useful format, allowing it to be available to anyone in the organisation who needs it, anywhere and anytime.

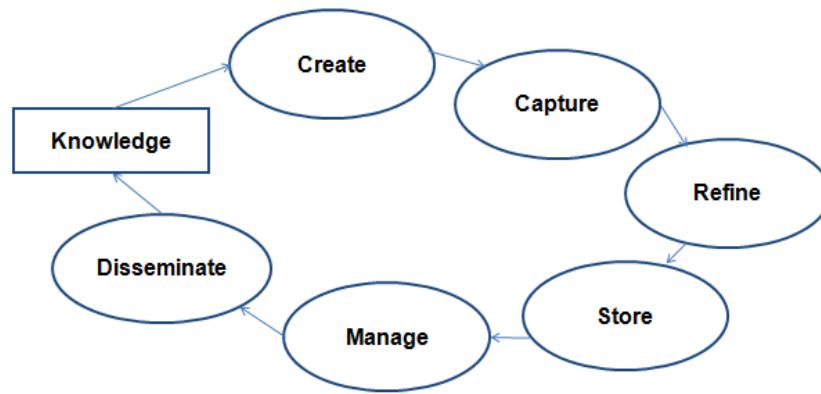


Figure 11 - Knowledge Management Cycle (Turban *et al.*, 2007:496)

As the knowledge is disseminated, individuals develop, create, and identify new knowledge or update old knowledge, replenishing the system. Knowledge is a resource that is not consumed when used, but can age rapidly, so needs to be updated frequently (Turban *et al.*, 2007).

Turban *et al.* (2007) suggest that there are two fundamental approaches to knowledge management; the process approach and the practice approach (Turban *et al.*, 2007):

- *The Process Approach* attempts to codify organisational knowledge through the utilisation of formalised controls, processes, and technologies. Organisations that utilise this approach, implement explicit policies governing how knowledge should be collected, stored, and disseminated throughout the organisation. The Process Approach would utilise Information Technology systems to enhance the quality and speed of knowledge creation and distribution within the organisation. A criticism to this approach is that it may fail to capture much of the organisations tacit knowledge, and is thus favoured by organisations with standardised products or services where knowledge is static in nature.
- *The Practice Approach* assumes that a great deal of an organisations' knowledge is tacit in nature, and that solutions provided by the process approach are not suitable to all organisations. The focus of the Process Approach is to build social environments or communities of practice to facilitate the sharing of tacit understanding. These communities would share ideas, insights, and best practices, and this approach is mostly used by organisations that provide highly customised solutions to unique problems. Knowledge is mostly shared through person-to-person contact or via collaborative communication systems such as email or groupware. Due to the tacit nature of this

knowledge, which is difficult to extract, store and manage, most solutions include explicit means of indicating the appropriate individuals to contact when required.

While both approaches work, depending on the organisations needs, many organisations utilise a hybrid approach including aspects from both approaches. As the development process starts, it is difficult to know how to extract tacit knowledge from the sources, and as such repositories are utilised to store explicit knowledge in documented form, including tacit knowledge storing contact information about experts and their area of expertise. Over time best practices and generated knowledge are added to this repository, when eventually a process approach may be attained. Irrespective to which approach is used, or in which order, what is clear is that a system or knowledge repository will be required to store and manage the knowledge in (Turban *et al.*, 2007).

2.4.3.5 Knowledge Management Systems

To build a Knowledge Management System, there are several approaches that can be utilised by organisations. In general three different approaches are observed; bottom-up, decentralised knowledge management systems, top-down, centralised knowledge management systems, and middle-up-down knowledge management systems (Ponelis and Fairer-Wessels, 1998; Civi, 2000):

Table 3 - Knowledge Management Approaches

		Top-down	Bottom-up	Middle-up-down
Who	Agent of knowledge creation	Top Management	Entrepreneurial individual	Team (with middle managers as knowledge engineers)
	Top Management Role	Commander	Sponsor/mentor	Catalyst
	Middle Management Role	Information Processor	Autonomous entrepreneur	Team Leader
What	Accumulated Knowledge	Explicit	Tacit	Explicit and Tacit
	Knowledge Conversion	Partial conversion focused on combination and internalisation	Partial conversion focused on socialisation and externalisation	Spiral Conversion of combination, internalisation, socialisation, externalisation

Where	Knowledge Storage	Computerised database, manuals	Incarnated in individuals	Organisational Knowledge Base
How	Organisation	Hierarchy	Project team and informal network	Hierarchy and taskforce (hypertext)
	Communication	Orders and Instructions	Self Organising Principles	Dialogue and use of metaphor and analogies
	Tolerance for ambiguity	Chaos and Fluctuation not allowed	Chaos and Fluctuation premised	Create and amplify Chaos and Fluctuation
	Weakness	High dependency on top management	Time consumed, cost of coordinating individuals	Human exhaustion, Cost of Redundancy

Source: Civi (2000:169)

- Bottom-up systems emphasise people rather than information technology. It is market driven and easy to use, with low administrative costs, and can be managed without management intervention. Without management support this model is not useful at bringing about combination, and internalisation. While the development of a knowledge management system by the users results in a relevant and simple to use system, if knowledge management is not a key component of corporate strategy, it will not have a major impact for the organisation.
- Top-Down management systems follow the classical hierarchical model with a pyramid shape. Information is passed to the top of the pyramid, to top management, who determine the vision or plans of the system. The plans and orders are then passed down the hierarchy, to middle management who changes them to be suitable for front line employees. The model provides limited scope to achieve socialisation and externalisation goals. The systems are based on advanced technologies which stress the importance of connecting individuals. Connections are typically established through large central organisation or knowledge centre, whose task it is to synthesise and distribute the organisations knowledge.
- Middle-up-down management was proposed by Nonaka and Tauchi in 1995, which integrates the benefits of bottom-up and top-down management models. The model is the most desirable for bringing about organisational knowledge creation. The model emphasises the role of middle management, as team leaders, who create the knowledge though a spiral conversion process involving both top management and front line

employees. The process centres middle managers both vertically and horizontally which is most effective for knowledge creation.

Based on his experience working with many organisations, Wiig (1997) has observed that organisations pursue different Knowledge Management system strategies to best match their culture, priorities, and capabilities. Organisations attempt to derive the best business value from their existing knowledge-based assets or try to create new, competitive knowledge-related assets where that is required (Wiig, 1997). According to Wiig (1997), to achieve these goals, organisations pursue one or several of the five basic knowledge centred strategies.

- 1) Knowledge strategy as business strategy – the focus is on knowledge creation, capture, organisation, renewal, sharing and use, to allow the best possible knowledge to be available and utilised at each point of action.
- 2) Intellectual Asset Management strategy – the focus is on knowledge management of specific intellectual assets such as patents, customer relations, organisational arrangements, and other structural assets at an enterprise level.
- 3) Personal Knowledge Asset Responsibility strategy – the focus is on personal knowledge-related investments, innovations and the competitive state, renewal, effective use, and availability to others of knowledge assets within an employee’s area of accountability, including the utilisation of the most competitive knowledge to the employee’s area of work.
- 4) Knowledge Creation strategy – the focus is on knowledge learning, basic and applied research and development, and the motivation of employees to innovate and capture lessons learned to obtain new and better knowledge that would lead to greater competitiveness.
- 5) Knowledge Transfer strategy – the focus is on the use of systematic approaches to transfer, through the obtaining, organising, restructuring, warehousing, memorising, repackaging for the deployment and distribution, of knowledge to points of action where it will be used to perform work.

From the above discussion it is clear that approaches and strategies are required to be discussed and selected before the information technology component of knowledge management is

approached. In the past, the management of information system departments' have focused on the capturing, storing, managing and reporting of explicit knowledge. Organisations now realise both tacit and explicit knowledge need to be integrated into formal information systems. The change has come due to individuals leaving organisations more frequently than in the past, due to rapid turnover, change and downsizing, and as a result of this, taking their knowledge and expertise with them. A critical goal of knowledge management is to retain the valuable know-how that can so easily and quickly leave an organisation. Knowledge Management systems refer to the use of modern information technology to systematise, enhance, and expedite intra- and inter-organisational Knowledge Management (Turban *et al.*, 2007).

Knowledge Management systems are information systems designed specifically to facilitate the codification, collection, integration and dissemination of organisational knowledge, that allow organisations the ability to be flexible and respond quickly to changing market conditions, become more innovative, improve decision-making and productivity (Alavi and Leidner, 2002).

Knowledge Management Systems provide the technological basis for efficient knowledge management. The knowledge management system facilitates knowledge interactions, distribution, retrieval, and retention, and also influences the user's acceptance of the corporate knowledge philosophy and subsequent readiness to accept future technological innovation. Knowledge Management systems enable knowledge capture and exchange to occur freely, readily and openly across many stakeholders in organisations. Each user is provided with a channel to acquire, document, transfer, create and apply knowledge to meet the organisations knowledge priorities (Debowski, 2006).

Turban *et al.* (2007) identify the two primary functions of Information Technology in knowledge management as retrieval and communication, they further believes that Information Technology can extend the reach and range of knowledge use and enhances the speed of knowledge transfer. Knowledge is dynamically refined over time, and the knowledge in a good Knowledge Management system can never be complete owing to the environment changing consistently, requiring knowledge to be updated reflecting these changes (Turban *et al.*, 2007).

Knowledge Management Systems are diverse. They are not comprised of a single technology, but instead consist of a collection of indexing, classifying and information retrieval techniques, coupled with methodologies designed to achieve results for the user (Barnes, 2002). The key

technologies utilised by Knowledge Management systems enable: content and workflow management; which categorises knowledge, directing it to employees who can benefit from it; search functionality, which allows users to look for relevant knowledge; and collaboration, to share the corporate knowledge (Barnes, 2002).

Jennex (2009:6) concludes that Knowledge Management Systems “*utilise technology, processes, and people to capture, store, organise, and present data, information, and knowledge to those that need it when they need it.*” A typical Knowledge Management System may therefore use (Jennex, 2009):

- A Knowledge Management strategy that identifies critical knowledge, where it is, how it is to be stored, and how it is to be made available,
- Technologies such as semantic web to overcome cultural interpretations or codifications of knowledge,
- Wikis or other collaborative technologies to facilitate the flow of knowledge and the generation of knowledge through collaboration,
- Mapping techniques to facilitate the visualisation of knowledge repositories and taxonomy,
- Processes that incorporate knowledge capture and/or use,
- Knowledge creators, holders, and/or users working within a knowledge sharing and using culture,
- A Knowledge Management governance structure that identifies metrics and Knowledge Management policies and provides management support,
- Knowledge mobilisation initiatives such as SCM, CRM, and Business Intelligence.

Knowledge Management is more a methodology applied to business practices than a technology or product, but Information Technology is crucial to the success of every Knowledge Management system (Turban *et al.*, 2007). Information Technology enables knowledge Management by providing the architecture on which it can be built, and is developed using three sets of technologies (Turban *et al.*, 2007; Mutean, 2009):

- Communication technologies enable users to access required knowledge and allow them to communicate with each other. Communication capabilities are provided by email, the internet, corporate intranets, and web-based tools.
- Collaboration technologies provide a means to perform group work. Synchronous technologies allow groups to work together on common documents at the same time. Asynchronous technologies allow for group work at different times, while both allow for working in the same or different location. Electronic brainstorming and virtual spaces allow for enhanced group work and knowledge contribution.
- Storage and Retrieval technologies are utilised to capture, store and retrieve explicit and tacit knowledge. Electronic document management systems, data warehouses and knowledge repositories are common storage systems.

Kerschberg (2001) developed a knowledge management architecture model which is capable of acquiring data from heterogeneous information sources and services. The figure below denotes the architecture including a Knowledge Presentation, Knowledge Management, and Data Source layer.

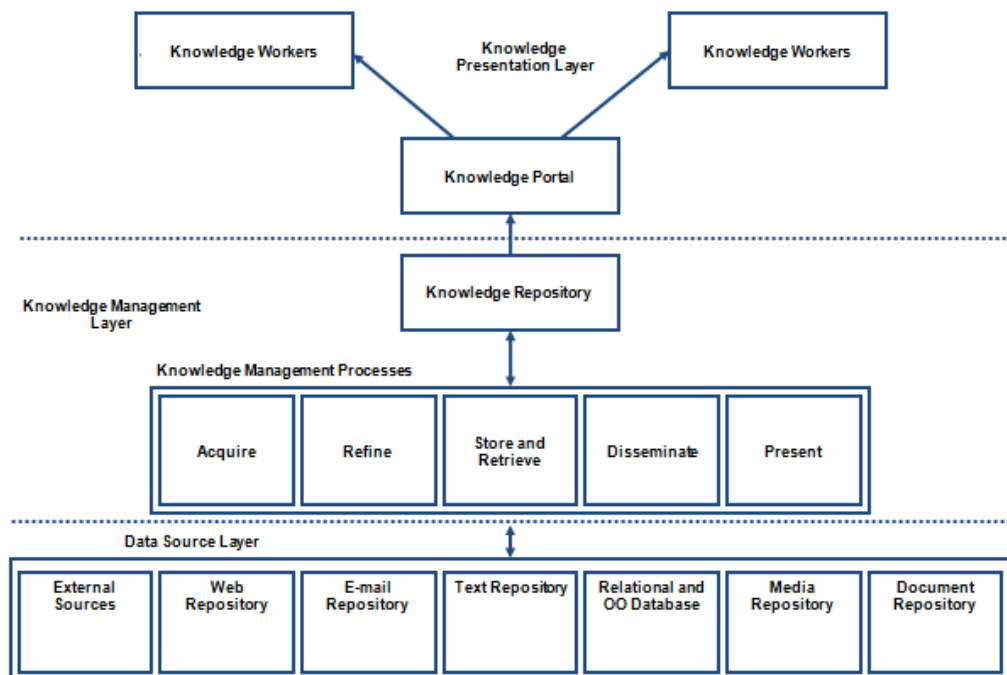


Figure 12 - Three-layer Knowledge Management Architecture (Kerschberg, 2001)

The Knowledge Presentation and Creation layer allows knowledge workers to obtain personalised information via knowledge portals, to perform specialised search functions for required information, to collaborate in the creation of new knowledge, and to transform tacit knowledge into explicit knowledge. The knowledge creation services allows knowledge workers to create value added knowledge by annotating existing knowledge, providing metatags, and aggregating heterogeneous documents into named collections (Kerschberg, 2001; Mutean, 2009).

The Knowledge Management layer includes the knowledge repository and the processes utilised to acquire, refine, store and retrieve, disseminate and present knowledge. These processes create the knowledge for the repository. Tools include data-mining, meta-tagging, ontology and taxonomy, and intelligent agent middleware (Kerschberg, 2001; Mutean, 2009).

The Data Sources layer includes the organisations internal data sources including documents, electronic messages, website repositories, media repositories of video, audio, and imagery, and external data sources including web services (Kerschberg, 2001; Mutean, 2009).

The knowledge management architecture model acknowledged above clearly identifies the knowledge repository and the knowledge portal as two fundamental components of a knowledge management system, and is discussed below:

- A *Knowledge Repository* is a coordinated knowledge resource that integrates a range of content sources (Debowski, 2006:349). Liebowitz (1999:1-10) identified a knowledge repository as “an online, computer-based storehouse of expertise, knowledge, experience, and documentation about a particular domain of expertise.” Its goal is to capture and store knowledge (Turban *et al.*, 2007: 494).
- *Knowledge Portals* are rich virtual, web-based work environments which provide organisations with a shared information work space to facilitate the creation, exchanges, retention, and re-use of knowledge. To achieve this, knowledge portals comprise three distinct areas; a content space to facilitate information access and retrieval, a communication space to support the negotiation of collective interpretations and shared meanings, and a coordination space to support cooperative work action and work processes (Detlor, 2004). Mack, Ravin and Byrd (2001) identify five key processes that knowledge portals should support in their designs:

- They should firstly facilitate the capture and extraction of knowledge, to a database.
- They need to support the analysis and organisation of information.
- They need the ability to assist knowledge workers in finding the information they are looking for, through search technologies.
- They require the need to create and synthesize information.
- The ability to distribute and share knowledge.

A web-based enterprise portal is bidding to become the common information highway for the future management of organisations. A corporate portal is able to effectively create a shared community across the organisation, and to external organisations. The Portal should represent a single entry point for collaboration, information dissemination and communication, application functionality and interactive capabilities within or without the corporate entity, provided in an efficient and centralised manner. Collaboration tools, such as chat, threaded discussions and workflow, should be used for the creation of knowledge. The created knowledge should then be captured and stored for future use. External knowledge should be brought into the organisation, and users should be able to easily place their knowledge into the portal, and be easily retrievable, and have the ability to push relevant knowledge to the users (Muntean, 2009).

Utilising the conceptual framework for knowledge management, and the functionality provided by knowledge management systems, the resultant knowledge production and integration into the business environment will result in an organisation wide knowledge base (Detlor, 2001). Once the right technology solution is chosen, it becomes necessary to introduce it properly to the entire organisation, to allow it to gain the participation of every employee (Turban *et al.*, 2007). A knowledge management effort consists of only 10 to 20 percent technology, while the rest of the effort is organisational (Turban *et al.*, 2007).

Turban *et al.* (2007) identifies the major factors that lead to knowledge management project success as:

- 1) a link to economic performance or industry value,

- 2) technical and organisational infrastructure on which to build,
- 3) standard, flexible knowledge structure,
- 4) knowledge friendly culture,
- 5) clear purpose and language,
- 6) change in motivational practices, to create a culture of sharing,
- 7) multiple channels for knowledge transfer,
- 8) senior management support.

Success clearly depends on a strategic logic for knowledge sharing, the appropriate choice of infrastructure, an implementation approach that addresses common barriers, a motivation for employees to share knowledge, resources to capture and synthesize organisational learning, and a ability to navigate the corporate knowledge network to find the right people and data (Turban *et al.*, 2007). Intelligent organisations understand that knowledge is an intellectual asset, which grows over time, which when harnessed effectively, lead to sustained competition and innovation (Turban *et al.*, 2007).

2.4.4 Strategic Intelligence

An organisation needs to know about its business environment (its activities, resources, markets, customers, products, services, and costs) to plan for its current and future success. This knowledge, which could allow for the organisation's successful functioning needs to be disseminated organisation-wide. This results in one of the basic challenges for senior management which is how to create a mindset about the present and the future in order to anticipate trends and the directions to be taken (Tham and Kim, 2002).

Strategic Intelligence can be identified as what a company needs to know of its business environment to enable it to gain insight into its present processes, anticipate and manage change for the future, design appropriate strategies that will create business value for customers, and improve profitability in current and new markets (Tham and Kim, 2002).

Marchand and Hykes (2007) believe strategic intelligence is about having the right information in the heads of the correct people at the right time so as to allow those people to make informed

business decisions about the future of the organisation. Marchand and Hykes (2007) further explain that information is the basis of strategic intelligence, and that without the right information, it would prove difficult for employees to make the correct decisions required in order to achieve and sustain market leadership. It is therefore understandable that companies with effective strategic intelligence processes could typically be the ones that can manage and utilise information to anticipate successfully and respond to future trends or opportunities (Marchand and Hykes, 2007).

Tham and Kim (2002) believe the value of strategic intelligence is seen through the improving of the capabilities of managers and workers to learn about potential changes within their business or industry environment which could require the rethinking of business processes and practices. The individuals should then be open to share their perceptions, new information and insights whenever and wherever the organisation requires such information. The major challenge for strategic intelligence would then be to increase the “*intelligence quotient*” of all organisational managers and employees, rather than to assume that the task of gathering and disseminating intelligence about the future is the sole responsibility of a particular function or specific senior executives (Tham and Kim, 2002).

To shape an organisation to achieve competitive advantage in the future, management is required to understand what the organisation’s future could potentially look like. To provide management with this information requires the assimilation of diverse sources of business, market, political, technological, environmental, and social information (Marchand and Hykes, 2007). According to Marchand and Hykes (2007) the effectiveness of an organisation in gathering and managing all of this information depends upon three key capabilities: information process, technology, and people, and that all managers should consider the following tasks as important components of their job functions (Marchand and Hykes, 2007):

- The development of information processes that enable and encourage people to effectively identify and leverage strategic business information,
- Providing the correct technology to enable effective information use and delivery,
- The building of an organisation-wide culture that encourages and guides employees in their use of information.

Marchand and Hykes (2007) believe it is critical that executives understand the key role strategic intelligence can play in achieving competitive advantage and future success, and continue to find ways to improve their approach to strategic intelligence.

Marchand and Hykes (2007) is of the opinion that Strategic Intelligence should provide an organisation with the information it needs about its business environment to be able to anticipate change, design appropriate strategies that will create value for customers and create future growth and profits for the organisation in new markets within or across industries. Strategic Intelligence is a means of providing the highest levels of management, information on the competitive, economic, and political environment in which the organisation operates currently, and could operate in, in the future, to support strategic decision-making (McGonagle and Vella, 1999).

Strategic Intelligence typically supports those in senior management, who make and execute overall organisational strategy (McGonagle and Vella, 1999). Liebowtiz (2006a) is of the belief that Strategic Intelligence provides value-added information and knowledge for use in organisational strategic decision-making. Strategic Intelligence's most common application is in the development of (McGonagle and Vella, 1999):

- strategic (3 – 5 year) plans,
- capital investment plans,
- political risk assessment,
- merger and acquisition, joint venture, and corporate alliance policies and plans,
- long-term research and innovation.

Strategic Intelligence's interest is less on the present than on the past and on the future, with a time horizon spanning two years in the past, to five to 10 years in the future. By collecting and analysing data from the past, the organisation can evaluate the success (or failure) of its strategies and those of its competitors. This will permit the organisation to better weigh its options for the future (McGonagle and Vella, 1999).

2.4.4.1 The two most common approaches to Strategic Intelligence

To develop foresight and intelligence about future trends, organisations can utilise one of the two most common approaches to Strategic Intelligence, either a functional approach or a process approach (Marchand and Hykes, 2007; Tham and Kim, 2002):

- The Functional Approach

Most organisations are separated into departments on a functional basis. Each functional department assembles many pools of isolated external and internal data or intelligence, which is often used towards making local departmental decisions. Examples include, the sales department which collects information on customer contracts, transactions and services; the marketing department conducts surveys on market trends and customer satisfaction; the Research and Development group analyse technological developments and new product ideas; the manufacturing department focuses on process innovations and product engineering; whereas the information technology department may monitor trends in the IT industry and technical developments; and the human resource department which monitors workforce changes and recruitment strategies. Strategic Intelligence in functional organisations is often confined to isolated pools created by the departments who have applied their existing mindsets concerning the organisations direction and strategies for success. Information is rarely widely spread access the organisation or used by other levels of management in the organisation resulting in the decision making process producing inferior results.

Within a functionally oriented organisation, there are four barriers to sharing and utilising strategic intelligence to shape the future. These are:

1. the isolated pools of data are heavily influenced by the functional view of the organisation rather than a broader, general-management view of the organisation,
2. the interpretation of the data is often affected or constrained by implicit, hidden assumptions, blind spots or taboos, or biases of past successes or failures, organisational or governmental policies, current organisational directions and exploitations of the future,

3. managers have limited or no access to organisational-wide data or mental models upon which they can effectively act upon with agility,
 4. any dissemination of knowledge on an organisation-wide basis should be accomplished with minimal inconsistency and un-ambiguity in interpretation.
- The Process Approach

The process approach, in contrast to the functional approach to Strategic Intelligence, is based on a very different framework. The framework for a process approach to Strategic Intelligence should include the following principles.

1. Not all of the organisational knowledge or decision-making responsibility lies with top management. Strategic Intelligence should rather be organised to address the needs of the business unit and other general managers.
2. There must be a sharing of Strategic Intelligence throughout the organisation rather than a central point of processing. This decentralisation encourages a diversity of employee input and perspectives about the future. This is critical as changes in industries, technologies, markets and customers accrue rapidly resulting in no single group of senior executives being able to cope with the diverse signals from the business environment, nor properly factor them into new mindsets about future business strategies and opportunities.
3. Technologies should be deployed for constantly managing and sharing internal and external intelligence accessible to managers acting on common problems and issues anywhere, any time.
4. The current challenge is not to confine Strategic Intelligence to the top of an organisation but instead to distribute it across all levels, both globally and laterally to be aligned with decision-making responsibilities. Within this context, Strategic Intelligence should be deep-rooted within a company's organisational culture, rather than being grafted on as another function.

It is clear that the process approach to Strategic Intelligence would promote a culture of teamwork, the sharing and contribution of information, including its re-use, and the continuous empowering of employees at all levels of the organisation.

2.4.4.2 Creating Value through a Strategic Intelligence Process

Six major activities are associated with the Strategic Intelligence process (Marchand and Hykes, 2007). They continue that each activity adds value to the intelligence, and in turn influences the creation of value for the organisation through the progressive transformation of data to intelligence. The activities that comprise the Strategic Intelligence Process include the following (Marchand and Hykes, 2007):

- **Sensing** which involves becoming aware of and identifying appropriate indicators (internal or external to the company) of change.
- **Collecting** focuses on ways of gathering data that are relevant and potentially meaningful.
- **Organising** involves structuring the collected data into appropriate formats and media as information sources.
- **Processing** focuses on analysing the information with appropriate methods and tools.
- **Communicating** involves packaging and simplifying access to information for users.
- **Using** concentrates on applying information in decisions, action-oriented planning, and implementation.

With the process in place, organisations often forget that the process's success rests heavily upon the employee mindsets and organisational culture, as well as the technological tools available to aid the process (Marchand and Hykes, 2007). They continue that managers should create a culture where diversity of mindsets are explained, tested, and selected so the organisation is capable of rapid navigation in the constantly shifting market conditions (Marchand and Hykes, 2007). According to Marchand and Hykes (2007) employees should be:

- encouraged to sense changes or trends in the organisations business or industry environment to try and determine how these changes may impact business practices,

- shown how to share their perceptions, new information, and insights wherever in the organisation such information is needed,
- taught where to go to learn about these changes and find the insight they need to make informed business decisions,
- viewed as a valuable resource when it comes to collecting and analysing strategic intelligence.

The organisations management should also provide employees with the necessary tools to contribute to the Strategic Intelligence process. Multiple technological solutions, such as email, content management systems, intranets, data mining, analytical software, and mobile devices, are available to keep employees connected and can easily support the communication and sharing of information among a large and geographically disperse employee base (Marchand and Hykes, 2007).

2.4.4.3 Strategic Information Systems

Computer-based information systems of all kinds have been developed and utilised to enhance an organisation's competitiveness and create strategic advantage for several decades (Turban *et al.*, 2007). Some of these systems became especially critical to organisations long-term prosperity and survival, while others even changed the business of the organisation (Laudon and Laudon, 2003). Systems such as these, that were designed to be powerful tools for staying ahead of their competitors, were called Strategic Information Systems (Laudon and Laudon, 2003).

Neumann (1994:1) defined a Strategic Information System, by focusing on the use of the system, which is "... *to support the competitive strategy of a company in its industry and its plan for gaining and maintaining competitive advantage, or reducing its competitive disadvantage relative to its rivals*" while Ciborra (1993) identified Strategic Information Systems as those that generate competitive advantage and that essentially support the business against competition and in the process of planning and implementing strategy. Laudon and Laudon (2003) define Strategic Information Systems with a broader view as "*computer systems at any level of the organisation that change goals, operations, products, services or environmental relationships to help the organisation gain a competitive advantage*", while Oz and Jones (2008) believe that Strategic Information Systems are created to assist organisations in

seizing opportunities and define Strategic Information Systems as “*any information system that gives its owner a competitive advantage*”.

Strategic Information Systems are systems that are built to support or shape an organisations competitive strategy by solving problems or seizing opportunities. The systems are characterised by their ability to change significantly the manner in which business is conducted, to give the organisation a strategic advantage by enabling the creation and appropriation of value. The systems cannot be classified by organisational structure or functional area, and can include any information system that could potentially change the goals, processes, products, or environmental relationships to assist the organisation in gaining a competitive advantage or reducing a competitive disadvantage (Oz and Jones, 2008; Piccoli, 2008; Turban *et al.*, 2007).

An organisation’s competitive strategy is a broad based formula for how the organisation will compete, what its goals should be, and what plans and policies will be required to carry out those goals (Porter, 1985). Competitive strategy is the art and science of being unique (Piccoli, 2008). The organisation, through its competitive strategy, seeks to create a competitive advantage over its competitors within its industry by dominating the market (Oz and Jones, 2008; Piccoli, 2008; Turban *et al.*, 2007). A Strategic Information system helps an organisation achieve this advantage through its contribution to the organisations strategic goals or through its ability to increase organisational performance and productivity (Piccoli, 2008; Turban *et al.*, 2007).

Oz and Jones (2008) identified three strategies for developing Strategic Information Systems including creating one from scratch, developing a new one by modifying an existing system, or through the discovery that an internal system, already in place, could be modified to be used to create a strategic advantage.

Strategic Information Systems were considered to be either outwardly focused, or inwardly focused (Turban *et al.*, 2007).

- An outwardly focused Strategic Information System is aimed at increasing the direct competition in an industry and is visible to all. The system could provide new services to customers and/or suppliers, increase the number of customers switching costs, or lock in suppliers, with the specific objective of gaining better results than those of competitors.

- An inwardly focused Strategic Information System is more focused on enhancing the organisation's competitive position by increasing an employee's productivity, streamlining business processes, and making better internal decisions. This approach is not visible to competitors, and cannot be easily copied.

Strategic Information Systems are mostly concerned with an internal focus, implementing internal software systems that can increase internal processes and productivity, and normally consist of transaction processing systems, enterprise resource planning systems, executive information systems, and various other internal systems. While implementing such systems does have a great effect on organisational productivity, and can lead to competitive advantage, implementing such systems may be a complex undertaking due to the magnitude and complex nature of the systems (Turban *et al.*, 2007).

Due to the increasing number of advances in systems development, both outward, and inward focused systems, can now be duplicated or imitated, or even replaced with better off-the-shelf software packages. Therefore, the major problem organisations are now facing is how to sustain competitive advantage (Turban *et al.*, 2007). Oz and Jones (2008) concludes that for Strategic Information Systems to assist organisations achieve competitive advantage, information systems must serve an organisational goal rather than just providing information; and the development thereof will require the collaboration of the Information Systems functional unit with the organisations other functional units to pursue the organisational goal.

2.4.4.4 Strategic Intelligence Systems

Montgomery and Weinberg (1998) identified the need for further research into Strategic Intelligence systems (SIS) utilized by Management. They described strategic intelligence systems as those that focused on "*the selection, gathering, and analysis of information needed for strategic planning*". They have identified the purpose of a Strategic Intelligence System as to enhance the intelligence cycle which when utilised; during the Strategic planning phase of Strategic Management, in the correct way, could lead to innovation and corporate advantage.

Strategic Intelligence consists of the aggregation of the various types of intelligentsia, which creates a synergy between Business Intelligence, Competitive Intelligence, and Knowledge Management to provide value-added information and knowledge toward making organisational strategic decisions. Strategic Intelligence signifies the creation and transformation of information

or knowledge that can be used in high-level decision-making. The emphasis is on how best to position the organisation to deal with future challenges and opportunities to maximise the organisation's success (Liebowitz, 2006a).

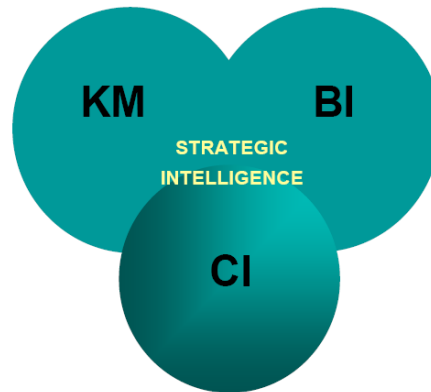


Figure 13 - Strategic Intelligence (Liebowitz, 2006a)

With the merging of Business Intelligence, Competitive Intelligence, and Knowledge Management, Strategic Intelligence is enabled as a strategic function of the organisation, better to inform and improve the decision-making process. Strategic Intelligence, through the leveraging of internal and external intelligence from Business Intelligence, Competitive Intelligence and Knowledge Management, is created to help the organisation maximise its strategic mission and vision (Liebowitz, 2006a).

Montgomery and Weinberg (1998) argue that strategic planning is an essential managerial task, and that a strategic plan is no better than the information on which it is based. They further argue that not enough focus has been placed on the selection, gathering, and analysis of information needed for strategic planning through the use of a strategic intelligence system. The number of strategic planning tools have increased dramatically over the past decades, but for some the collection of information to populate these manual tools have become cumbersome and ineffective (Montgomery and Weinberg, 1998).

The design of a Strategic Intelligence System should incorporate an understanding of the purpose for which it is intended. Methods are required to eliminate the collection of vast quantities of meaningless data, and prevent a focus that is too narrow resulting in missed information (Montgomery and Weinberg, 1998). As a result the following three purposes are listed (Montgomery and Weinberg, 1998):

- Defensive intelligence which is oriented toward avoiding surprises. Organisations plan and manage themselves on the basis of certain implicit and explicit assumptions about their environment. A properly designed Strategic Intelligence System should monitor the organisations environment to ensure the assumptions remain true, and notify the appropriate parties if major changes occur.
- Passive Intelligence is designed to provide benchmark data for objective evaluation relative to competition.
- Offensive intelligence is further designed to identify opportunities, which would otherwise not be discovered without the assistance of a Strategic Intelligence System.

Furthermore, Montgomery and Weinberg (1998) suggest that, to accomplish the purposes of defensive, passive and offensive intelligence, it is critical that the developed Strategic Intelligence System should focus on the following six environments (Montgomery and Weinberg, 1998).

1. Competitive Environment is one of the most critical on which to focus on. The organisation should monitor its current competitors, but also scan the environment for potential competitors. The cost of ignoring potential entrants to the competitive landscape could have severe effects on the organisation. Customers could also be potential competitors through backward integration.
2. Technological Environment is crucial due to the evolutionary impact on existing products, but also because of the many technological innovations introduced from outside the traditional industry.
3. Customer Environment allows for the analysis of current customer and noncustomer trends; reveals emerging technologies, competitive advantages or disadvantages, and new product ideas. Customers are in the perfect position to suggest new sources of innovation or product ideas but are mostly neglected.
4. Economic Environment is of overriding importance to an organisation. Issues such as gross national product, trade deficits, inflation, interest rates, and stock market movement are of obvious importance. The cost of raw materials, labour, and rates and taxes all impact heavily on an organisation if they do not foresee the change.

5. Political and Regulatory Environment is a difficult environment in which to be caught unaware. Advanced briefing could potentially alter a specific outcome, or have an effort abandoned before a significant amount of managerial time is wasted.
6. Social Environment is a rapidly changing environment with issues such as pollution control and conservation currently highlighted. With appropriate intelligence, organisations can anticipate and react to shifts in an functional manner unavoidable before.

Strategic Intelligence Systems should be seen as a critical component of the Strategic Intelligence Cycle, where the Strategic Intelligence System acts as a feeder process (taking part in the directing and collecting stages of the cycle) to the later stages of the cycle – processing and analysis, dissemination, and use. (Montgomery and Weinberg, 1998)

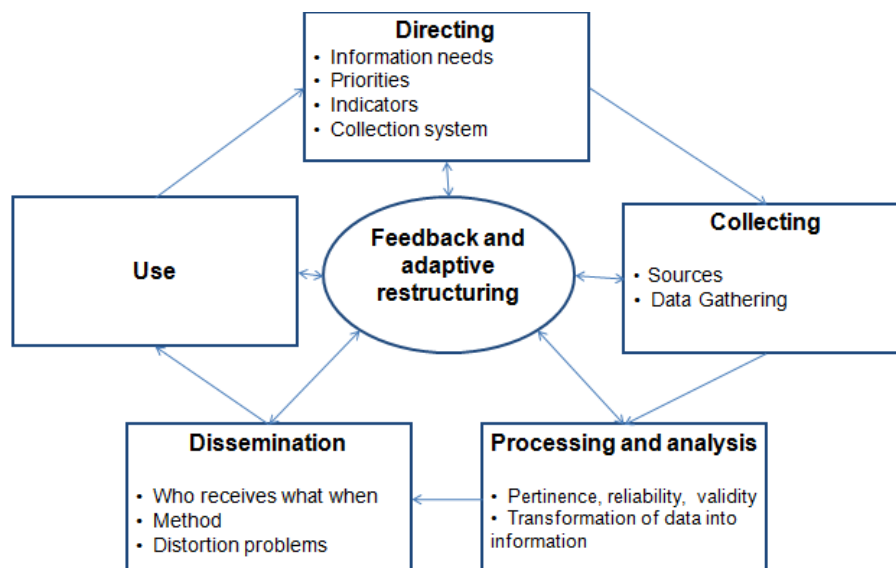


Figure 14 - The Intelligence Cycle (Montgomery and Weinberg, 1998:46)

The Strategic Intelligence System performs three critical functions (Montgomery and Weinberg, 1998):

➤ Directing the Intelligence Function

As the first stage of the intelligence cycle, the Strategic Intelligence System is concerned with the establishing of parameters for what information is required, what priorities should be established, and what indicators should be monitored. These are:

i. Needs

Management has a desire for environmental information. The generation of data is not the problem, but rather the focus on how to determine what information is relevant and actionable. Certain strategic planning tools can provide a framework for ascertaining what information is needed and how to utilise it if obtained.

A simple framework for specifying needs is used to identify the organisations:

- areas of influence – product/market segments,
- the immediate zone – which represents areas of competitive activity which are close to, but not directly competitive to the organisations current operations,
- areas of interest – which represent potential opportunities or threats in the longer term.

ii. Priorities

Intelligence priorities should be established on the basis of:

- the importance of becoming aware of an event,
- the likelihood that the event will occur, and
- the costs of anticipation and reaction.

A Strategic Intelligence System is justified if the costs of reacting to specific identified events exceed the costs of anticipating them and responding proactively.

iii. Indicators

While most organisations would enjoy having direct measures of their environments intentions, it is often impossible; hence organisations must resort to using indicators or surrogate measures.

➤ Collecting Intelligence

Intelligence collection entails scanning the environments in which an organisation exists in search of data that could individually or collectively provide the organisation with decision-relevant information. Intelligence scanning can be divided into two subcategories: surveillance and search.

- Surveillance consists of a viewing and monitoring function which does not focus on a single target or objective, but rather observes multiple aspects of the environment to detect relevant changes.
- Search includes a deliberate investigation and research to seek answers potentially triggered by the surveillance function.

Legitimate sources of intelligence are vital components of the collection process and are in abundant supply when the intelligence department function applies imagination and effort in the structuring of a Strategic Intelligence System. Sources include government, customers, professional associations, company personnel, and other sources such as the internet, online intelligence databases, and the incorporation of competitive and business intelligence data.

➤ Analysis and Processing

Organisations use a variety of approaches to combine, sort, and process the environmental data in order to produce timely and relevant information for forming, monitoring, evaluating, and modifying strategy. The strategic data management problem is further complicated by the emphasis managers' place on personal communication, and the continuous unstructured nature of strategic decision making.

Despite the difficulties mentioned above, intelligence derivation is crucial in the formation of strategies, and it is important that a formal evaluation of data is done.

During the analysis and processing stage two functions take place:

- Evaluating data includes determining the pertinence, reliability, and validity (accuracy) of data obtained.

The evaluation of pertinence includes the pertinence to the number of people in the organisation and specifically determines if data are relevant to the organisation, if it is needed immediately, and if so by whom.

Reliability evaluates the source or agency from which data is gathered or transmitted.

Validity investigates the probable truth of the data itself. An investigation is done through a comparison with other data that may be available from other sources, searching for associated indicators, and face validity.

– Transformation of data into Information.

While ten years has passed since Montgomery and Weinberg (1998) identified the six transformation functions by which data can become information, they are still very much valid. Each varies considerably in complexity, and each have at its core a distinctive transformation. The functions do overlap but do not necessarily occur sequentially and could occur at several levels within the organisation. The six transformation functions are (Montgomery and Weinberg, 1998):

- Transmitting data is the movement of data from one point or person in the organisation to another. Transmission can occur simultaneously with some of the other processing functions and data received should be communicated to those who could use it the most effectively,
- Accumulating data is the storage of data in such a way that it can be retrieved by those that require it. A substantial database could provide a source from which the organisation can learn from itself and its environment; especially in instances where unstructured strategic problems are to be resolved, where needs are difficult to define beforehand,
- Aggregating data is the function in which many data points are collapsed into a smaller set of pertinent information. It is the first function during which data is manipulated rather than just transferred or made available to managers. The summarisation of environmental data is a vital function

given the vast amounts of data available and the limited time available by managers to review information,

- Analysing data is a formal process that attempts to find and measure relations among variables. While mathematical and numeric procedures are heavily utilised, the analysis remains a logical process,
- Recognising data patterns is not as structured or formal as the analysis process, but also attempts to find patterns or relations among variables. It is imperative that the human abilities to perceive and determine patterns among disparate sets of information and data, which are critical distinctive elements in the process of pattern recognition, are utilised,
- Mixing data was a further process created due to the unstructured and often unstable nature of strategic problems which require that an additional transformation function be defined which brings together the apparently unrelated data that are spread across the organisation in order to identify linkages.

Montgomery and Weinberg (1998) further believed that the construction of a viable Strategic Intelligence System is extremely complex due to the unstructured nature of strategic decisions, the difficulty of separating out important and relevant information from large amounts of data accessible to management, and the great reliance managers' place on personal information sources.

For a Strategic Intelligence System to become a worthwhile project and strategic asset in the long term, an organisation must have a real commitment to strategic planning (Montgomery and Weinberg, 1998).

2.4.4.5 Implementation of Strategic Intelligence

Marchand and Hykes (2007) are of the opinion that in most situations, a more distributed approach to Strategic Intelligence is preferable which would allow for information sharing across the entire organisation. To build a strong strategic intelligence process incorporating a Strategic Intelligence System, the organisation needs to include the process as part of its corporate strategy and develop mature information capabilities. This is not an easy or quick task to complete, and

managers must be persistent and focused on improving their information capabilities and remain committed over time (Marchand and Hykes, 2007).

Marchand and Hykes (2007) offer the following key points to assist managers in developing a successful Strategic Intelligence process.

1. Information and Knowledge flows within the organisation should be formed as “visible” rather than invisible assets. Organisational guidelines and a common language should be developed to assist employees in collecting, maintaining, sharing, and utilising information. Employees should be informed of the criticality of information to the organisation’s long term performance.
2. The organisation should understand that technological components, such as intranets and Strategic Intelligence Systems are crucial components for effective information use, but will not solve the organisation’s problems alone. The organisation should invest in employee behaviour and processes, to allow for a information sharing culture.
3. The management of the organisation should understand the influence they have over the successful implementation of a knowledge-sharing culture on employees. If managers are seen not be sharing information, neither will the employees. Managers should examine their own behaviours and build formal monitoring and incentive schemes to reward employees to engage in effective information sharing and use.
4. The organisation should strive to utilise systematically the intelligence generated as a strategic competitive weapon to create business asymmetry. Asymmetry occurs when an organisation has capabilities that exceed their customer’s value and competitor offerings. Asymmetries could result from structural advantages such as scale, privileged relationships and extraordinary abilities in execution, as well as an insight or foresight into trends within their corporate environments.

By being able to gather and execute Strategic Intelligence better than their competition, Strategic Intelligence can be considered a source for business asymmetry and result in competitive advantage (Marchand and Hykes, 2007).

2.5 Conclusion

The Strategic Management process may remain similar in fashion for the foreseeable future, but it will need to adapt to the current realities of a fast moving business world. Gradual advances have come in the form of information gathering, intelligence creating systems and technologies such as Business Intelligence, Competitive Intelligence and Knowledge Management.

Each on their own provides an immense assistance to the organisation, by combining various sources of data and information from which to generate intelligence through a synthesis of specialist skills. The culmination of this process, through the combining of Business Intelligence, Competitive Intelligence and Knowledge Management, results in the formation of Strategic Intelligence which acts as a powerful input to Strategic Decision Making and the Strategic Management Process.

The use of valid and actionable Strategic Intelligence as a input to the Strategic Management process, can assist in identifying opportunities; by creating competitive advantage, acting as a early warning system, assist in market entry, new product development, pricing and key account management decisions; could add value to the organisations decision making capabilities leading to the achievement of the organisations long terms goals.

Chapter 3

The South African Long-term Insurance Industry

“defeat the enemies strategy” - The Art of War by Sun Tzu, 6th century BC.

3.1 Introduction

The modern business environment within the South African Long-term Insurance market has often been turbulent and volatile in the past, with South African organisations now required to engage international and local competitors and customers in a more regulated manner. Despite years of experience in the local environment even the most successful, and established organisations have committed strategic errors.

However, the industry has still made large gains in the past years, with a large insurance deficit still looming, allowing organisations the opportunity to further increase their market share.

This chapter starts with a brief introduction to Insurance; its definition, function, and use, an explanation of risk, and a classification between the different forms of insurance. It then includes a brief reference to the origins and development of life assurance, its definition, and then discusses the scope of life assurance and its products.

The chapter then focuses on the South African Long-term insurance industry, how it is managed, regulated, and governed. It identifies the sources of business, the policies and products offered, the competitive landscape and challenges facing the local South African market. In addition, this chapter examines the market share of the Long-term Insurance industry in South Africa, and provides an overview of the top six companies by market capitalisation listed on the Johannesburg Securities Exchange.

3.2 Insurance

Insurance is a social device which provides financial compensation for the effects of misfortune, whereby payments are made from the accumulated contributions of all members participating in a given scheme. Insurance is a form of a fund, into which all who are insured pay an assessed contribution called a premium. In return, for the individual's contribution in the form of a premium, those insured have the right to call on the fund for any appropriate payment should the insured event occur (Dorfman, 2005; Hansell, 1996; Vaughan and Vaughan, 2003; Nielson, 2006).

One function of insurance is to spread the financial losses of insured members over the whole of the insuring community, by compensating the unfortunate few from the fund which was created from the contributions of all participating members (Dorfman, 2005; Hansell, 1996; Nielson, 2006; Vaughan and Vaughan, 2003).

Insurance was created to combat the adverse effects of risk (Dorfman, 2005; Hansell, 1996). Insurance substitutes certainty for uncertainty with regard to the economic cost of loss producing events (Vaughan and Vaughan, 2003). Risk is seen as inseparable from life and as such nobody is exempt from it (Hansell, 1996). Various communities and individuals are exposed to greater dangers or risks than others due to their occupation, physical condition, geographic situation or any of countless other reasons (Hansell, 1996). The risks of fire, flood, theft, negligence of others and ourselves, and many other perils are constantly with us (Hansell, 1996).

Insurance is heavily dependent on combining a sufficiently large number of homogeneous exposure units, through which it is possible to predict the frequency of common events such as deaths and accidents. Losses can be predicted with reasonable accuracy, and this accuracy is seen to increase as the size of the group expands. This can be accomplished with the use of the theory of probability and the mathematical principle called the law of large numbers (Dorfman, 2005; Vaughan and Vaughan, 2003).

In terms of insurance, risk is generally used in a pessimistic sense, with a possibility of a loss or misfortune in mind (Hansell, 1996). Two classifications of risk can be identified, which may be insured, according to the nature and potential consequences of the hazard involved (Hansell, 1996). The following classifications are identified (Dorfman, 2005; Hansell, 1996; Nielson, 2006; Vaughan and Vaughan, 2003):

a) Pure and speculative risk:

- Pure risk offers no prospect of gain, only the possibility of loss, or at best the preservation of the status quo, is offered. Pure risk examples include fire, flood, accidents, death, and are subject to insurance.
- Speculative risk or entrepreneurial risk offer the possibility of a gain or a loss, but generally are not insurable. With this type of risk, provision for loss is usually

made through commercial transactions, such as the purchase of “futures”, or through specific management decisions, such as diversifying business activities.

b) Fundamental and particular risk:

- Fundamental risks tend to affect large sections of society, or even the world, rather than individuals. Fundamental risk includes a element of catastrophe, examples of which include war, famine, earthquakes, and pollution. Fundamental risks are often uninsurable commercially, and are considered problems of society as a whole, and are often dealt with by government or at an international level.
- Particular risks include consequences which are comparatively restricted. Most insurable risks are of this kind, and result in a loss for a relatively small number of individuals when they occur.

From the viewpoint of an insurer, it is theoretically possible to insure all possibilities of loss, although some are not insurable at a reasonable price. To be considered a proper item for insurance, an insurable risk should meet the following requirements (Dorfman, 2005; Hansell, 1996; Vaughan and Vaughan, 2003):

1. There must be a sufficiently large number of homogeneous exposure units to make the losses reasonably predictable. A large number of similar items exposed to similar perils enhance the operation of an insurance plan by allowing the accurate calculation of future losses.
2. The loss should not be catastrophic, with a low probability of affecting the insurance pool in its entirety.
3. The loss must be fortuitous or accidental.
4. The loss produced by the risk must be definite and measurable capable of causing economic hardship.

From the perspective of an insured person, the cost of the insurance must not be excessively high in relation to the possible loss and the insurance must be economically feasible. Excessive would be determined by the individual’s circumstances, and their stance toward risk, while at the

same time, the possible loss should be severe enough to result in major financial suffering, if not insured against (Dorfman, 2005; Vaughan and Vaughan, 2003).

Any risk that can be quantified can theoretically be insured; as such many different forms of insurance exist. The first distinction can be made between insurance purchased by individuals, known as personal lines coverage, and insurance purchased by businesses known as commercial coverage (Nielson, 2006). A second classification can be made between the types of companies that offer the insurance. Insurance companies can be classified into two groups (Dorfman, 2005; Hansell, 1996; Nielson, 2006; Vaughan and Vaughan, 2003):

- Life or long-term insurance companies which provide life assurance, annuities, pension policies, and health and disability policies which protect people.
- Non-life or short-term insurance companies, which provide property, casualty and liability insurance which protect things. Property insurance protects individuals against the loss and damage to items they have acquired, including houses and valuable items such as appliances and jewellery. Casualty insurance protects individuals against having their property taken to compensate others in settlements of legal disputes. Liability insurance protects individuals against the legal and financial responsibility they may have to another person, due to causing loss of harm to the other person. Some types of liability are covered under property and casualty policies. Common types of property and casualty insurance include homeowner, automobile, marine, fire, theft, credit, and commercial insurance.

In the majority of countries, life and non-life insurers are subject to diverse regulatory regimes and diverse tax and accounting regulations. The grounds for the distinction between the two types of organisations are that life related business is very long-term in nature, where coverage for life assurance can cover risks for many decades. In contrast, non-life insurance covers a shorter time period such as one year (Dorfman, 2005; Hansell, 1996; Vaughan and Vaughan, 2003).

The focus of this research is on Long-Term insurance companies, and the long-term nature of this business and its products. In many markets reference is made to the life insurance products, while in others life assurance is used. While there is no essential difference, the term insurance

tends to be used where a claim is potential, and assurance where a claim seems certain, as in the case of life assurance contracts (Hansell, 1996).

3.3 The Life Insurance Industry

3.3.1 Origins

Throughout history, prudent people have considered the task of providing for their dependants. The most basic form of life assurance included the burial benefits that Greek and Roman religious societies provided for their members. The burial benefit provided for the cost of the funeral, on a collective basis, where benefits were made by all the surviving members on a post-assessment basis. Due to the lack of actuarial methods, and contributions being requested after the death of a member, funds were not always accessible to pay claims (Nielson, 2006; Hansell, 1996).

Following this, the early development of life assurance was closely linked to marine insurance. The first life assurers were marine insurance underwriters, who supplied policies on the life of a merchant sailing with his goods (Hansell, 1996). During the sixteenth and seventeenth centuries the following types of life assurance were utilised (Hansell, 1996):

- a) Short-term assurances which existed for only short periods of time, covering risks during this time frame only. They were often used by merchants and others on voyages, or on the life of debtors as security against loans.
- b) Mutual assurance associations were societies that were in effect self-insurance clubs, whereby all participating members would contribute a fixed sum yearly, which was available for distribution to the dependants of numbers dying during the year. The amount payable on death varied according to the number of members, and the number of deaths during the time period.
- c) Annuities, which are a form of pension, provided an income to widows on the death of their husbands, for a fixed period or for life.

As demonstrated above, life assurance was written on very unscientific lines in its early years. With the advent of the first morality tables in 1693, based on actuarial statistics, and a more important one in 1755 compiled by Dodson, it was shown that it was possible to charge the

same premium per year throughout the life assurance contract, based on the assured's age. The morality tables, with the introduction of actuarial science, revolutionised the practice of life assurance, and led to the creation of mutual associations such as the Amicable Society which formed in 1705, and the Equitable Life Assurance Society in 1762, both in the United Kingdom (Hansell, 1996).

3.3.2 Life Assurance Defined

Life Assurance is a risk-pooling plan, which is designed as an economic device through which the individual's risk of premature death is transferred from the individual to the group. Individuals can equalise the burden of loss from death by distributing funds to the beneficiaries of those who die (Vaughan and Vaughan, 2003).

Life Assurance is provided with the means of a contract between a policy holder and the insurer, where the insurer agrees to reimburse a sum of money upon the incidence of the insured individual's death or other event, such as a terminal illness or critical illness. The policy holder, in return, agrees to pay a predetermined amount referred to as a premium at regular intervals, or in lump sums. The benefit would be compensated to an elected beneficiary (or beneficiaries) if the insured incident occurs and is covered by the policy (Vaughan and Vaughan, 2003).

While loss in insurance on property is potential, loss in life assurance is an eventual certainty, and is total. The aspect of uncertainty is at what point the death will occur. Morality can be seen as subject to the laws of probability, and as such premiums are calculated from morality tables, which identify the average number of individuals in each age and gender bracket that will die each year. An Actuary, who is an individual trained to make such calculations, determines the sum of premiums that are required to be collected yearly from each bracket to correspond to the benefits to be paid to policy holder's beneficiaries (Trupin, 2006; Vaughan and Vaughan, 2003).

3.3.3 The Scope of Life Assurance

Life Assurance provides compensation to specified individuals or groups, such as family members or charities, when a policyholder dies. Some policies may also provide funds for individuals to utilise during certain periods of their lives, when they are no longer able to earn income through work, for example due to old age or during the final stages of a terminal illness (Nielson, 2006).

A great variety of Life policies are offered by life assurers including Term life assurance, Whole life coverage, Endowment assurance, Accidental life assurance, and related products such as Pensions, Annuities, and Health and Disability insurance. These are considered within the following descriptions (Dorfman, 2005; Hansell, 1996; Trupin, 2006; Nielson, 2006; Vaughan and Vaughan, 2003):

- Term Life Assurance

These are the oldest forms of policy where payment is made by an assurer to beneficiaries, if the life assured dies within the specified period. Nothing is paid to beneficiaries if the policyholder does not die before the period is up. The policy does not accrue a cash value and buys security if the incidence of death occurs and nothing else. Factors to consider are the face amount (benefit), the premium to be paid, and the length of coverage. Term life assurance is suitable for businessman on journeys, or a cover to secure an outstanding debt such as a vehicle or mortgage loan.

- Permanent Life Assurance

Permanent life assurance will buy its face value whenever a policyholder dies, as long as they have complied with the policy requirements. Permanent life assurance stays in force until the policy matures, unless the holder neglects to pay the premium. The insurer is unable to cancel the policy unless there is fraud in the application. The policy accrues a cash value overtime which reduces the risk to the insurance company.

Three basic types of permanent life insurance are whole life, endowment policies, and accidental life assurance:

- Whole life coverage

These policies survive the whole of the policyholder's life, through the payment of regular, equal instalments and can cease at a specified age. The policy generates a cash value which can be accessed through loans, using the insurance as collateral. These loans can then be either repaid with interest or be deducted from their death benefit (face value at death). Cash values are not paid to beneficiaries upon the death of the insured instead the beneficiaries are reimbursed the death benefit only.

- Endowment assurance

One mutual feature of term and permanent life assurance is that the assured can never benefit from the proceeds of the policy. An endowment policy is similar to whole life but runs for less than the full life of the policyholder. The endowment policy pays out its face value (sum assured) at the contracts end, either at death or after a fixed number of years, whichever comes first, even if the insured is still living. In the event of a premature death, the beneficiaries are provided for; if the policyholder survives the term, the face value will be available to him to use as he wishes. Due to the shorter premium paying period, and the endowment date being earlier, endowments are more expensive than other policies.

- Accidental life assurance

Accidental death is a limited life insurance policy that is intended to cover the insured when they pass away as a result of an accident. Accidents consist of anything due to an injury but exclude death resulting from health problems or suicide.

- Related Assurance Products

- Pensions

Pensions are a type of life assurance. Instead of including mortality risk as normal life assurance has, pensions include longevity risk for insurers. A pension fund will be built up during the individuals working time. As soon as the individual retires, the pension will become payable by the insurer, and the pensioner will be required to purchase an annuity contract, to guarantee an assured pay-out every month until death.

- Annuities

Life assurance policies protect policyholders and their beneficiaries against the loss of income that can result if the insured person dies before retirement. Annuities differ in that they protect policyholders against outliving their financial resources, of which income is a large part.

Annuities are not, strictly speaking, contracts of life assurance. Annuities are rather a form of pension whereby, in return for a certain sum of money (contributed to in a lump sum or through instalments) the insurer agrees to pay the policyholder a monthly or annual amount for a specified time period or until death.

Various forms of annuities exist:

- *Annuities for Life* is a simple pension payable for life.
 - *Annuity Certain* means that the annuity is payable for a fixed number of years even if the policyholder dies before this period is over.
 - *Guaranteed Annuity* is payable for a fixed number of years or until death, whichever comes later.
 - *Reversionary Annuity* delays payments to the policyholder until the death of another specified person.
 - *Joint and Survivor* allows for two persons to be named as the policyholders, and on death of one of them the payments are continued to the other, usually, but not always, at a reduced rate.
- Health and Disability Insurance

Illness and disabilities lead to enormous medical care expenses, and can prevent individuals from earning an income.

Health insurance protects people against the costs and consequences of illness and injury.

Disability insurance is an income protector, which provides money for normal living expenses if an accident or illness prevents a policyholder from working.

All of the above policies are available on a group level where the assurance covers a collection of individuals, more often than not the employees of a company or members of a union or association. The benefit that Group Life assurance provides the individual is that individuals' proof of insurability will often not be a consideration in the underwriting, and is often paid by

the employer or group organisation (Dorfman, 2005; Hansell, 1996; Vaughan and Vaughan, 2003).

3.4 The South African Long-Term Insurance Industry

The primary purpose of long-term insurance can be identified as to provide financial protection to the owner of a long-term insurance policy from the identified events that may occur during a specified time period, in exchange for the payment of a premium (Trupin, 2006; Vaughan and Vaughan, 2003).

3.4.1 South African Legislation

The South African long-term insurance industry is a highly regulated industry due to the nature of its products. Long-term insurers are required to comply with a variety of different legislations, which is dependent on the nature of the business in which they take part, and the type of products sold by them (Office of the President, 1998; Van Niekerk, 1999).

The principle legislation that governs all South African organisations that take part in the long-term insurance industry is the Long-Term Insurance Act assented to by the acting president on the 15th September 1998.

The Long-Term Insurance Act's objective is to "provide for the registration of long-term insurers; for the control of certain activities of long-term insurers and intermediaries; and for matters connected therewith" (Office of the President, 1998; Van Niekerk, 1999).

The Long-Term Insurance Act also provides for the (Office of the President, 1998; Van Niekerk, 1999):

- registration of long-term insurers,
- format and content of returns to be submitted to the Registrar,
- the license and control of Lloyd's agents,
- financial arrangements including the methods of valuing assets and liabilities, and the admissibility of assets for solvency purposes,

- the business and administration of long-term insurers, including the appointment of a statutory actuary who is a resident of South Africa and a member of the Actuarial Society of South Africa,
- business practice, policies and policyholder protection.

Furthermore, long-term insurance organisations need to comply with the following acts:

- Companies Act, 1973, which identifies the statutory requirements relating to financial statements that need to be presented to stakeholders.
- Income Tax Act, 1962, which requires long-term insurers to establish certain funds, and to maintain these funds in accordance to the Act.

3.4.2 Regulatory Bodies

Within the South African Long-Term Insurance industry, several industry bodies exist:

- The Financial Services Board

The Long-Term Insurance Act identifies a Registrar of Long-Term Insurance and confers to it certain powers and duties. The wide-ranging authority is given to the Financial Services Board (FSB), which itself is regulated by the Financial Services Board Act of 1990 (The Financial Services Board South Africa, 2009).

Specifically, the Insurance Division of the FSB supervises the long-term and short-term insurance industries in terms of the Long-Term Insurance Act, 1998, and the Short-Term Insurance Act, 1998. Its task is to ensure that only insurers registered in terms of these Acts conduct business in South Africa (The Financial Services Board South Africa, 2009).

The insurance division of the FSB is broken down into three departments. The first focuses on policy and licensing requirements, the second on the financial soundness of insurance companies, and the third on compliance. The compliance department is responsible for dealing with unregistered insurance business, policyholder complaints, and other market conduct matters. The FSB works in conjunction with the Ombudsman for Long-Term Insurance and the Life Offices' Association of South Africa (LOA),

which has now merged to form the Association for Savings and Investment SA (ASISA) (The Financial Services Board South Africa, 2009).

- The Life Offices' Association of South Africa

The Life Offices' Association of South Africa was established in 1935 to fulfil the role of industry representative and self-regulatory body. The LOA's member offices include registered long-term insurance companies within South Africa which represent a large section of the financial services industry and a formidable part of the South African economy (Life Offices' Association of South Africa, 2009)

The LOA actively promotes the interests of the industry and the insured public based on three principles (Life Offices' Association of South Africa, 2009):

- Promoting a better understanding of long-term insurance among the people of South Africa.
- Representing the industry and its policyholders in negotiations with authorities, regulators and other stakeholders.
- Practising self-regulation of the industry to protect the image if the industry and control regulatory interaction that is not warranted.

The LOA also acts as a forum in which member offices can interact to promote their interests and those of current and future stakeholders (Life Offices' Association of South Africa, 2009).

The LOA, together with three other associations, disbanded towards the end of 2008 to form the Association for Savings and Investment South Africa (ASISA).

- Association for Savings and Investment South Africa (ASISA)

The Association for Savings and Investment South Africa was formed in 2008 by members of the Association of Collective Investments (ACI), the Investment Management Association of South Africa (IMASA), the Linked Investment Service Providers Association (LISPA) and the Life Offices' Association (LOA), who have individually disbanded (Association for Savings and Investment South Africa, 2009).

The motivation behind the creation of ASISA was to help facilitate an environment in South Africa that promotes a culture of savings and investment by uniting some of the key industries active in this space (Association for Savings and Investment South Africa, 2009).

The aim of this new single association is to (Association for Savings and Investment South Africa, 2009):

- Work towards greater level playing fields.
- Create an environment enabling of more holistic regulation.
- Become more consumer focused.
- Collectively engage with Government on policy issues.

ASISA represents the majority of South Africa's asset managers, collective investment scheme management companies, linked investment service providers, multi-managers, and life insurance companies. United by one representative body for the first time, the members of ASISA have mandated this new association to pro-actively engage with the policymaker and regulator, as well as intermediaries and consumers on regulatory and other important issues of common concern (Association for Savings and Investment South Africa, 2009).

As part of its mission ASISA aims to (Association for Savings and Investment South Africa, 2009):

- Actively promote a transformed, vibrant, and globally competitive financial sector that reflects the South African demographics.
- Develop and actively participate in education, transformation and social development projects.
- Continue to build a strong national economy by encouraging and incentivising South Africans to save.
- Promote transparency and disclosure.

- Endeavour to ensure ethical and equitable behaviour by members by applying a code of ethics and standards.
- Help create a simple and efficient regulatory framework that promotes savings and investment.
- Engage with Government to ensure the creation of level playing fields for all members while at the same time promoting healthy competition.

ASISA is an active participant in creating an environment that promotes equal opportunities for its members through holistic legislation, while at the same time looking after the interests of consumers and ensuring the sustainability of the industries they represent and the intermediaries who promote them (Association for Savings and Investment South Africa, 2009).

- Office of the Long-Term Insurance Ombudsman

The office of the Long-term Ombudsman was established as a voluntary scheme in 1985, with the function to receive and consider complaints against subscribing members by policyholders, and to resolve disputes primarily through mediation, failing which, determination. The office provides an out-of-court resolution of disputes - fairly, quickly and informally. It is an independent office accountable to the Long-term Ombudsman Council, which consists of representatives of consumer bodies and the industry including eminent outsiders. Over 98% of all the South African Long-term insurers subscribe to the Ombudsman's scheme. The office consists of an Ombudsman, who normally consists of a high-profile retired judge, a deputy Ombudsman, a number of adjudicators, assessors, an office manager and support staff (The Ombudsman for Long-Term Insurance, 2007; The Ombudsman for Long-Term Insurance, 2008).

The Ombudsman accepts complaints regarding (The Ombudsman for Long-Term Insurance, 2007; The Ombudsman for Long-Term Insurance, 2008):

- marketing;
- entering into of long-term insurance contracts; and
- their administration;

provided that contracts were marketed or effected in South Africa.

Most complained received include the following (The Ombudsman for Long-Term Insurance, 2007; The Ombudsman for Long-Term Insurance, 2008):

- communication and administration failures;
- mis-selling;
- lapsed policies; and
- alleged unfair rejection of claims.

The service of the office of the Ombudsman is free of charge to complainants. Complainants are not bound to the rulings, and are free to institute legal proceedings against the insurer concerned (The Ombudsman for Long-Term Insurance, 2007; The Ombudsman for Long-Term Insurance, 2008).

3.4.3 Source of Business

The long-term insurance industry in South Africa has two basic sources of business (The South African Institute of Chartered Accountants, 2007):

- The Direct Selling of products, in which the insurer is in direct contact with the policyholder as a result of advertising, direct mail, through its own branch network, or through the insurers own sales force.
- Through Insurance Intermediaries who advise and assist policyholders in arranging and purchasing insurance. Two categories of Long-Term insurance intermediaries exist. The first one is Independent Financial Advisors who are free agents or brokers selling many insurers products, and the second are appointed representatives who are agents tied to a certain insurer.

3.4.4 Long-term insurance policies

The classes of long-term insurance policies as defined by in the Long-Term Insurance Act of 1998, include a (Office of the President, 1998; Van Niekerk, 1999):

- Assistance policy, which is a life policy in respect of which the aggregate of:

- the value of the policy benefits, other than an annuity, to be provided (not taking into account any bonuses to be determined in the discretion of the long-term insurer); and
- the amount of the premium in return for which an annuity is to be provided, does not exceed R 10 000.00, or another maximum amount prescribed by the Minister;

and includes a reinsurance policy in respect of such a policy.

- Disability policy, which is a contract in terms of which a long-term insurer, in return for a premium, undertakes to provide policy benefits upon a disability event; and includes a reinsurance policy in respect of such a contract.
- Fund policy, which is a contract in terms of which a long-term insurer, in return for a premium, undertakes to provide policy benefits for the purpose of funding in whole or in part the liability of a fund to provide benefits to its members in terms of its rules, other than such a contract relating exclusively to a particular member of the fund or to the surviving spouse, children, dependants or nominees of a particular member of the fund; and includes a reinsurance policy in respect of such a contract.
- Health policy, which is a contract in terms of which a long-term insurer, in return for a premium, undertakes to provide policy benefits upon a health event, but excluding any contract:
 - of which the contemplated policy benefit:
 - is something other than a stated sum of money;
 - is to be provided upon a person having incurred, and to defray, expenditure in respect of any health service obtained as a result of the health event concerned; and
 - is to be provided to any provider of a health service in return for the provision of such service; or
 - of which the policyholder is a medical scheme registered under the Medical Schemes Act, 1998,

- which relates to a particular member of the scheme or to the beneficiaries of such member; and
- which is entered into by the scheme to fund in whole or in part its liability to such member or beneficiaries in terms of its rules.

A health event means an event relating to the health of the mind or body of a person or an unborn.

- Life policy, is a contract in terms of which a person, in return for a premium, undertakes to:
 - provide policy benefits upon, and exclusively as a result of, a life event;
 - pay an annuity for a period;

and includes a reinsurance policy in respect of such a contract.

A life event means the event of the life of a person or an unborn having begun, continuing, having continued for a period or having ended.

- Sinking fund policy, is a contract, other than a life policy, in terms of which a long-term insurer, in return for a premium, undertakes to provide one or more sums of money, on a fixed or determinable future date, as policy benefits; and includes a reinsurance policy in respect of such a contract.

3.4.5 Reinsurance

Long-term insurers are able to transfer or cede a part of the risk they have assured to another registered insurer who is referred to as a reinsurer. The reinsurer is then able to transfer part of their risk to another registered insurer. The reinsurance policy does not reduce the obligations of the primary insurer to its policyholder as it is a separate policy (The South African Institute of Chartered Accountants, 2007).

The purpose of reinsurance is to manage and spread the risk of the insurer across a larger base. This is done to; protect the insurers capital base from a catastrophe, or prevent a over-concentration of morality or morbidity risk; to reduce the potential risk; to reduce the potential risk of loss on a single policy; and to ensure an increase in the volume of business written,

without needing to increase the insurers capital base (The South African Institute of Chartered Accountants, 2007).

3.4.6 Competitive Landscape

Life Assurance policies are purchased by individuals only a few times in their lifetimes with the decision-making process focused on cost and price sensitivity. The market consists of many individual consumers which diminishes buying power, with the loss of a customer having a marginal impact. Switching between companies is relatively simple, consumers are not loyal, shopping around for the best price, and rates provided by different companies. It is therefore critical for Life Assurance companies to market themselves to new customers, and to retain the current customers. With the advent of the internet, online aggregator sites have become common which allow customers to compare and contrast policies, while insurance brokers and consultants within the insurance market shop around for the best prices for their customers (Datamonitor, 2007).

The market consists of low entry barriers which encourage new entrants, especially the simplicity in gaining access to distribution channels such as bancassurance, independent agents, or the internet which is vital to success. Entry into the market could include the creation of a new company, or the geographic expansion by a company established in another market or country. Government regulation is stringent, with the FSB responsible for the registration and overseeing of the market (Datamonitor, 2007).

The market further consists on high exit barriers and fragmentation which is the cause of high rivalry. Leading incumbents have created strong brands, or rather created powerful reputations, with consumer recognition ranking high. While the market is fragmented, several smaller players compete with the larger ones, offering similar but diversified services including non-life lines, which have eased the rivalry to an extent (Datamonitor, 2007).

Exit barriers remain high, with the regulatory system imposing measures such as capital adequacy which is designed to prevent insurers going out of business, and changing business models. Management of these companies have non-transferable skills, and with high exit barriers prefer to resist poor market conditions, rather than exit (Datamonitor, 2007).

Substitute products within the Life environment include financial products such as savings and investments consisting of deposits, mutual funds, and direct investments in equities and bonds. Another tool for protecting against risk and protecting ones family includes a Will. Overall these substitutes, while offering cheaper alternatives, remain weak as they do not offer the same protection as life assurance (Datamonitor, 2007).

Price sensitivity drives the life market from a consumer perspective and as such cost efficiencies are a vital focus point. Supplier power in this market is strong due to the high switching costs involved. Key suppliers include Information Technology companies who supply specialised secure and reliable computer systems to life companies, who are often reliant on the Information Technology Company due to the potential costs of retraining staff on new systems (Datamonitor, 2007).

Life assurers also require the services of reinsurance companies to reduce their exposure to insured risks. It is also critical that life companies retain suitably qualified employees, with actuarial, investment, and similar skills (Datamonitor, 2007)

3.4.7 Challenges facing the market

The Long-term insurance industry is facing many challenges and changes at the moment. The challenges include (The Financial Services Board South Africa, 2007; The Financial Services Board South Africa, 2008):

External

- Increased lapses and surrenders owing to economic conditions.
- Increased competition from savings products in other sectors.
- Inflation and interest rates.
- Rebuilding public confidence.
- Consumerism.

Internal

- The need to update information and administrative systems.

- Technology.
- Attracting and retaining skilled staff.

Regulatory

- Adequate compliance with general regulatory requirements.
- Matters arising from the Panel of Enquiry into the conduct of credit insurance business.
- Dealing with issues emanating from the determinations made by the Pension Fund Adjudicator.
- Developments with respect to International Financial Reporting Standards (IFRS).
- Adequate asset liability matching of long-dated annuity contracts and investment guarantees, due to the limited supply of suitably long-dated fixed income assets.

Transformation

- Financial Sector Charter dealing with broad-based black economic empowerment targets.
- Addressing the needs of the low-income market by introducing appropriate products.

Furthermore a survey by PricewaterhouseCoopers in 2006 identified the following top 14 pressing issues that long-term companies face (Metcalf, 2006):

- Retaining existing customers.
- Profit performance (margins).
- Recruiting/training distribution channels.
- Improving premium growth.
- Building a customer base.
- Recruiting/training competent staff.
- Managing customer expectations.

- BEE/Financial Sector Charter.
- Increasing legislative demands.
- Brand awareness.
- Cost reduction.
- Transparency of fees and commission.
- Deregulation of commission.

Important regulatory developments within the long-term industry include retirement reform, the Statement of Intent, Commission structures, the financial services charter, and the creation of Zimele products. These are discussed briefly below (Association for Savings and Investment South Africa, 2009; Life Offices' Association of South Africa, 2007; The Financial Services Board South Africa, 2007; The Financial Services Board South Africa, 2008):

- Retirement Reform - The national treasury and various government departments have proposed the creation of a new social security scheme incorporating all South Africans over the age of 65. The national scheme will require all workers to pay mandatory contributions of 15% of any income, with those earning more than R60,000.00 needing to make further mandatory contributions to private funds. The key aim is to extend coverage and provide basic retirement, unemployment, death and disability benefits.
- The Statement of Intent is an agreement signed between the Minister of Finance and the LOA in December 2005, to address ways to enhance values and benefits of certain existing and new savings policies, especially for those who can no longer afford the premiums.
- Commission structures reform included the moving away from traditional upfront commission structures to an ongoing payment model, and a reform of early termination values.
- The Financial Sector Charter was signed by representatives of the financial services sector and the Minister of Finance in October 2003. The Charter focuses on access to

financial services for low income earners, as well as on human resources development, enterprise development, empowerment financing, and ownership and control.

- Zimele Products were created through the formation of the Financial Sector Charter, with the LOA introducing the Zimele product standards in February 2007. The first products under this brand include funeral products for South Africans earning less than R3000.00 a month, with future products approved by the Financial Sector Charter Council in February 2008, including credit life cover, mortgage protection, life cover and disability cover.

Zimele as a brand represents life insurance products that are accessible, appropriate, simple, affordable, and offer excellent value for money.

At the end of December 2008, there were 1.7-million Zimele approved policies in force which means that the life industry has already reached its target of selling 1.7-million policies by 2014.

A media release by the Life Offices' Association (Life Offices' Association of South Africa, 2008) in February 2008 revealed that South Africa has an insurance gap of more than R10-trillion, by means of life and disability insurance. This would mean that if a main earner of a household dies or becomes disabled, the average family would need to cut expenses by more than half, often resulting in homes and tertiary educations being lost. With consumer education this could be turned around benefiting the long-term industry (Life Offices' Association of South Africa, 2008).

The LOA reported on the 10th April 2008, that for the first time in the history of the South African long-term industry, has individual policyholders paid more than R100-billion in premiums for life and disability insurance and savings products in 2007. The industry as a whole recorded a solid growth rate of 12% for 2007, with total premium and investment income increasing to R226-billion, and a 14% growth in attracting new individual premiums with a total of R57,2-billion in 2007 (Life Offices' Association of South Africa, 2008).

ASISA, following the dissolution of the LOA, reported on the 31st March 2009, that despite the tough economic conditions impacting on the majority of consumers during 2008, the life industry recorded a solid growth rate of 11% for 2008, with total premium and investment

income increasing to R252-billion from R226-billion in 2007. The life industry managed to attract new individual recurring and single premiums of R65-billion during 2008, an increase of 14% over the R57-billion attracted in 2007. New recurring premiums for 2008 amounted to R12.9-billion, an increase of 12% from 2007. Single premiums came to R52.6-billion, an increase of 15% from 2007 (Association for Savings and Investment South Africa, 2009).

The growth was experienced by all insurers, and with the findings of the independent study commissioned by the LOA into the shortfall for South African Households (discussed above), there remains room for significant growth in premium income (Life Offices' Association of South Africa, 2008).

3.4.8 Market Share

Regulation requires every insurer or reinsurer to be registered by the FSB for a specific class or classes of business, namely assistance, disability, fund, health, Life, and/or sinking fund (The Financial Services Board South Africa, 2008). As at 31 March 2008 the number of long-term insurers registered were as follows:

Table 4 - Registered Long-Term Insurers

Type of Insurer	2008
Insurers	
Typical Insurers	46
Health Insurers	2
Cell Captive Insurers	7
Assistance Insurers	6
Reinsurers	
Long-term only	3
Long- and short-term (composite)	4
Total	82

Source: The Financial Services Board South Africa (2008)

The industry can further be categorised by identifying companies that are listed on the Johannesburg Securities Exchange and those that are not. For the purpose of this research our

research sample will include both the listed and unlisted companies. An overview of the listed companies, namely Old Mutual Plc, Liberty Group Ltd, Sanlam Ltd, Discovery Holdings Ltd, Clientele Life Ltd, and Metropolitan Holding Ltd, is given below while the entire listing of Long-term Insurers as at 10th June 2009 can be found in Appendix B. The various companies' market capitalisation is shown below (Sharedata, 2009):

Table 5 - Market Capitalisation

Name	Market Capitalisation (05 January 2010):
Old Mutual PLC	R 72, 730 m
Sanlam Ltd	R 49, 313 m
Liberty Group Ltd	R 19, 658 m
Discovery Holdings Ltd	R 18, 978 m
Metropolitan Holdings Ltd	R 7, 422 m
Clientèle Ltd	R 2, 442 m

Source: Sharedata (2010)

A brief overview of each of the listed companies is given below:

Old Mutual Plc:

Old Mutual is South Africa's largest financial services company, and provides a wide range of life assurance, asset management, banking and general insurance solutions in over 40 countries, primarily South Africa, Europe and the United States. Old Mutual has a history of over 150 years as a mutual society in South Africa, which was established by 166 members in 1845 as Mutual Life Association of Cape of Good Hope, with nothing more than their premiums. In 1999, Old Mutual demutualised and listed on the Johannesburg Securities Exchange, among others (Old Mutual Plc, 2009).

Old Mutual provides services from financial planning to the managing of individual's financial portfolio's, enabling investors to manage their wealth with the flexibility of a multitude of investment options. Old Mutual's focus is to become the preferred financial services provider to every economically active home and business (Old Mutual Plc, 2009).

Old Mutual's products have been designed for individuals, small businesses and corporate organisations (Old Mutual Plc, 2009).

The company's core business includes (Old Mutual Plc, 2009):

- Life Assurance
- Asset Management
- Investments
- Corporate Solutions
- Healthcare
- Savings
- Banking
- General Insurance

Old Mutual has the largest distribution capability in the South African industry, using a combination of tied agents, independent financial advisers, bank distribution, corporate advisers and direct distribution to ensure that their business appears in front of a full spectrum of potential clients (Old Mutual Plc, 2009).

Sanlam Ltd:

Sanlam was established in 1918, with the Group demutualising in 1998 listing on the JSE Limited in Johannesburg and the Namibian Stock Exchange (Sanlam Ltd, 2009).

The Sanlam Group conducts its business through Sanlam Limited, the corporate head office and retail, institutional, short-term insurance business clusters (Sanlam Ltd, 2009).

Corporate head office is responsible for the Group's centralised functions, which include strategic direction, financial and risk management, group marketing and communications, group human resources and information technology, corporate social investment and general group services (Sanlam Ltd, 2009).

The Retail cluster includes Sanlam Personal Finance and Sanlam Developing Markets (Sanlam Ltd, 2009):

- Sanlam Personal Finance, provides individual life insurance and personal financial services and solutions, including estate planning and trusts, home loans, personal loans, linked products, money transfer and financial services in South Africa, Namibia and the UK.
- Sanlam Developing Markets, provides affordable financial services solutions primarily to the entry-level market in South Africa and to the wider financial services segments in other developing markets in which Sanlam operates (five other African countries as well as India).

The Institutional cluster includes Sanlam Investments, Sanlam Capital Markets and Sanlam Employee Benefits (Sanlam Ltd, 2009):

- Sanlam Investments, incorporates Sanlam's investment-related businesses in South Africa, USA, Europe and Rest of Africa. Sanlam Investments' areas of service and solutions include traditional asset management, alternative investment solutions, property asset management, collective investments (unit trusts), private client investment management and stockbroking, multi-manager management and investment administration.
- Sanlam Capital Markets, provides risk management and structured product solutions to the South African savings industry, public sector enterprises and corporate organisations, engages in associated capital market activities, including propriety risk-taking.
- Sanlam Employee Benefits, provides life insurance, investment and annuity solutions for group schemes and retirement funds and fund administration for retirement and umbrella funds.

The Short-term Insurance cluster is comprised of a 56,5% shareholding in Santam, the leading short-term insurer in South Africa (Sanlam Ltd, 2009).

- Santam focuses on the corporate, commercial and personal markets. It has market share in excess of 20%, total assets of more than R16 billion and a countrywide infrastructure and broker network. Santam has related business interests in Africa and Europe.

Furthermore, Sanlam Independent Financial Services invests in independent customer-facing entities and intermediary businesses in the financial services industry that are generally not Sanlam branded. The Group as a whole, employs about 9 500 office staff and about 1 400 advisers (Sanlam Ltd, 2009).

Liberty Group Ltd:

Liberty Life is the third largest life office in South Africa. Liberty Group was established in 1957, and listed on the Johannesburg Securities Exchange in 1962. Liberty Life is a member of the Standard Bank group (Liberty Group Ltd, 2009).

Liberty Group Ltd offers a comprehensive range of long-term insurance products and services to both the individual and corporate markets. Their aim is to provide superior investment performance in relation to a client's risk tolerance and as such all major asset classes are managed to achieve this result. Liberty aims to be the preferred supplier of quality, value-added financial and associated services, both locally and internationally (Liberty Group Ltd, 2009).

The Group consists of two divisions; Life and Pensions, and Asset Management (Liberty Group Ltd, 2009):

- Life and Pensions, which provides products and services aimed at accumulating individual wealth, and wealth protection. Products include life, disability insurance, retirement savings, retirement fund administration, investment advice and healthcare related products.
- Asset Management:
 - STANLIB, is a South African investment house which, through its suite of focused franchise investment teams, offers a wide range of tailored investment products and advice. Most of Liberty Life's policy-backed assets are managed by STANLIB, offering a local and international investment product mix that covers all major asset classes. STANLIB was established in 2002 through the

combination of the asset management, wealth management, and wealth product marketing divisions of the Standard Bank and Liberty Life groups. Liberty Life has recently acquired 100% of STANLIB.

- Liberty Properties, administrators, manages and markets the group's directly held property portfolios of commercial, retail and hotel properties in South Africa and offers property development expertise.

Aiming to live up to its advertising strap-line “The way life should be”, Liberty Life distributes tailored risk, investment, retirement and health products through its network of licensed financial advisers (Liberty Group Ltd, 2009).

Discovery Holdings Ltd:

The Discovery Group was founded in 1992, and listed on the Johannesburg Securities Exchange in 1999, on the principles of consumer engagement and wellness, allowing Discovery to individualise its approach which is highly differentiated and involves integrating their entire product range with its trendsetting wellness programme, Vitality (Discovery Holdings Ltd, 2009).

The integration of its range with Vitality has enabled Discovery to improve its competitive position by offering unique products with better benefits and at a lower price than its competitors. Discovery identifies itself as a market innovator and only enters markets where they recognise the need for structural change, and where they believe they can make a difference (Discovery Holdings Ltd, 2009).

In South Africa, Discovery operates in the health insurance market through Discovery Health, the life assurance market through Discovery Life, the financial services market through Discovery Invest and DiscoveryCard and in the wellness arena through Discovery Vitality. All operating subsidiaries are 100% held (Discovery Holdings Ltd, 2009):

- Discovery Health, is South Africa’s largest healthcare funder and medical scheme manager, and covers over two million lives and manages 12 medical schemes. The Discovery Health Medical Scheme, is the country’s largest open medical scheme and is the only one to enjoy an AA rating, the highest possible credit rating from international rating agency, Global Credit Ratings, and recognises its responsibility to build a private healthcare system that will last into the future and provide high-quality care at affordable

rates to its client base. Discovery Health pioneered consumer-driven healthcare in South Africa with innovations like the Medical Savings Account and the wellness programme, Vitality.

- Discovery Life is South Africa's fastest growing major life insurer, having captured around 40% of the new business in the independent broker risk market since its start in 2000. It was the first South African insurer to separate risk from investment, leading a change in the environment that is projected to save consumers more than R5 billion by 2010. Discovery Life covered over 460 000 lives at 31 December 2007, employs some 1 100 people.
- Discovery Invest, its product range for the long-term savings and investment market. To meet investors' investment goals and objectives, the company introduced a full suite of products and investment vehicles and a comprehensive range of fund choices.
- Discovery Vitality is a science-based wellness programme that joins each of the Discovery businesses and is an international brand in its own right, with over 1.5 million people currently belonging to Vitality. Vitality rewards members for improving their health by giving them access to a range of health and lifestyle benefits. Its value offering is further improved by the DiscoveryCard that gives members real cash back if they shop at one of the retail partner stores.

In the United Kingdom, PruProtection, Discovery's joint venture with Prudential Plc, offers consumer-engaged health and life insurance products through PruHealth and PruProtect. PruProtection has successfully leveraged Discovery's Vitality-integrated approach in both markets (Discovery Holdings Ltd, 2009).

In the United States, Discovery has launched a stand-alone version of its leading wellness programme, Vitality, which is being sold to self-insured, large employer groups and to healthcare carriers. Through this model, Discovery is able to capitalise on the emerging trend towards wellness in the US, without being exposed to the associated healthcare risks (Discovery Holdings Ltd, 2009).

Metropolitan Holdings Ltd:

Metropolitan can date its origins back to the 1800's when it was known as the "African Homes Trust Ltd", which assisted in the construction of homes. Over the past 109 years the company has transformed itself into an African-based business providing individuals with customised financial service packages that protect and enhance their assets (Metropolitan Holding Ltd, 2009).

Metropolitan provides need specific financial services in the lower to medium income bracket with the majority of its existing policyholders, over 80%, being African while it does accommodate all individuals with financial aspirations. It is the largest financial services group to target this market (Metropolitan Holding Ltd, 2009).

The Metropolitan group comprises six independent operating businesses, each with clearly defined areas of focus, performance and profit objectives: retail, corporate, asset management, international, health and card operations (Metropolitan Holding Ltd, 2009).

The products offered by Metropolitan range from assurance of individuals, retirement annuities, medical aid products, unit trusts, and investment products, credit life benefits and employee benefit packages for both large and small companies. The company markets its products through a broker network of over 1500 brokers, and has 72 offices South Africa, Namibia, Botswana, Kenya, Ghana, Nigeria and Lesotho (Metropolitan Holding Ltd, 2009).

Clientèle Life:

Clientèle Life listed on the JSE Securities Exchange in September 1997, and forms part of the greater Hollard Insurance Group. Clientèle Life strategy is to cater for the needs of a broad cross-section of South Africans, providing convenient and professional financial protection through a competitive, service-orientated strategy (Clientèle Life Ltd, 2009).

Clientèle Life created a bouquet of low cost insurance products designed to cater for the essential needs of the market (Clientèle Life Ltd, 2009). Key products include (Clientèle Life Ltd, 2009):

- Lasting Dignity Plan is the company's flagship product which provides expenses and funeral cover.

- Classic Saver Endowment Plan is a unit-linked product designed to provide long-term savings and includes and accidental death cover.
- Immediate Medical Response covers medical emergencies with Medical Rescue International.
- Income Replacement Plan provides replacement income to a policyholder when he is prevented from earning income for a period of time due to an accident.
- Hospital Cash Plan provides a daily cash benefit in case of hospitalisation.

Clientèle Life markets its products through the use of television advertising, telesales, Independent Field Advertisers and other direct marketing methods and has proved itself to be an extremely successful distributor in the specialist market niche of low advice insurance products (Clientèle Life Ltd, 2009).

Clientèle Life's success can be attributed to the streamlined process on which it runs its Information Technology systems, and has differentiated itself from traditional insurance companies by maximising the use of technological advances such as the telephone, the television and the computer. This has enabled the company to distribute and provide its service across the entire country from a single unique location in Johannesburg, which is further supported by an efficient premium collection and policy administration service which reduces costs (Clientèle Life Ltd, 2009).

3.5 Conclusion

Worldwide, the Long-term insurance industry has undergone many changes in its working model, with changes focused on increasing the attractiveness of the industry to consumers. With the advent of technological advances that allow all consumers to shop around for the best products and pricing, and the globalisation of markets allowing organisations to compete globally, organisations are required to stay a step ahead of their competitors.

To achieve this, Long-term insurance organisations are facing many challenges, and a number of strategic decisions will need to be made for them to remain stable for the infinite future. New products, allowing consumers a greater understanding, flexibility and visibility will be required to attract new clients as well as increase market share and remain competitive.

However, by utilising Strategic Intelligence during the Strategic Management process, which could identify opportunities, and challenges faced, allowing better informed, effective decisions to be made that will assist organisations in gaining greater market share and to compete successfully against local and international competitors.

Chapter 4

Research Methodology

Making your mark on the world is hard. If it were easy, everybody would do it. But it's not. It takes patience, it takes commitment, and it comes with plenty of failure along the way. The real test is not whether you avoid this failure, because you won't. It's whether you let it harden or shame you into inaction, or whether you learn from it; whether you choose to persevere. - Barack Obama.

4.1 Introduction

With the completion of the relevant literature review, and review of the Long-term insurance industry it is important to describe the methodology of the research. This chapter will review the concept “research”, delineate how it is undertaken, and identify the purpose of the research.

Furthermore, the population and sample of the study will be defined in detail, followed by the research design, method and a discussion of the instrument designed specifically for this research.

Following this, the data collection and analysis process will be discussed and explained in detail, with a further discussion on the reliability and validity of the data collected and ethics utilised in the study.

4.2 Defining Research

Research can be defined as a “*systematic process of collecting, analysing, and interpreting information (data) in order to increase our understanding on the phenomenon about which we are interested or concerned*” (Leedy and Omrod, 2005:2). Research can simply be identified as an enquiry or search for knowledge, or a systematic investigation to establish facts (Pellissier, 2007a). Furthermore, research can be seen as “*an active, diligent and systematic process of enquiry in order to discover, interpret or revise facts, events, behaviours, theories or applications, with the help of such facts, laws or theories*” (Pellissier, 2007a:6).

Research, which has been defined above, has a number of characteristics (Saunders *et al.*, 2007):

- Data are collected systematically.
- Data are interpreted systematically.
- There is a clear purpose: to find things out.

Research is undertaken to increase knowledge, and is based on logical relationships and not just one's beliefs. Research involves methods and designs to collect data; arguments as to why the

results obtained are correct and meaningful, and an explanation of the limitations associated with the research (Saunders *et al.*, 2007).

Research identifies the need to find things out, such as the answers to a number of questions, which suggests a number of purposes for the research (Saunders *et al.*, 2007). Research can then be classified as a (Saunders *et al.*, 2007):

- Exploratory study, which is a valuable means of finding out what is currently happening, to seek new insights, to ask questions, and assess phenomena, with a new outlook. Exploratory studies are extremely useful when the requirement of the study is to clarify the understanding of a problem. Exploratory research can be conducted through: a search of literature; interviewing experts on the subject; and conducting focus group interviews.
- Descriptive study, with the object of portraying an accurate profile of individuals, events, or situations and can form an extension, or forerunner to exploratory or explanatory research. It is important to have a clear understanding of the phenomena on which data are to be collected before the commencement of the study.
- Explanatory study, which has the goal of establishing causal relationships between variables, with emphasis on studying a situation or problem in order to explain the relationships.

Research can further be differentiated according to the research strategy that is chosen. A research strategy is a general plan on how the researcher will answer the research questions (Saunders *et al.*, 2007). Research strategies can be differentiated depending on the specific outcome required (Pellissier, 2007a):

- Pure research leads to theoretical development, whether the research has practical implications or not.
- Applied research which is intended to solve a specific problem, of which the common goal is the evaluation of a particular course of action.
- Action research with the main focus being to lead the change.

Research strategies can further range from a purely quantitative approach potentially incorporating aspects from both (Pellissier, 2007a):

- Quantitative research is carried out to investigate. It deals with hard data and facts, and focuses on “*what is now*”. Quantitative research utilises measurement and numbers, and is carried out within a framework of scientific method, which uses objectively agreed criteria and procedures to achieve results that have statistical reliability.
- Qualitative research focuses on soft data, which is collected through probing and understanding of respondents’ attitudes, motivations and behaviour. Qualitative research aims to go deeper beyond historical facts and surface comments, to get to the root underlying causes of behaviour. Qualitative research focuses on words and pictures, and is seen as a craft. The quality of findings is highly dependent on the researcher’s skills and his interpretation and objectivity.

As a large number of research strategies exist, the research strategies should be selected depending upon (Pellissier, 2007a):

- the type, nature and extent of the question or problem;
- the nature and availability of data, and control over actual events by the researcher;
- the focus on contemporary as opposed to historical phenomena.

4.3 Purpose of the Research

The primary aim of this research study is to explore the extent to which Strategic Intelligence is currently utilised within the South African Long-term insurance industry and how it can be used to identify opportunities or threats within the global environment to remain competitive, create greater innovation, and corporate advantage.

The following primary research questions can thus be generated from the above aim:

- What is the extent to which Strategic Intelligence is utilised within the South African Long-term insurance industry?
- How does Strategic Intelligence form a vital component of Strategic Management?

- What value does Strategic Intelligence add to the Strategic Management Process within the South African Long-term insurance industry?

Based on the primary research questions listed above, the below secondary research questions are generated:

- How do South African Long-term insurance organisations currently collect and create Strategic Intelligence?
- What information systems are currently utilised by South African Long-term insurance organisations to create Strategic Intelligence?
- How Strategic Decisions are made in South African Long-term insurance organisations and on what intelligence are these decisions based?
- How South African Long-term insurance organisations can best implement Strategic Intelligence?

Based on the above research questions the following objectives have been identified:

Primary Objectives:

- To identify the level of utilisation of Strategic Intelligence within the South African Long-term insurance industry.
- To determine how Strategic Intelligence is used and contributes to the Strategic Management Process within the South African Long-term insurance industry.
- To establish how Strategic Intelligence adds value to organisations within the South African Long-term insurance industry.

Secondary Objectives:

- To establish how Data and Information are collected and transformed into Strategic Intelligence within the South African Long-term insurance industry.
- To establish the use of information systems to create Strategic Intelligence within the South African Long-term insurance industry.

- To establish to what extent Strategic Intelligence can address the input needs of the Strategic Decision Making Process within the South African Long-term insurance industry.
- To compare the findings obtained from the sample to determine how Strategic Intelligence is implemented within South African business organisations.

4.4 Population and Sample

The aim of this study is to identify the extent to which Strategic Intelligence can be utilised within the Long-term insurance industry to identify opportunities or threats within the global environment to allow all the organisations to remain competitive, create greater innovation, and corporate advantage to allow them to compete in the global economy.

Saunders *et al.* (2007:606) define a population as “*the complete set of cases or group members*” upon which a research study will be based. The South African business environment comprises many industries and for the purpose of this study the Long-Term Insurance Industry was selected as the population. The population was selected as a representative of the greater South African business environment as the organisations involved are vulnerable to changes within the macro- and micro- environment and are undergoing intense changes within their market and regulatory environment.

However, it is not always possible to collect data from an entire population, requiring the researcher to select a manageable sample from the greater population. Saunders *et al.* (2007:610) define a sample as a “*Subgroup or part of a larger population*”. Sampling allows a researcher to make generalisations of the entire population, but only if the sample is representative of the greater population (Leedy and Omrod, 2005).

Different sampling designs can be used depending on the situation. There are a number of approaches to sampling, which can fall into two broad categories being probability sampling and non-probability sampling (Saunders *et al.*, 2007):

- Probability sampling consists of a selection of sampling techniques in which the chance, or probability, of each case being selected from the population is known and is not zero (Saunders *et al.*, 2007). Probability sampling consists of the following techniques (Leedy and Omrod, 2005; Saunders *et al.*, 2007):

- Simple Random sampling is the least sophisticated of all sampling techniques and ensures that each case in the population has an equal chance of being selected for inclusion in the sample.
- Systematic sampling involves the selecting of cases according to a predetermined sequence which originates by chance. This means that the initial sampling point is selected at random, and the cases selected at regular intervals.
- Stratified Random sampling utilises a sampling procedure in which the population is divided into two or more relevant strata and a random sample (systematic or simple) is drawn from each of the strata.
- Cluster sampling makes use of a sampling procedure in which the population is divided into discrete groups or clusters prior to sampling. Random samples (systematic or simple) are then drawn from these groups or clusters.
- Multi-stage sampling is a sampling technique that is a development of cluster sampling, involving a series of cluster samples, each of which makes use of random sampling (systematic or simple).
- Non-Probability sampling consists of a selection of sampling techniques in which the chance or probability of each case being selected is not known (Saunders *et al.*, 2007). Non-Probability sampling includes the following techniques (Leedy and Omrod, 2005; Saunders *et al.*, 2007):
 - Quota Sampling is a sampling procedure that ensures that the sample selected represents certain characteristics of the population chosen by the researcher. It enables the selection of respondents in the same proportions that they are found in the general population.
 - Purposive Sampling, allows the researcher to select people or other units, for a particular purpose. The judgement of the researcher is used to select the cases that make up the sample, and can be done on the basis of extreme cases, heterogeneity, homogeneity, critical cases, or typical cases.

- Snowball Sampling is a procedure in which subsequent respondents are obtained from information provided by the initial respondents.
- Self-Selection Sampling provides an environment in which the case, usually an individual, is allowed to identify their desire to be part of the sample.
- Convenience Sampling makes no pretence of identifying a representative subset of a population. Cases are selected haphazardly on the basis that they were the easiest to obtain.

For the purpose of this study the purposive sampling technique is used to select the best cases that would enable the research questions to be answered and result in the research objectives being met (Saunders *et al.*, 2007). Saunders *et al.* (2007:232) identify research that will focus on a particular subgroup in which all sample members are similar, as homogeneous sampling, which will enable the researcher to study the group in depth. As a homogeneous group, the Long-Term Insurance Industry was selected as the sample and the individual organisations approached were identified from the list of valid licenses registered with the Financial Services Board. Based on the organisations provided by the Financial Services Board, there are 82 Long-Term Insurance companies in South Africa, of which six organisations are listed on the Johannesburg Securities Exchange within the Life Assurance Sector. The listed companies include:

- Old Mutual Plc,
- Liberty Group Ltd,
- Sanlam Ltd,
- Discovery Holdings Ltd,
- Clientele Life Ltd,
- Metropolitan Holding Ltd.

For the purpose of this research the focus remained on the six listed companies due to their size and turnover, agility, and the fact that they are information-based. The researcher's belief is that they would be at the forefront of Strategic Intelligence research and use; however, all 82 companies were approached to participate in the survey, which provided an in-depth

examination of the use of Strategic Intelligence within the Long-Term Insurance Industry. The full list of companies selected is provided in Appendix B.

4.5 Research Method

The research method identified and selected as the most appropriate for this study was the survey method. The survey methodology is most often utilised when the form of the research question includes who, what, where, how many and how much; requires no control over behavioural events and focuses on contemporary events (Pellissier, 2007a). Leedy and Omrod (2005:183) believe survey research *“involves acquiring information about one or more groups of people – perhaps about the characteristics, opinions, attitudes, or previous experiences – by asking them questions and tabulating their answers”*. Leedy and Omrod (2005:181) believe that survey research falls under descriptive quantitative research as it involves either identifying the characteristics of an observed phenomenon or explores the possible correlation among two or more variables, in a situation as is.

Surveys are seen as a popular choice in business research as they allow the collection of a large amount of data from a sizable population in a highly economical way (Saunders *et al.*, 2007). The survey methodology is simple in design: The researcher poses a selection of questions to willing participants, summarises their responses with percentages, frequency counts, or other statistical indexes; and then draws inferences about a particular population from the responses of the sample (Leedy and Omrod, 2005). With the use of sampling, it is possible to generate findings that are representative of the entire population at a lower cost than collecting the data for the whole population (Saunders *et al.*, 2007).

A survey was conducted with the use of a questionnaire specially developed for the purpose of this study. The survey allowed for both a comparative assessment of the findings of this research between the sample organisations, as well as a content analysis of findings obtained through the qualitative views and opinions of the respondents.

Due to the high level nature of the research being conducted, during the introduction phase the researcher requested the assistance of executive managers to take part in the survey. The relevance of this was due to the nature of the information being requested. Strategic Intelligence is most often used during the Strategic Management and Strategic Decision making processes which is conducted by executive and senior management. The survey was therefore conducted

across the executive managerial level within the sample organisations, with a focus on strategic decision makers.

4.6 Research Design

Due to the descriptive nature of this research a questionnaire was utilised to collect the primary data that is needed for this study. The questionnaire technique was selected to allow the researcher an understanding of the attitudes, opinions, and organisational practices of the individuals and their organisations sampled, by having them respond to the same set of questions. This provided an efficient way of collecting responses from a large sample prior to analysis.

The purpose of a questionnaire is to find out what is transpiring, what people are thinking or doing, and how things are changing (Janes, 1999). A questionnaire is an excellent tool utilised to formulate a picture of the current state of a group: a community, an organisation, an electorate, a set of corporations, a profession (Janes, 1999). Questionnaires are snapshots, pictures of a particular point or period of time, although longitudinal questionnaires are created that take place over longer periods (Janes, 1999).

Baker (2003) states that if a questionnaire is to be an efficient tool for collecting data it must fulfil five functions:

- maintaining the respondent's co-operation and involvement;
- communicating with the respondent;
- helping the respondent to work out his answers;
- making the researcher's task easy;
- providing a basis for data processing.

While the use of a questionnaire is substantiated above, it should be noted that a questionnaire has its strengths and weaknesses (Leedy and Omrod, 2005; Saunders *et al.*, 2007):

Strengths include:

- The questionnaire can be sent to a large number of individuals, over a large distance.

- Participants can respond to questions with the assurance that their responses will remain confidential and anonymous, which may elicit a more truthful response.
- Data collected is easier to analyse and turn into quantitative results.

Weaknesses include:

- Many individuals who receive questionnaires do not return them resulting in a low response rate.
- Responses are based on personal interpretation of questions.
- The researcher cannot interact or observe respondents.

Two universal steps exist in the construction of a comprehensive and valid questionnaire: the first involves the writing of good questions, while the second deals with the actual design and construction of the questionnaire.

Janes (1999) states that the art of writing good, non-biased, answerable questions that will supply usable data is a difficult process. Janes (1999) explains that people will answer the question you ask them, not necessarily the question you wanted to ask them. The phrasing, meaning and construction of questions have a profound implication for the answers you receive (Janes, 1999). In order to construct good questions a guideline should be followed to minimise common errors. Good questions are (Baker, 2003; Janes, 1999; Mouton, 2001):

- Related to the problem at hand.
- The correct type to get the best information (open-ended, closed-ended or multiple choice).
- Clear, unambiguous, precise – give definitions and avoid slang.
- Not leading.
- Able to be answered by the subjects.
- Not double-barrelled.

- Short.
- Not negative.
- Unbiased.

Saunders *et al.* (2007) explain that the design of each question is determined by the data you need to collect. After the working of a question has been finalised, the type of a question should be identified (Saunders *et al.*, 2007). Most questionnaires make use of open-ended or instructed questions, and closed-ended or structured questions.

Open-ended questions allow respondents to give answers in their own way, and are useful if one is not sure of the response and would like a detailed answer (Saunders *et al.*, 2007). Open-ended questions are most appropriate in exploratory, qualitative research (Baker, 2003).

Closed-ended or structured questions provide a number of alternative answers from which a respondent can choose (Saunders *et al.*, 2007). The benefits of structured questions include the speed of completion and analysis, accuracy and comparability of data, and they require minimal writing (Baker, 2003).

Saunders *et al.* (2007) identify six types of closed-ended questions:

- List questions, which offer the respondent a list of responses, any of which they can choose. Such questions are useful when a respondent is required to consider all possible responses, but this requires a clearly defined and meaningful list.
- Category questions are designed to allow only a single response selected from a given set of categories. This type of question is useful when collecting data about behaviour or attributes. Responses should be placed in logical order and be mutually exclusive, covering all possible responses.
- Ranking questions, ask a respondent to place items in a rank order. This allows one to determine the relative importance of the items to the respondent.
- Rating questions are used to collect opinion data, where a rating device is used to record responses. The Likert rating scale is most frequently used, in which a respondent is asked

how strongly they agree or disagree with a statement or series of statements, often on a four to seven-point scale.

- Quantity questions, to which the response is a number giving the amount of the characteristic.
- Grid question, where responses to two or more questions can be recorded on the same matrix at the same time.

Once the questions are written, and the question type is selected, one needs to construct and design the questionnaire which will be administered to the respondents. The following aspects should be considered (Janes, 1999):

- Order of the questions. Janes (1999) advises that the questionnaire should lead with the most interesting questions to get respondents to start answering questions, leading to more complex questions topics in the middle, and ending off with personal and sensitive questions.
- Instructions, with general instructions at the beginning, and more specific instructions at each individual question.
- Physical design and layout. Questionnaires should be well spaced out to maximise white space, to make it seem uncluttered and clean. Questionnaires should not be too long, and should not include abbreviations. It should be attractive with options and directions clear.

The difficulty of using structured self-administered questionnaires is keeping respondents involved and interested (Baker, 2003). The techniques provided to achieve this include (Baker, 2003):

- Varying the type of question asked.
- Giving the respondent things to do.
- Using visual aids.
- Scattering questions on the same theme.

- Introducing interesting questions as soon as possible.
- Making sure the questionnaire flows.

Prior to utilising the questionnaire to collect data, it is important to pilot test the questionnaire. Saunders *et al.* (2007:386) explain the purpose of a pilot test “*is to refine the questionnaire so that respondents will have no problems in recording the data*”. The pilot will allow one to check each completed questionnaire, to ensure that the respondents understand the questions and follow the instructions as expected (Saunders *et al.*, 2007).

4.7 Research Instrument

Due to the geographical spread of the participants, the researcher concluded the best method of distribution was by administering an electronic questionnaire using the internet. To assist in this task an open source survey application named LimeSurvey (<http://www.limesurvey.org>) was utilised. The application allowed for the creation of unlimited categories with questions, and furthermore allowed for an unlimited number of respondents. LimeSurvey provided a simple interface to participants, and informed the researcher of all completed questionnaires allowing the researcher to export the results into an excel document, which would be used as the basis for data analysis.

The research instrument is a critical component of the research undertaken, and the physical design and layout, order of questions and instructions are critical in gaining the respondents’ interest which leads to a fully completed questionnaire.

For the purpose of this study, a questionnaire was developed, and then divided into different parts focusing on a single topic each. By structuring the questionnaire into different parts per topic, simplified the completion and analysis of the results. In this context the questionnaire comprised four parts, some of which were further broken down into smaller sections, and included the following:

- **Part 1** defined the purpose of the questionnaire to the respondent, instructions for the completion of the questionnaire and provided contact information. Furthermore, definitions of the most common terminology were provided as a base of understanding between the researcher and the respondents.

- **Part 2** consisted of general organisational information questions regarding the respondent's organisation.
- **Part 3** focused on the strategic management and intelligence topics which were part of the research, and included number questions developed for each topic. Part 3 of the questionnaire consisted of the following sections:
 - **Section 1: Strategic Management and Strategic Decision-Making.**
 - **Section 2: Business Intelligence**
 - **Section 3: Competitive Intelligence**
 - **Section 4: Knowledge Management**
 - **Section 5: Strategic Intelligence**
- **Part 4** consisted of questions regarding the personal details of the respondent.

The format of the questions used in Part 3 of the questionnaire is summarised in the table below:

Table 6 - Format of Survey Questions

Type of Question	Questions in Questionnaire
Open-Ended Questions:	<p>Section 2: 3.2.6.</p> <p>Section 3: 3.3.12.</p> <p>Section 4: 3.4.14.</p> <p>Section 5: 3.4.26.</p>
Closed-Ended or Structured Questions:	
Rating Questions consisted of a list of questions which the respondents were asked to rate a value by means of a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree", or "Hardly Used" to "Often Used" or "No Impact" to "High Impact".	<p>Section 1: 3.1.1, 3.1.2, 3.1.2, 3.1.4, 3.1.5, 3.1.6.</p> <p>Section 2: 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5.</p> <p>Section 3: 3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 3.3.6, 3.3.7, 3.3.8.</p> <p>Section 4: 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.5, 3.4.6, 3.4.7, 3.4.8, 3.4.9, 3.4.10, 3.4.11, 3.4.12, 3.4.13.</p> <p>Section 5: 3.5.1, 3.5.2, 3.5.3, 3.5.4, 3.5.5, 3.5.6, 3.5.7, 3.5.8, 3.5.9, 3.5.10, 3.5.11, 3.5.12, 3.5.13, 3.5.14, 3.5.15, 3.5.16, 3.5.17, 3.5.18, 3.5.19, 3.5.20, 3.5.21, 3.5.23, 3.5.24.</p>

List Questions offered the respondents a number of answers, from which they could choose.	Section 3: 3.3.9, 3.3.10, 3.3.11. Section 5: 3.5.22.
Category Questions allowed the respondent to select only a single answer to the question.	Section 5: 3.5.25.

Instructions for the questions and their completion were positioned directly above the question if they were closed-ended questions and directly after the question in the instances of open-ended questions.

To confirm and ensure that the questionnaire would provide the correct response to answer the research questions and objectives, it is important to pilot the questionnaire (Saunders *et al.*, 2007). Piloting a questionnaire allows the researcher to refine the questionnaire to ensure that respondents have no difficulty in answering the questions and that there are no problems in recording the completed data (Saunders *et al.*, 2007). Furthermore, this process will allow the researcher to assess the questionnaires validity and likely reliability of the data to be collected, and ensure that the questionnaire will enable the investigative questions asked to be answered (Saunders *et al.*, 2007). Accordingly the questionnaire was presented to a small sample of respondents in order to identify any potential problems, or misunderstandings which could have occurred. Minor adjustments were made to the final questions, following the feedback from the individuals, after which it was constructed in the online survey application and distributed to the respondents included in the research sample. The questionnaire used in this study appears in Appendix C.

4.8 Data Collection

The Data Collection process started with the gathering of contact information of the sample the researcher had selected to be part of the study. Contact information was firstly received from the Financial Services Board (secondary data), and in instances where the contact details were outdated, the newer details were gathered from the individual organisations online web presence (primary data).

Due to the nature of the Long-Term Insurance Industry, individual companies head offices are found throughout South Africa with the more predominant locations being Johannesburg, Cape

Town, Pretoria and Durban. Due to the geographical distances between each organisation it was decided to contact the individual organisations telephonically to introduce the researcher and his topic of study. The telephonic calls further assisted in gaining buy-in from the appropriate executives, who mostly confirmed their willingness to participate in the survey and provided personal contact information to forward further details, however gaining access to the correct executives proved difficult.

After the initial introductory efforts were concluded an email was sent to the participants to provide a greater understanding of the topic of study, with a cover letter from the researchers sponsor at the University of South Africa explaining the purpose of the research and its legitimacy. The email provided a platform from which the participants could either decline to participate or could follow the provided electronic address to the online questionnaire.

The data collection took place over a period of two months, from the 1st April 2009 ending on the 1st June 2009. During this period several reminders were sent to the participants on a weekly basis, occurring every Monday.

Upon nearing the final date for submission, a final reminder was sent to the participants and an email to all respondents to thank them for their assistance. Once the final submission date had been reached the data collected from the online questionnaires was extracted from the software package into a excel document from which the analysis could be conducted.

4.9 Response Rate

The focus of this research was on the six companies which are listed on the Johannesburg Securities Exchange, all of which participated in the research survey and completed the questionnaire for inclusion in this research. The researcher's goal was therefore met with a 100% response rate.

To broaden the scope of the research, the sample size was increased to include all the 82 Long-Term Insurance companies which were registered with the Financial Services Board. Of these 82, three had closed down before the study was conducted, four organisations confirmed that while they did have Long-Term Insurance licences they were not part of the industry, and 14 companies were subsidiaries or divisions of the larger organisations and as such their answers

were included with those of the larger organisations. Subtracting these 21 companies from the total sample of 82 left a sample size of 61 organisations.

A final response rate of 36.1% was achieved, including the 100% response rate from the six listed organisations.

Table 7 - Survey Response Rate Results

	Final Results
Completed Questionnaires.	22
Participants who were willing to participate and received reminders, but did not complete a questionnaire before survey closing date.	25
Participants who did not want to participate or could not participate.	14
Total Respondents	61
% Response Rate	36.1%

4.10 Data Reliability

The reliability of a measurement instrument is the extent to which it yields consistent results when the characteristic being measured has not changed (Leedy and Omrod, 2005).

Several forms of reliability are identified (Leedy and Omrod, 2005):

- Interpreter reliability is the extent to which two or more individuals evaluating the same product or performance give identical judgements.
- Internal consistency reliability is the extent to which all the items within a single instrument yield similar results.
- Equivalent forms reliability is the extent to which two different versions of the same instrument yield similar results.
- Test-Retest reliability is the extent to which the same instrument yields the same result on two different occasions.

For the purpose of this research undertaking, we will test the internal consistency which involves correlating the responses to each question in the questionnaire with those of other questions in the questionnaire (Saunders *et al.*, 2007). Internal consistency will therefore be tested per section of the questionnaire. The most frequent method of testing for internal consistency is Cronbach's alpha (Saunders *et al.*, 2007).

4.11 Data Validity

The validity of a measurement instrument refers to the ability or extent of the measurement instrument to measure what you actually intended to measure (Leedy and Omrod, 2005; Saunders *et al.*, 2007). Validity can take different forms (Leedy and Omrod, 2005; Saunders *et al.*, 2007):

- Face validity is the extent to which, on the surface, an instrument looks like it's measuring a particular characteristic. Face validity relies on subjective judgement and is not considered convincing evidence.
- Content validity is the extent to which a measurement instrument is a representative sample of the content area being measured.
- Criterion validity is the extent to which the results of an assessment instrument correlates with another, presumably related measure. It is concerned with the ability of the measures to make accurate predictions.
- Construct validity is the extent to which an instrument measures a characteristic that cannot be directly observed but must instead be inferred from patterns in people's behaviour.

In the context of validity in this research study, the questionnaire was tested for face validity, content validity and construct validity through a process of pre-testing the research instrument by piloting it to a small number of individuals. The comments received from these individuals lead to minor adjustments being made, after which it was distributed to the sample.

4.12 *Limitations*

The research conducted in this study was limited to the Long-Term Insurance Industry, which presented a number of problems not unique to this study, in the collection of data. The main problems that influenced this research included:

- A number of the organisations contacted were very large and were very excited to be included in the study, while others, were of much smaller size and were reluctant to take part (See Appendix D for the complete list of organisations).
- Gaining access to the correct knowledgeable respondents proved very difficult due to the scarcity of knowledge of this topic, and the tight schedules of corporate executives.
- A number of organisations had concerns over the confidentiality of the data to be collected. It was explained that the data would be used in a generic context and would not focus on an individual organisation.
- While a number of organisations that form part of the sample were willing to participate in the study, a large number did not complete the questionnaire before the cut off date, even with the extended time frame of two months from initial contact, and a number of reminders.

While these problems were not unique to this study, it resulted in a low response rate.

4.13 *Ethical Considerations*

Researchers are often faced with ethical concerns while planning their research, seeking access to organisations or to individuals, data collection, analysis and reporting of their data. Saunders *et al.* (2007:178) quote a definition of ethics by Blumberg *et al.* as “moral principles, norms or standards of behaviour that guide moral choices about our behaviour and our relationships with others”. Research Ethics considers the suitability of the researcher’s behaviour in relation to the rights of cases who become the subject of, or are affected by the research study. Research ethics consequently relates to the researchers formulation and clarification of their research topic, the design of the research and the gaining of access, the collection of data, the processing and storing of data, analysis of the data, and the write up of the research findings in a moral and

responsible manner (Saunders *et al.*, 2007). Saunders *et al.* (2007) identify key ethical concerns which arise throughout the research study; some of these include (Saunders *et al.*, 2007):

- Privacy of possible and actual participants.
- Voluntary nature of participation and the right to withdraw partially or completely from the process.
- Consent and possible deception of participants.
- Maintenance of the confidentiality of data provided by individuals or identifiable participants and their anonymity.
- Reactions of participants to the way in which data is collected.
- Effects on participants to the way, in which data is used, analysed and reported on.
- The behaviour and objectivity of the researcher.

Ethical standards were adhered to throughout the research process, whereby consideration was given to maintaining fairness, honesty, protection from any harm, a right to privacy, openness of intention of the study, respect for the integrity of the respondents and the informed willingness of the respondents to participate voluntarily in the research study (Leedy and Omrod, 2005).

Confidentiality and Anonymity, was shown to be of immense importance to all participants, and all information provided in terms of organisational and personal demographic information was held in the strictest of confidentiality by the researcher, and was only used for reference and reflection by the researcher, guaranteeing anonymity to the respondents within the completed research findings (Leedy and Omrod, 2005).

The research findings were based on fully completed questionnaires, submitted by participants approached, and was presented honestly and without any distortion, as there were no incomplete questionnaires that had to be remedied. Furthermore, all data collected and analysed was utilised for research purposes only (Leedy and Omrod, 2005).

4.14 *Conclusion*

This chapter was used to outline the research methodology which was followed to complete the empirical part of the research study. The steps in the process was outlined, which included the population and sample of the study, followed by the research design, method and a discussion of the instrument designed specifically for this research.

Following this, the data collection process was discussed and explained in detail, an indication of the response rate, with a further discussion on the reliability and validity of the data collected and ethics utilised in the study.

The following chapter will discuss how the data is analysed, and then discuss the results of the study with regards to the individual variables, their correlation to each other, reliability of the research data and instrument, and conclusions with regard to the study's goals and objectives.

Chapter 5

Analysis of the Research Results

“Thus, what is of supreme importance in war is to attack the enemy's strategy.” - The Art of War by Sun Tzu, 6th century BC.

5.1 Introduction

The previous chapter outlined the research methodology used during this study, and provided specific information regarding the research's purpose – its goals and objectives, the population and sample, the research method and design, the research instrument used, the data collection process, data reliability and validity, and ethical considerations. This chapter discusses how the data was analysed, and then discusses the results of the study with regards to the individual variables, their correlation to each other, reliability of the research data and instrument, and conclusions with regard to the study's goals and objectives.

As discussed in the previous chapter the research data were collected by means of descriptive research, focused on a non-probability purposive sample of the long-term insurance industry. Of the 82 registered long-term insurance companies approached, we focused intensely on the six listed Long-Term Insurance companies due to their size and our belief that these companies would be on the forefront of Strategic Intelligence research and use. Of the 82 companies approached, we received 22 completed questionnaires, made up of the six listed Long-Term Insurance companies, including a further 16 smaller companies to add further depth to the research. Our focus remained on the six listed companies which provided us with a success rate of 100%, however, of the greater sample of 82, only 22 responded resulting in a success rate of 36.1%.

A large sample was not required for this research due to the focus of this research being on gathering a depth of information, based on a purposive sample of the Long-Term Insurance Industry. An extensive questionnaire was used to collect a large amount of information from the sample which was used as the basis of these results.

The data received from the 22 completed questionnaires were subsequently captured and analysed with the use of the statistical software program SPSS, version 16.0. This software package was used for data coding, data capturing, statistical analysis and internal consistency testing.

The variables from the questionnaire were firstly identified and coded. Secondly, the data was captured into SPSS and cleaned up to assure no anomalies were present. Thereafter the following statistical analysis procedures were performed:

- Descriptive statistics: Mean, median, standard deviation and variance,
- Frequency analysis and distribution: Frequency tables and bar graphs,
- Cross tabulations,
- Correlation analysis.

Since a non-probability sampling technique (purposive sample) was used to select the respondents for the study, no generalization was possible, and hence no inferential statistical techniques were performed.

Furthermore, the internal consistency of the likert-scale items in each section was measured by means of the Cronbach Alpha Coefficient.

The research results will now be analysed according to the structure used in the questionnaire format. The different parts and sections which comprised the questionnaire include:

- Organisational Information
- Strategic Management and Strategic Decision-Making
- Business Intelligence
- Competitive Intelligence
- Knowledge Management
- Strategic Intelligence

5.2 Organisational Information

The responses to part 2 of the questionnaire described the organisational characteristics of the respondents. More specifically the aims of questions 2.2 and 2.3 were to determine the size of the organisations, and the geographical exposure of their operations. The remaining questions in part 2 of the questionnaire were focused on the identity of the organisation on behalf of which the respondent was responding, and the financial characteristics of the organisations. However,

due to the number of organisations that are not listed on the Johannesburg Securities Exchanges, these figures were not readily available and will therefore be ignored in this research. It is however, valuable to mention that the six largest and listed Long-Term insurance companies participated in this research and their market capitalisation amounted to R170, 543 million on the 5th of January 2010, which clearly indicates their dominance of the industry and the strong influence they have on the local industry.

The aim of question 2.2 was to ascertain the number of employees that each organisation employed. The question consisted of three scales, less than 50 employees, between 50 and 500 employees, and more than 500 employees. The spread of respondents across these three scales were very pleasing with 6 respondents (27.3%) having selected less than 50 employees, 8 respondents (36.4%) selected between 50 and 500 employees, and a further 8 respondents (36.4%) selected more than 500 employees. This provided an exciting breadth in the study and broadened the research outlook to determine the utilisation of Strategic Intelligence across all sizes of organisations. This information is provided in Figure 15.

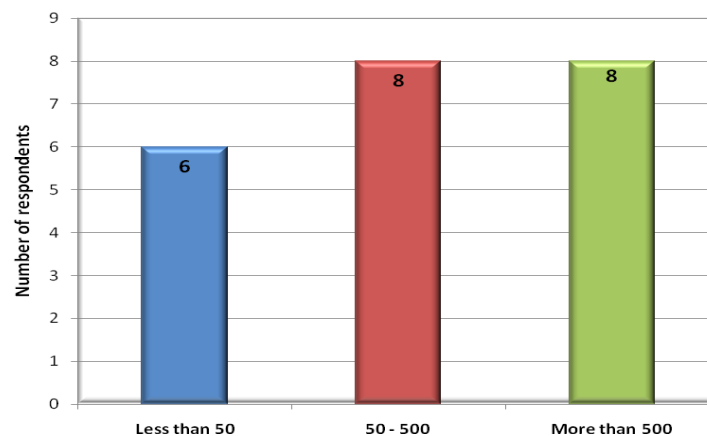


Figure 15 - Number of Employees (n=22)

Question 2.3 expanded on the organisational information by determining the geographical exposure of respondents operations. The aim of the question was to determine whether the respondents were active only in South Africa or if they were key players with a global footprint. Figure 16 visually depicts the geographical exposure of the respondents.

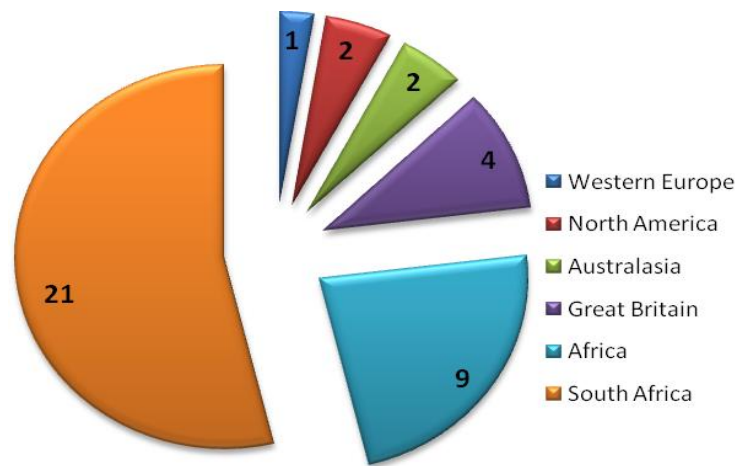


Figure 16 - Geographical exposure of operations (n=22)

The results indicate that all respondents were locally focused, with 21 of the 22 respondents indicating they had direct exposure to South Africa. It is furthermore, interesting to note that the single respondent indicated that they had geographical exposure to the entire African continent, and therefore did not select the “South Africa” option on the questionnaire, proving their global outlook, but distorting the results to show only 21 respondents selected South Africa.

Furthermore, it was interesting to note that of the six companies who had less than 50 employees, only two had international exposure, one had exposure to the rest of Africa, while the other had exposure to Western Europe.

Of the respondents who indicated their number of employees as between 50 and 500, two had exposure to the rest of Africa, one of which had further exposure to Great Britain.

The respondents who indicated their employee numbers where greater than 500 had the greatest global exposure, with six having exposure to Africa, two to North America, three to Great Britain, and two to Australasia.

It is important to note that none of the respondents had exposure to South America, nor Eastern Europe. Both are untapped emerging markets which are currently experiencing tremendous growth, however, are perceived to be high risk. Through intensive Strategic Intelligence gathering and analysis, the researcher believes that these markets could provide exceptional growth opportunities.

The organisational information provided above clearly indicates that the larger organisations had the greatest international exposure with smaller organisations being more focused on their local market.

Against this background of the respondents, the focus now shifts to part 3 of the questionnaire, which dealt with the strategic management and intelligence topics which formed the greater part of the research, and included number questions developed for each topic.

5.3 Strategic Management and Strategic Decision-Making

The first section of part 3 of the questionnaire was developed to understand the decision-making capabilities of the organisations surveyed. Strategic Management and Strategic Decision-Making are both important managerial activities which impact the formulation and implementation of long-term direction within organisations (Pearce and Robinson, 2005; Mellahi *et al.*, 2005).

Based upon this perspective it was therefore critical to gain an understanding of the extent to which respondents undertake strategic management within the Long-Term insurance industry. To this extent questions 3.1.1 to 3.1.6 were developed to determine the following:

- Whether the respondents utilise a formalised Strategic Management Process?
- Whether the respondents recognise Strategic Management as a necessary activity for business?
- Whether the respondents view information as having strategic value?
- Whether the respondents believe that good strategy hinges on having timely, relevant and high quality information?
- Whether the respondents provide their managers with critical and relevant information for strategic decision making?
- Whether the respondents provide their managers with access to information that provides them a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability ,and the implications of trends in these areas for the firm?

The different questions in section 1, part 3 of the questionnaire will now be discussed.

5.3.1 Discussion of Results

The aim of question 3.1.1 was to determine whether the respondents made use of a formalised strategic management process within their organisation. The mean score of the question was calculated to be 3.91, and had a standard deviation of 0.811. Standard deviation identifies the extent to which respondents provide similar responses to a question. The greater the standard deviation the greater the spread of responses, and the less agreement there is amongst the respondents. The standard deviation for this question was relatively low indicating their agreement to the statement. Figure 17 clearly depicts this result indicating that the majority of respondents responded positively to this statement and therefore make use of formalised Strategic Management Process within their organisation.

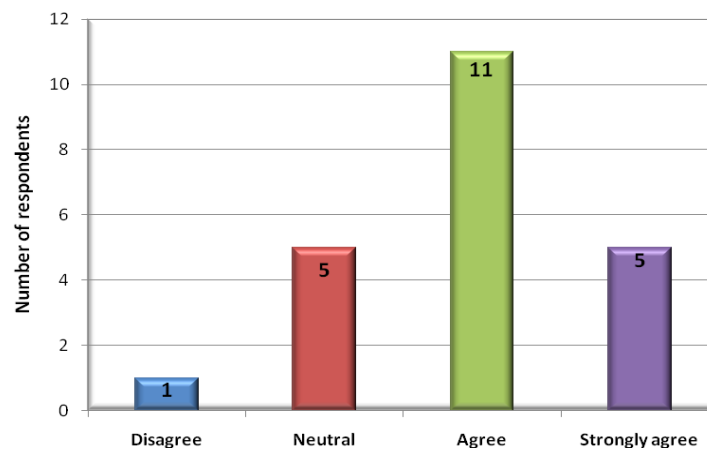


Figure 17 - Use of a Formalised Strategic Management Process (n=22)

The purpose of question 3.1.2 was to determine whether the respondents recognise Strategic Management as a necessary activity for business. The mean was 4.27, with a low standard deviation of 0.703. The low standard deviation indicates that the respondents concurred with the results shown by the mean. Figure 18 visually depicts this result as being highly positive, indicating that the respondents believe that strategic management plays a critical role in the functioning of their organisations.

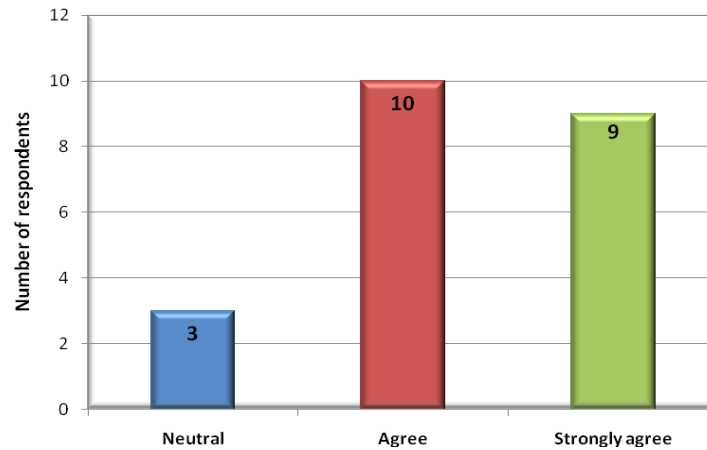


Figure 18 - Strategic Management as a necessary activity in business (n=22)

Question 3.1.3 questioned whether organisations viewed information as having strategic value. The mean was determined to be 4.36, with a very low standard deviation of 0.658 indicating the respondents' agreement with the statement. Figure 19 displays this result, with 10 respondents agreeing and a further 10 strongly agreeing, making it clear that organisations view information as having strategic value.

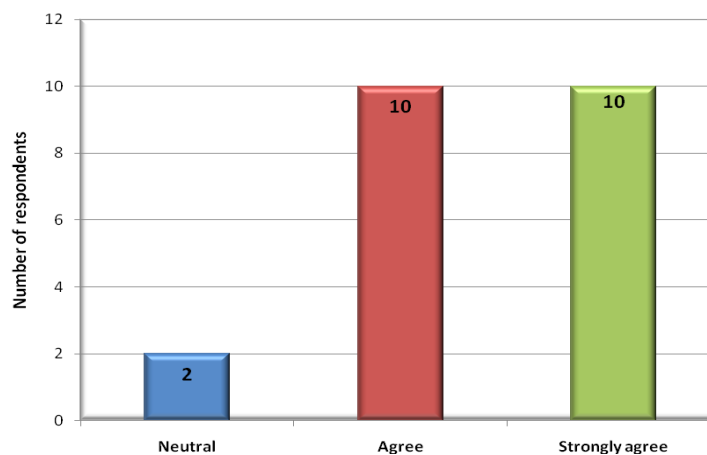


Figure 19 - Information has Strategic Value (n=22)

However, question 3.1.4 questioned the value of information on good strategy. The question sought to determine whether the respondents believed that good strategy hinged on having timely, relevant and high quality information. With a mean of 4.23, a low standard deviation of 0.685, it is clear that the respondents concurred with the statement that organisations believe that timely, relevant and high quality information determined the quality of an organisations strategy. This information is shown in figure 20.

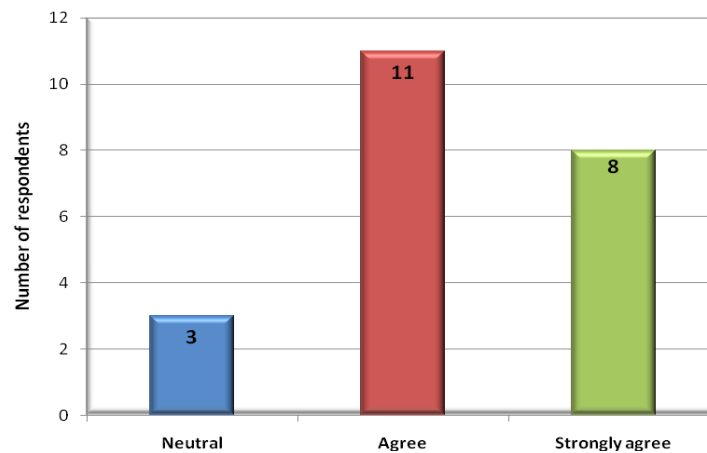


Figure 20 - Good Strategy hinges on having timely, relevant and high quality information (n=22)

However, while the previous questions proved that the organisations believe that information adds value, and good strategy hinges on the correct information being provided, question 3.1.5 questioned whether organisations actually provide their managers with critical and relevant information for strategic decision making. The results of the question provided a mean of 3.36, a higher standard deviation of 0.953. The higher standard deviation indicates that there was a wide range of opinion regarding this question, see figure 21, with the majority of respondents remaining either neutral, or disagreeing with the statement. Delving deeper into the results and sorting the results by the number of employees show that a lower mean of 2,83 is attributed to companies with fewer than 50 employees, while a higher mean of 3.75 is attributed to companies with more than 500 employees (Results viewable in Appendix F). This clearly indicates that smaller organisations do not have the capacity to provide managers with the required information, as larger organisations do.

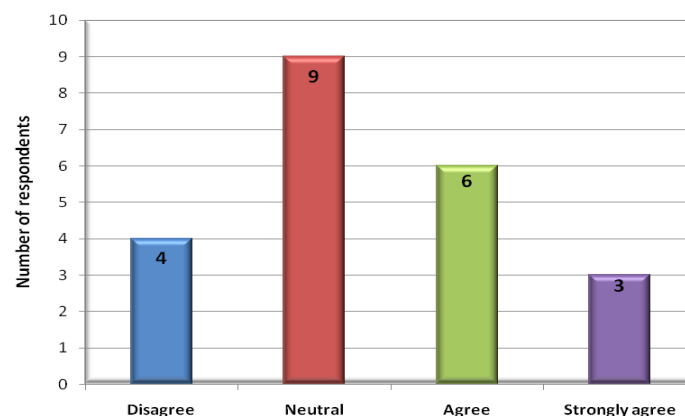


Figure 21 - Critical and Relevant information is provided for Strategic Decision-Making (n=22)

Question 3.1.6 sought to expand on the results provided by the previous question by enquiring whether respondents believed that their organisation provided their managers with access to information that provides a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability, and the implications of trends in these areas for the firm. While the question was a lengthy one, and enquired about a range of topics, it simply delved deeper into availability of internal information regarding the external environment. The question received a mean of 3.27, and a high standard deviation of 1.032. The high standard deviation indicates that the respondents did not concur and provided a large spread of results. The results clearly indicate that managers in most organisations do have comprehensive access to the information they require, while others do not. It was interesting to note that there was not as high a distinction between the size of the organisation and the results for this question, with smaller organisations having a mean of 3.00 and large organisations a mean of 3.50 (Results viewable in Appendix F). It again clearly showed that the smaller organisations are at more of a disadvantage than larger organisations. Figure 22 provides a display of this information.

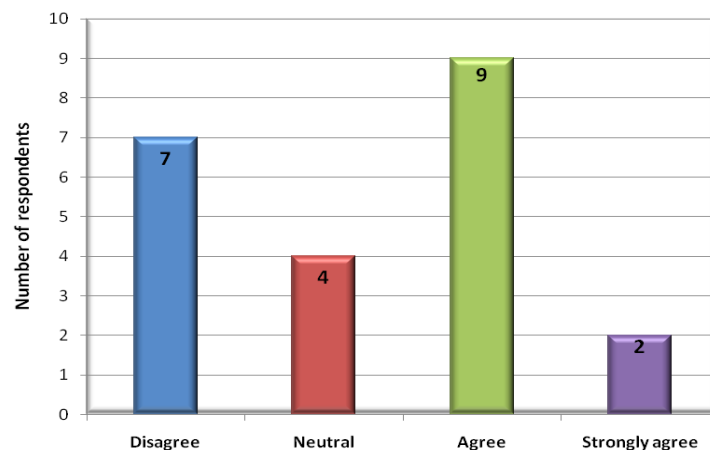


Figure 22 – Access to Information for Managers (n=22)

5.3.2 Ranking Variables

With regard to the variables answered by the respondents, for section 1 - Strategic Management and Strategic Decision-making, the tabulation of the overall mean and standard deviation results identify the variables that are considered as the most and least important by the respondents. All the variables are ranked in table 8 and table 9 below.

Table 8 illustrates the variables sorted by their mean scores. The ranking clearly illustrates that the majority of respondents agreed positively to all the questions, with the higher mean scores relating to the recognition the organisations place on information and strategic management. It is however, interesting that the mean scores were found to be lower for the remaining questions which emphasise the actual use of formal processes, and provision of information to management.

Table 8 - Section 1 Variables sorted by Mean

SECTION 1: STRATEGIC MANAGEMENT AND STRATEGIC DECISION-MAKING			
Variable	Question	Mean	Std. deviation
3.1.3	Our organisational views information as having strategic value.	4.36	0.658
3.1.2	Our organisation recognises Strategic Management as a necessary activity for business.	4.27	0.703
3.1.4	We believe that good strategy hinges on having timely, relevant and high quality information.	4.23	0.685
3.1.1	We utilise a formalised Strategic Management Process.	3.91	0.811
3.1.5	Our organisation provides its managers with critical and relevant information for strategic decision making.	3.36	0.953
3.1.6	We believe our organisation provides our managers with access to information that provides a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability ,and the implications of trends in these areas for the firm.	3.27	1.032

Table 9 sorts the tabulated variables by their standard deviation scores, which depict the level of agreement between respondents. The higher the standard deviation score, the greater the range of responses to the question, indicating the lack of consensus among the respondents answers. The highest standard deviation found for this section was for variable 3.1.6, and was 1.032, which coincidentally was the same variable with the lowest mean score. Interestingly, the tabulated ranking shows that the variable with the highest mean score has the lowest standard deviation, and the variable with the highest standard deviation had the lowest mean score.

Table 9 - Section 1 Variables sorted by Standard Deviation

SECTION 1: STRATEGIC MANAGEMENT AND STRATEGIC DECISION-MAKING			
Variable	Question	Mean	Std. deviation
3.1.6	We believe our organisation provides our managers with access to information that provides a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability ,and the implications of trends in these areas for the firm.	3.27	1.032
3.1.5	Our organisation provides its managers with critical and relevant information for strategic decision making.	3.36	0.953
3.1.1	We utilise a formalised Strategic Management Process.	3.91	0.811
3.1.2	Our organisation recognises Strategic Management as a necessary activity for business.	4.27	0.703
3.1.4	We believe that good strategy hinges on having timely, relevant and high quality information.	4.23	0.685
3.1.3	Our organisational views information as having strategic value.	4.36	0.658

5.4 Business Intelligence

Business Intelligence is found to include architecture, tools, databases, analytical tools, applications and different methodologies which provide managers with the ability to conduct analysis on their internal operations, allowing them to make effective, and strategic business decisions (Haag *et al.*, 2007; Turban *et al.*, 2007).

The second section of part 3 was therefore developed to gain an understanding into the Business Intelligence activities that are undertaken by the organisations surveyed. To this extent question 3.2.1 to 3.2.6 where developed to answer the following:

- Do the respondents collect and utilise Business Intelligence in decision-making?
- Are the respondents Business Intelligence valid, reliable and actionable?
- Has the availability of Business Intelligence increased the effectiveness of managerial decision-making?

- Do organisations have predefined dashboard views of their organisations?
- Which software applications do the respondents make use of to gather and generate Business Intelligence?

The different questions in section 2, part 3 of the questionnaire will now be discussed.

5.4.1 Discussion of Results

The focus of question 3.2.1 was to determine the extent to which the respondents utilise Business Intelligence in decision making. A mean of 3.50 was calculated with a standard deviation of 1.102. While a high spread in response values can be seen in the standard deviation of this question, displayed in Figure 23, a large proportion of respondents remain neutral or answer in the positive. Analysis of the results sorted by the number of employees in the organisation provides further insight by showing that a low mean of 2.67 occurs for organisations with less than 50 employees, and a mean of 4.12 for organisations with more than 500 employees. The results distinctly provide evidence that larger organisations make greater use of Business Intelligence than smaller organisations.

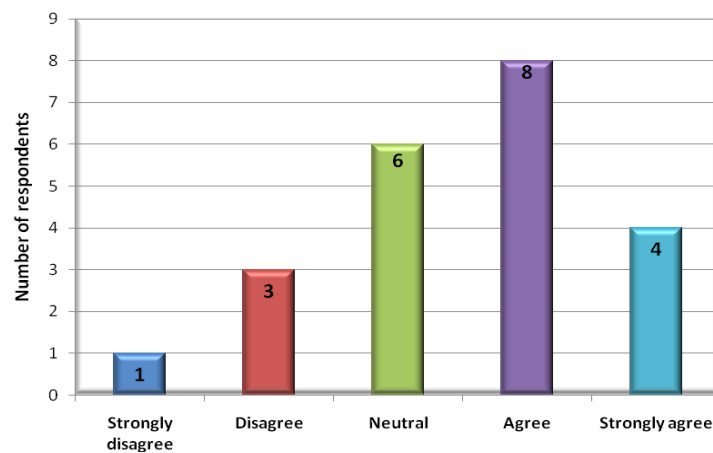


Figure 23 - Use of Business Intelligence in Decision-Making (n=22)

Question 3.2.2 aim was to determine whether the organisations Business Intelligence is valid, reliable and actionable. The mean was determined to be 3.36, with a high standard deviation of 1.217 indicating that while there was a high spread in response values, it proved that the majority of organisations do in fact have access to valid, reliable and actionable Business Intelligence. Again, there was a huge gap between the results provided by smaller organisations with a mean of 2.17, and a mean of 4.25 for large organisations. The results clearly display that smaller

organisations are at a disadvantage due to their lack of Business Intelligence identified in the previous question but also to their access to valid, reliable and actionable Business Intelligence. Figure 24 displays these results.

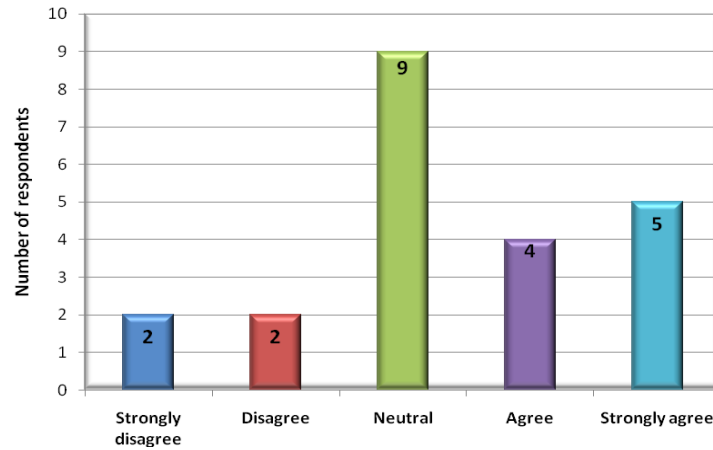


Figure 24 - Business Intelligence is valid, reliable and actionable (n=22)

Irrespective of the bias in terms of the results against smaller organisations in the previous two questions, question 3.2.3 provided a more positive insight into the use of Business Intelligence. The question's aim was to determine if the availability of Business Intelligence had increased the effectiveness of managerial decision making. With a mean of 3.50, and a high standard deviation of 1.102, a wide range of opinion was found; however, it was clear that the majority of respondents agreed that the availability of Business Intelligence had an impact on managerial decision making. Figure 25 provides a display of this information.

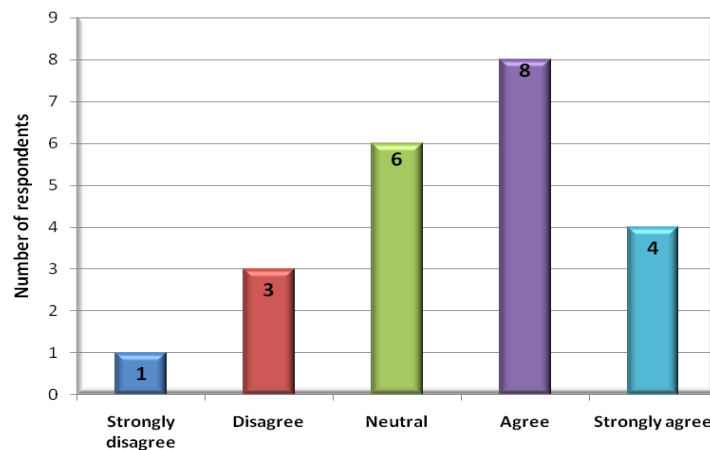


Figure 25 - Availability of BI has increased the effectiveness of Managerial Decision-Making (n=22)

The aim of question 3.2.4 was to ascertain whether organisations had a predefined dashboard view of their organisation. The low mean of 2.86, with a very high standard deviation of 1.424 provided an insightful view that a clear split occurred in the results provided by the respondents. Figure 26 shows that 45.4% of the respondents disagreed to their organisation having a predefined dashboard view of the organisation while 40.9% agreed that their organisations had predefined dashboard views of their organisation.

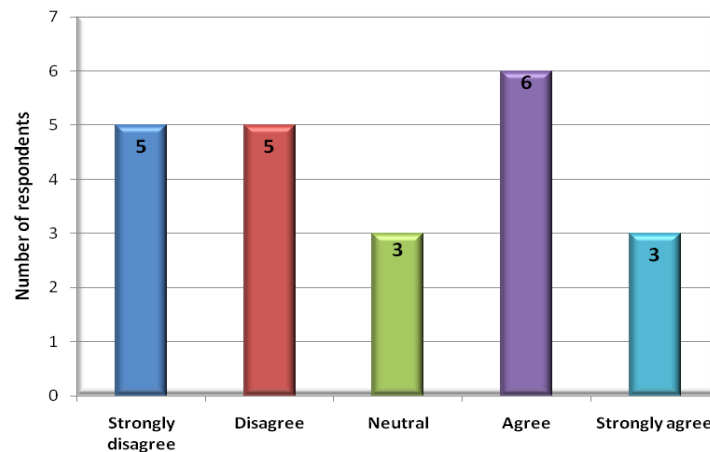


Figure 26 - We have a predefined dashboard view of our organisation (n=22)

However, building on the base that question 3.2.4 provided, question 3.2.5 delved further to determine whether organisations believed that there is value in having a predefined dashboard view of their organisation. With a mean of 4.14, and a relatively low standard deviation of 0.889, it is clear that respondents agreed that organisations believe in the value that a properly predefined dashboard can provide their managers. It is clear from the results of the two questions that while many organisations do not yet have a predefined dashboard view, they unanimously agree that one is important for managerial decision making. Figure 27 provides a visual display of these results.

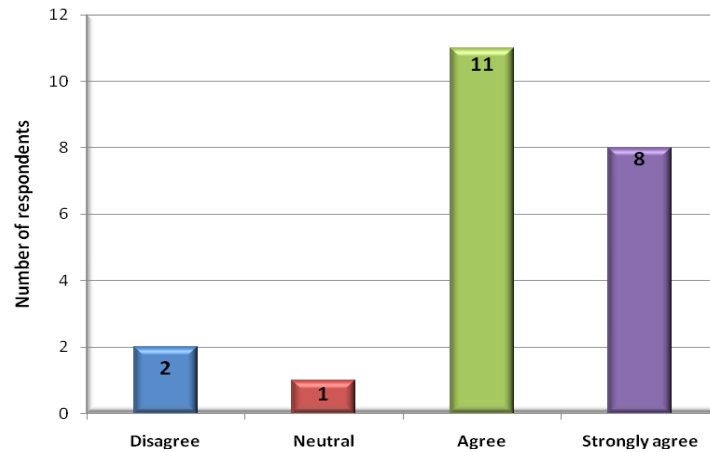


Figure 27 - Belief that there is value in having a predefined dashboard view of the organisation (n=22)

Having gained an insight into the use of Business Intelligence in organisations through the results of the previous questions, question 3.2.6 sought to enquire which software applications the organisations make use of to gather and generate Business Intelligence.

The responses including the following:

- Three respondents indicated that they did not make use of any Business Intelligence systems.
- A respondent indicated they were in the process of procuring a Business Intelligence Portal.
- Another respondent indicated that they did not have any in-house business intelligence but outsourced the role when specific assistance was required, while another also indicated that they outsourced the generation of Business Intelligence, but used in-house Management Information Systems to compare and analyse the data.
- Eight respondents make use of in-house developed systems, and built in Business Intelligence tools which form part of their financial packages. Furthermore, SQL databases and excel models are used to compile data for further analysis which are compiled into management reports.
- The other eight respondents made use of a variety of Business Intelligence systems which include:
 - Qlikview
 - Cognos

- EG Solutions operational management software
- Crystal Reports
- RADS - Unisys supported - linked to underlying data warehouse
- STD Exergy
- Hyperion
- Business objects
- SAP BI
- SPSS Clementine is used for Data Mining
- Specialist visualisation software

While no consensus seems to exist regarding the use of Business Intelligence systems, it is reassuring that 73% of the respondents do make use of either internal or proprietary business intelligence systems.

5.4.2 Ranking Variables

With regard to the variables answered by the respondents, for section 2 - Business Intelligence, the tabulation of the overall mean and standard deviation results identify the variables that are considered as the most and least important by the respondents. All the variables are ranked in table 10 and table 11 below.

Table 10 illustrates the variables sorted by their mean scores. The ranking clearly illustrates that the respondents believed there was value in having predefined dashboard views of their organisations, with the highest mean of 4.14. While the remaining variable results do indicate a positive response from the respondents, the mean values do decrease down to the lowest being 2.86.

Table 10 - Section 2 Variables sorted by Mean

<i>SECTION 2: BUSINESS INTELLIGENCE</i>			
Variable	Question	Mean	Std. deviation
3.2.5	We believe there is value in having a predefined dashboard view of our organisation.	4.14	0.889
3.2.1	We collect and utilise Business Intelligence in decision making.	3.50	1.102

3.2.3	The availability of BI has increased the effectiveness of managerial decision making.	3.50	1.102
3.2.2	Our Business Intelligence is valid, reliable and actionable.	3.36	1.217
3.2.4	We have a predefined dashboard view of our organisation.	2.86	1.424

Table 11 sorts the tabulated variables by their standard deviation scores, which depict the level of agreement between respondents. The higher the standard deviation score, the greater the range of responses to the question, indicating the lack of consensus among the respondents answers. The highest standard deviation found for this section was for variable 3.2.4, and was 1.424, which coincidentally was the same variable with the lowest mean score. Interestingly, the tabulated ranking shows that the variable with the highest mean score has the lowest standard deviation, and the variable with the highest standard deviation had the lowest mean score.

Table 11 - Section 2 Variables sorted by Standard Deviation

SECTION 2: BUSINESS INTELLIGENCE			
Variable	Question	Mean	Std. deviation
3.2.4	We have a predefined dashboard view of our organisation.	2.86	1.424
3.2.2	Our Business Intelligence is valid, reliable and actionable.	3.36	1.217
3.2.1	We collect and utilise Business Intelligence in decision making.	3.50	1.102
3.2.3	The availability of BI has increased the effectiveness of managerial decision making.	3.50	1.102
3.2.5	We believe there is value in having a predefined dashboard view of our organisation.	4.14	0.889

5.5 Competitive Intelligence

Competitive Intelligence consists of the analysis of information gathered from the market place and the generation of recommendations for decision makers, done in an ethical and legal manner (Miller, 2000). Competitive Intelligence is involved with the development of a systematic program for capturing, analysing, and managing external information and knowledge to improve organisational decision-making capabilities (Liebowitz, 2006a; Calof and Wright, 2008).

Research conducted by Malrz and Kohl in 1996 found that many organisations fail to use market information that is freely available to them (Malrz and Kohli, 1996), while Buhler (2003) maintains that organisations need to depend on information for their survival (Buhler, 2003). The ability to use correctly this information is the source of an organisations competitive advantage (Malrz and Kohli, 1996; Buhler, 2003).

With this background in mind, section three of part 3 was developed to gain an understanding of the Competitive Intelligence activities that take place within organisations. To this extent question 3.3.1 to 3.3.12 were developed to answer the following:

- To what extent do the organisations have a formal Competitive Intelligence function?
- Do the organisations make use of Competitive Intelligence in decision-making?
- Do the organisations create and distribute Competitive Intelligence to management in a timely fashion?
- Do the organisations utilise external sources of information for market research?
- Do the organisations evaluate the reliability and accuracy of their sources of information?
- Do the organisations analyse their competitors and have up to date profiles of them?
- Are the organisations up to date with emerging technologies in their field of business and the benefits/features of these technologies?
- Are the organisations cognisant of new and pending government legislation and legislative trends that impact their organisation?
- What are important sources for the collection of Competitive Intelligence Information?

- What Analytical Methods or Models are used within the organisations to generate Competitive Intelligence?
- What methods are used by organisations to distribute and present intelligence findings?
- What Software Applications do organisations use to conduct, create, analyse or store Competitive Intelligence?

The different questions in section 3, part 3 of the questionnaire will now be discussed.

5.5.1 Discussion of Results

The aim of question 3.3.1 was to determine whether the organisations have a formal Competitive Intelligence function (which utilises a standardised Competitive Intelligence Process or framework). The low mean score of 2.59, with a high standard deviation of 1.368 conclude a high spread of responses, but concurring that the majority of respondents felt that their organisations did not have a formal Competitive Intelligence function. With only 5 of the respondents providing a positive response, an in depth analysis was completed based on the size of the organisations and it was found that the majority of larger organisations had a formal Competitive Intelligence function. Figure 28 shows this information.

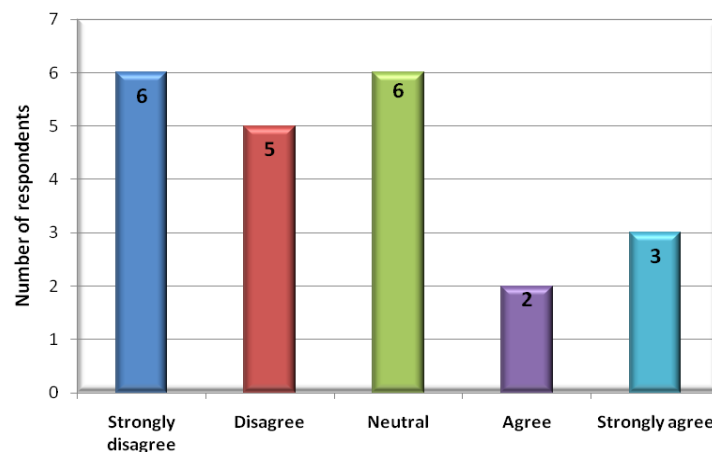


Figure 28 - Our organisation has a formal Competitive Intelligence function (n=22)

Question 3.3.2 expanded on the results of the previous question by enquiring whether the organisations make use of Competitive Intelligence in decision-making. Figure 29 depicts a positive set of results with a mean score of 3.45; however a high standard deviation of 1.101 exists indicating a wide range of opinion. The results indicate that a higher number of

respondents do make use of Competitive Intelligence even if no formal department exists, however, a clear bias does exist in terms of availability when the size of the respondents organisations are compared.

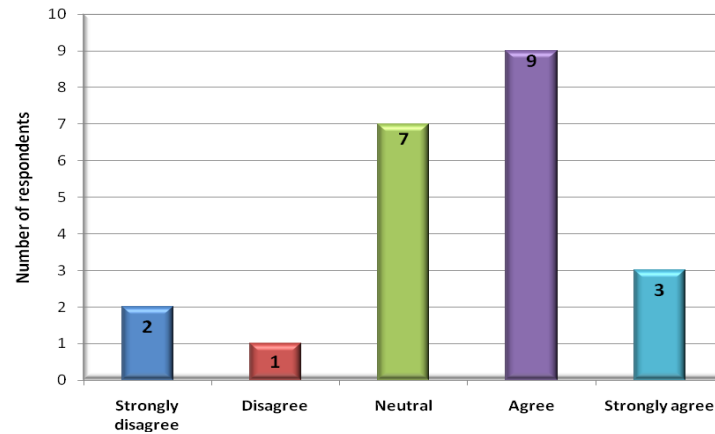


Figure 29 - Our organisation makes use of Competitive Intelligence in decision-making (n=22)

The timely creation and distribution of Competitive Intelligence to management is an important component in the successful use of Competitive Intelligence in an organisation, and question 3.3.3 asked the respondents whether this occurred successfully in their organisations. A mediocre mean score of 3.00, with a standard deviation of 1.195 displays a large dissonance between respondents, with results displayed in Figure 30 indicate that too few organisations have achieved the task of timely creation and distribution of Competitive Intelligence. Based on the size of the organisations a bias exists between the capabilities of larger versus smaller organisations. While the purpose of the research was not to investigate the difference in responses between the large and smaller organisations, the data has clearly shown a difference does exist. Responses to a number of the other variables, support this conclusion, and indicate that the disparity exists due to smaller organisations perceiving a lack of need, a shortage of skills, and a lack of funding for such capabilities.

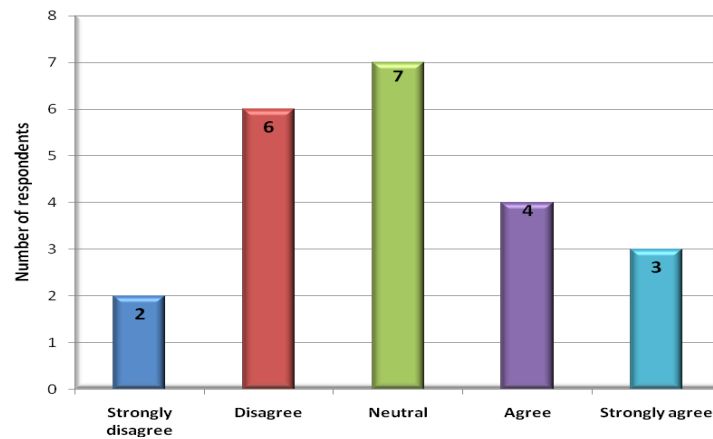


Figure 30 - Our Competitive Intelligence is created and distributed to management in a timely fashion (n=22)

The purpose of question 3.3.4 was to understand how information was gathered, and more specifically if the organisations utilised external sources of information for market research (research companies). A mean score of 3.91, with a standard deviation of 1.109 again showing great difference of opinion, indicated a spread of results with the vast majority of respondents agreeing to having used of the skills of external sources of information for market research. Figure 31 displays the results of the question.

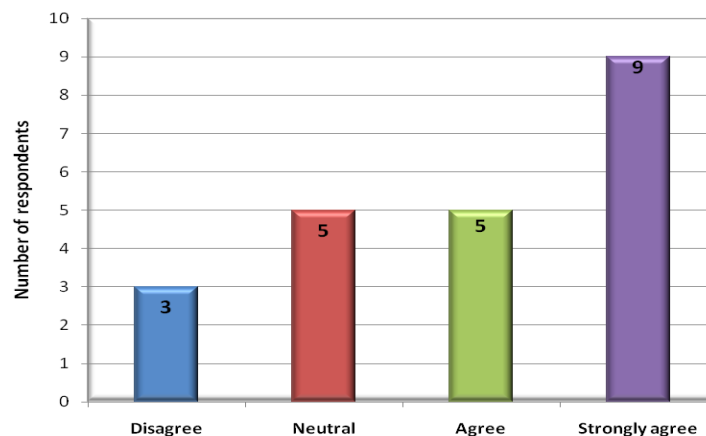


Figure 31 - Our organisation utilises external sources of information for market research (n=22)

The success of Competitive Intelligence to assist in the decision making capabilities of organisations hinges on the managers belief that the intelligence provided is reliable and accurate. Question 3.3.5 required respondents to indicate whether they evaluate the reliability and accuracy of their sources of information. A mean score of 3.23, with a high standard deviation of 1.110,

indicated that while a large discord in opinion appeared, the reliability and accuracy of the sources of information was in fact evaluated. The results are shown in Figure 32.

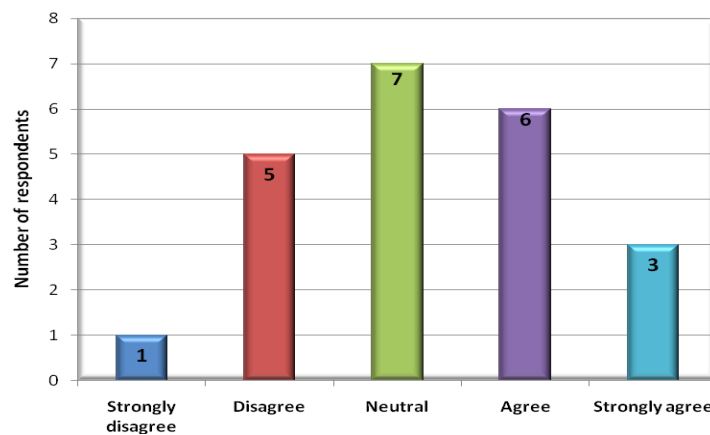


Figure 32 - We evaluate the reliability and accuracy of our sources of information (n=22)

The intention of question 3.3.6 was to find out if the respondents analyse their competitors and have up to date profiles of them. While Figure 33 visually distorted the results in favour of the negative responsive, and provided a mean of 3.23, with a high standard deviation of 1.020, which indicates that organisations do in fact to a certain extent analyse their competitors, it was further important to understand who the respondents were that disagreed. An analysis of the results sorted by employees indicated that organisations with less than 50 and 51 to 500 employees had a low mean score of 2.67 and 2.88 respectively, while organisations with more than 500 employees had a mean score of 4.00. The results evidently prove that larger organisations with more resources have a greater ability and possibly resources to maintain competitor profiles.

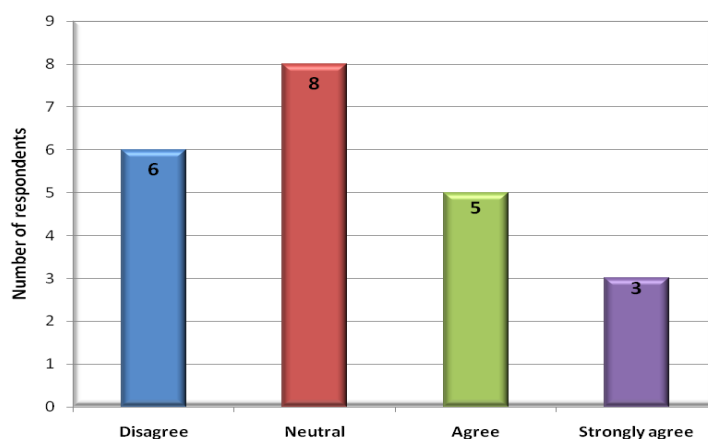


Figure 33 - We analyse our competitors and have up-to-date profiles of them (n=22)

Question 3.3.7 purpose was to ascertain to whether organisations are up to date with emerging technologies in their field of business and the benefits/features of these technologies. The results are shown in Figure 34. A mean score of 3.41, with a lower standard deviation of 0.959 indicate that there is a high level of awareness of emerging technologies within the organisations field of business, even though certain dissonance exists.

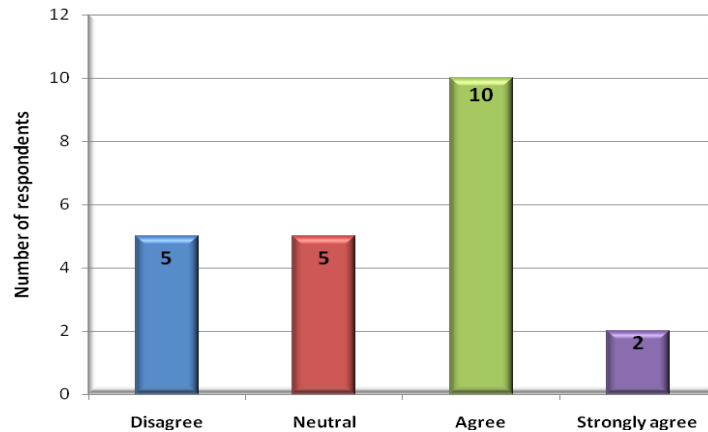


Figure 34 - We are up to date with emerging technologies in our field of business and the benefits/features of these technologies (n=22)

The South African long-term insurance industry is a highly regulated industry due to the nature of its products. Long-term insurers are required to comply with a variety of different legislations, which are dependent on the nature of the business in which they take part and the type of products sold by them (Office of the President, 1998; Van Niekerk, 1999).

It was therefore important to determine, through question 3.3.8, whether organisations are cognisant of new and pending government legislation and legislative trends that impact their organisation. Figure 35 clearly depicts a positive set of results, with a high mean score calculated as 4.59, and a low standard deviation of 0.666 indicating that the respondents were in agreement. The high mean score unambiguously proves the nature of the industry and that the organisations are consistently aware of their legal environment and obligations.

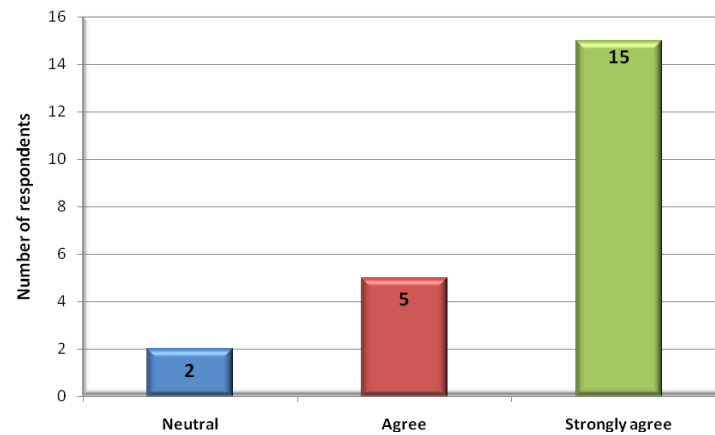


Figure 35 - Our organisation is cognisant of new and pending Government legislation and legislative trends that impact our organisation (n=22)

The aim of question 3.3.9 was to determine what, in the opinion of the respondents, were important sources for the collection of Competitive Intelligence Information. It is evident in Figure 36 that the analysis of competitor's products (86%), websites (86%), annual reports (77%) and research reports (72%) were the most important sources of Competitive Intelligence. Furthermore, the internet, industry periodicals, customers (59%) and to a certain extent the sales department (50%) were rated equally important as sources of Competitive Intelligence. Tradeshows, exhibitions and road shows were seen by 36% of the respondents as being an important source, but due to the nature of the industry, it is clear that distributors (18%) and suppliers (9%) are not valuable sources of information.

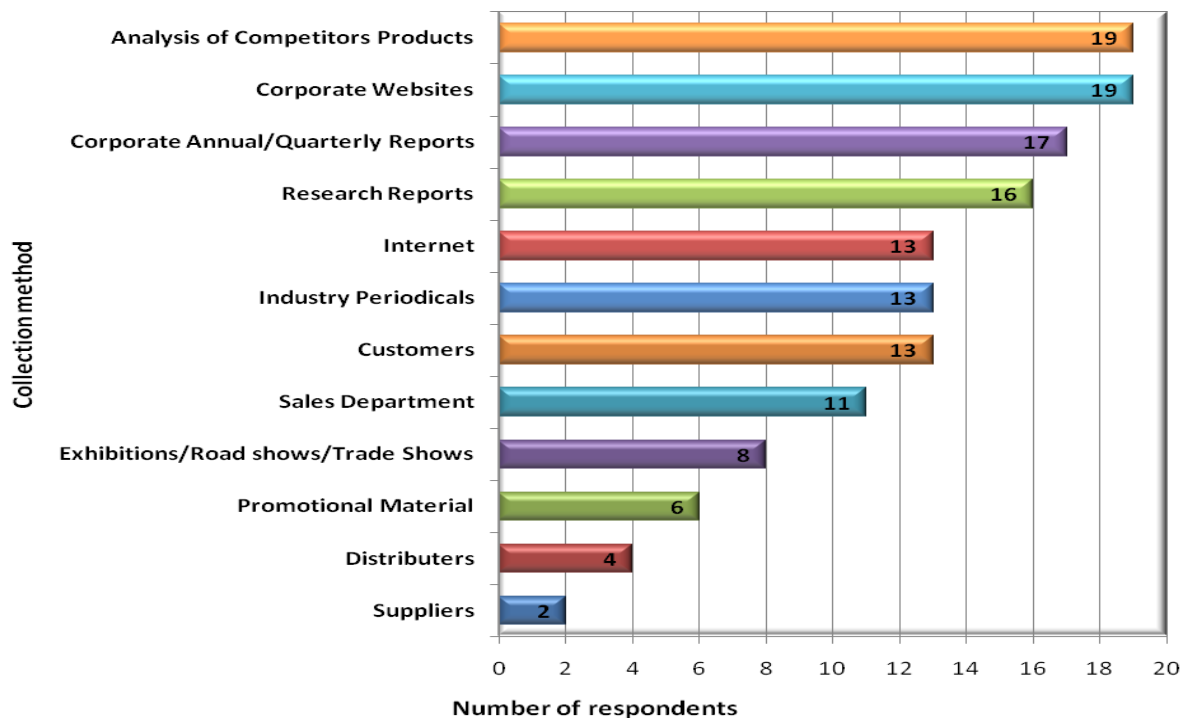


Figure 36 - Important sources for the collection of competitive intelligence (n=22)

As part of question 3.3.9, the opportunity was provided for respondents to supply any sources of intelligence that they thought were important, but were not listed in the questionnaire. The further sources provided include the media through news and research services (e.g. Dow Jones, Lexis Nexis), news aggregators such as Google and Google alerts, industry, people networking, market research assignments and the use of information from reinsurers as to the industry trends. The collection methods can clearly, as depicted in figure 36, be grouped. The first four methods can, due to their high use, be viewed as strategic in nature. The data collected using these strategic methods are vital components of the Strategic Intelligence that can be created for use in decision-making.

Question 3.3.10 then enquired as to which Analytical Methods or Models are used within the organisations to generate Competitive Intelligence. Figure 37 provides the breakdown of the respondent's results, with 82% of the respondents identifying SWOT Analysis and Competitor Analysis as the most commonly used methods in the Long-Term Insurance industry, with Customer Segmentation Analysis (72%), Industry Analysis (64%), Financial Analysis and Valuation (59%), Financial Ratio and Statement Analysis (45%) and Customer Value Analysis (45%) also ranking highly. While the rest of the methods were not ranked by many respondents it is important to note that the remaining methods were focused on providing greater in-depth

analysis of competitors and their intentions, and the future industry environment. This could provide the respondents who selected them with a competitive advantage. Furthermore, the analytical methods can now be grouped, indicating the most important methods. The first five analytical methods can now be viewed as strategic in nature, and are clearly used the most to analyse the data collected which can be developed into Strategic Intelligence.

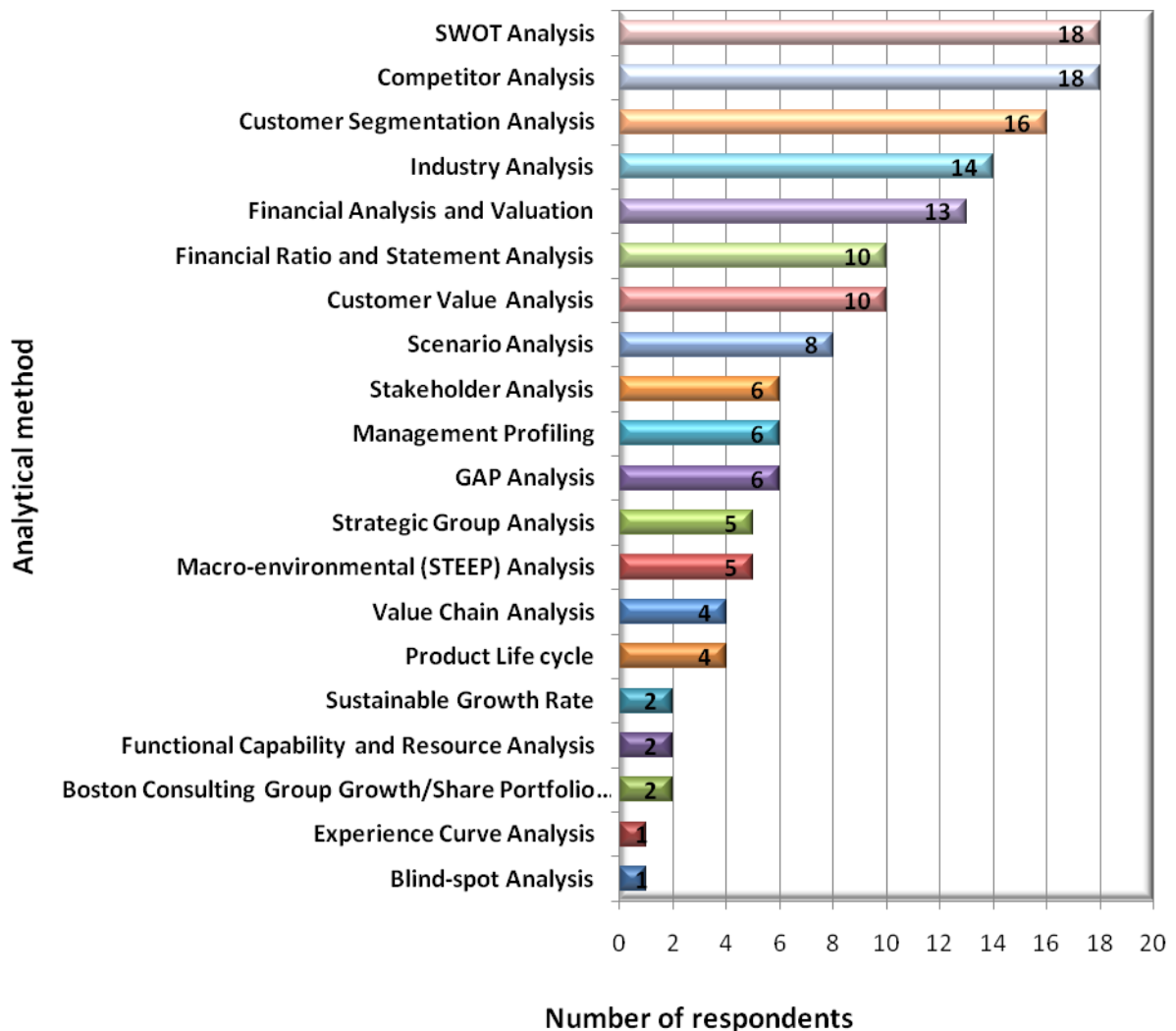


Figure 37 - Analytical methods or models used to generate competitive intelligence (n=22)

Once methods and models are used to generate relevant Competitive Intelligence, the intelligence needs to be provided to the correct decision makers in a timely fashion. The purpose of question 3.3.11 was to identify what methods are currently used to distribute and present intelligence findings, and the results are depicted in Figure 38. It is interesting to note that Email (77%) is the most prevalent distribution method for Competitive Intelligence, with presentations

(72%) following second and reports (64%) third. This compares well with the research done by West (2001) who identified the most appropriate options available as (West, 2001):

- the distribution of written reports,
- meetings and forums within which competitive intelligence is presented and discussed,
- E-mail.

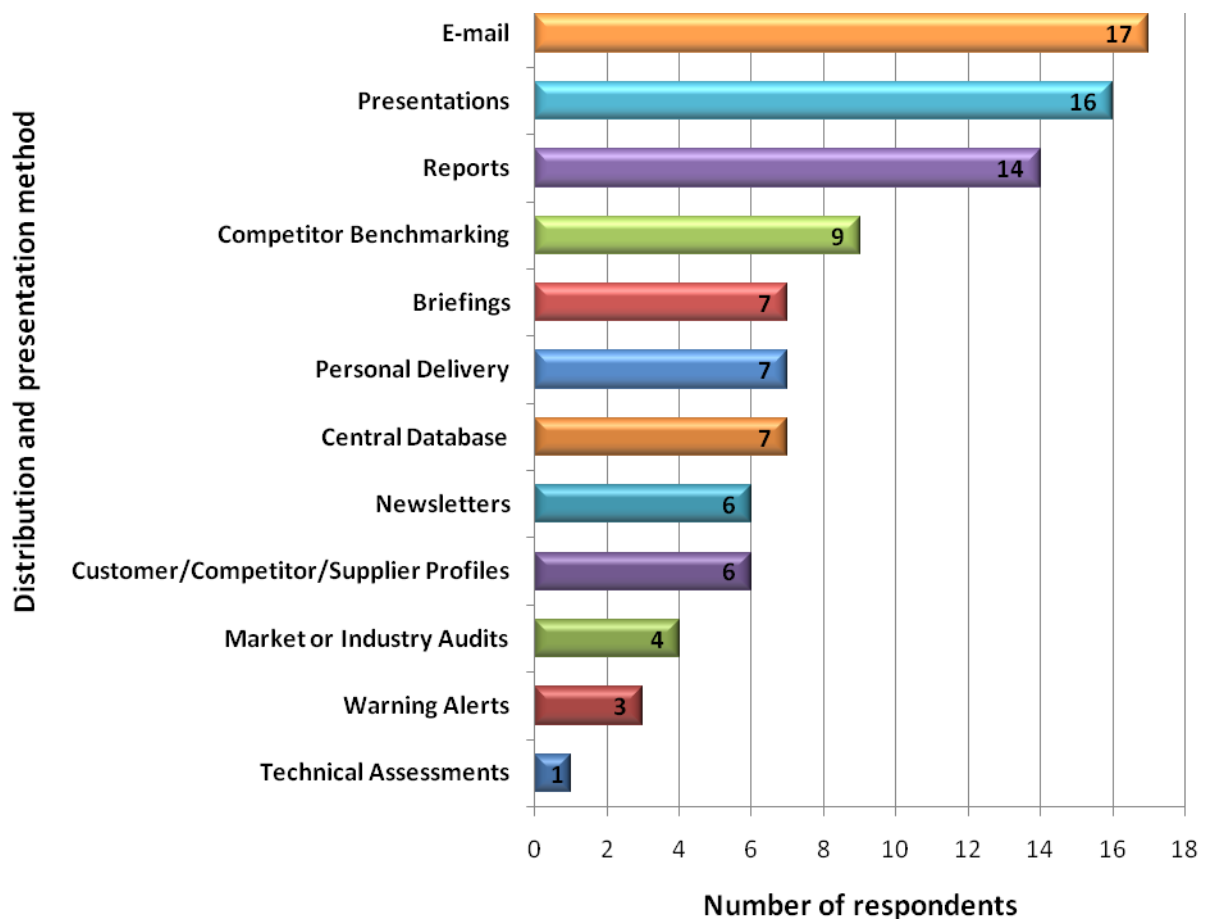


Figure 38 - Methods used to distribute and present intelligence findings (n=22)

Furthermore, it is interesting to note that Personal Delivery is a form used by several of the respondents, and that only seven of the respondents utilise a central database as a means of Competitive Intelligence distribution. It is important to stress that competitive intelligence forms a vital component, analysing the competitive environment, of Strategic Intelligence. While on its own, it can provide vital intelligence for decision-making, combined with business intelligence

and knowledge management can be merged to form Strategic Intelligence, vital for competitive advantage.

Question 3.3.12 purpose was to identify what Software Applications were used by the respondents to conduct, create, analyse or store Competitive Intelligence. 15 of the respondents indicated that they did not use any systems for Competitive Intelligence, while seven indicated they did use different systems. The responses for this question corroborate the results of question 3.3.11, where seven respondents indicated that they used a Central Database to distribute Intelligence. The responses to this question included the use of internally developed systems, the Microsoft suite of products including predominately SharePoint, the electronic storage of documents on servers, and a single respondent indicated their use of a software application named Goldmine.

5.5.2 Ranking Variables

With regard to the variables answered by the respondents, for section 2 - Competitive Intelligence, the tabulation of the overall mean and standard deviation results identify the variables that are considered as the most and least important by the respondents. All the variables are ranked in table 12 and table 13 below.

Table 12 illustrates the variables sorted by their mean scores. The ranking clearly illustrates that the majority of respondents agreed positively to all the questions, with the higher mean scores relating to being cognisant of government legislation, the use of external sources of information, and the use of competitive intelligence in decision-making. The lowest mean score, 2.59, was found for variable 3.3.1 which questioned whether the organisations had formal Competitive Intelligence functions.

Table 12 - Section 3 Variables sorted by Mean

SECTION 3: COMPETITIVE INTELLIGENCE			
Variable	Question	Mean	Std. deviation
3.3.8	Our organisation is cognisant of new and pending government legislation and legislative trends that impact our organisation.	4.59	0.666
3.3.4	Our organisation utilises external sources of information for market research (research companies).	3.91	1.109
3.3.2	Our organisation makes use of Competitive Intelligence in decision-making.	3.45	1.101
3.3.7	We are up to date with emerging technologies in our field of business and the benefits/features of these technologies.	3.41	0.959
3.3.5	We evaluate the reliability and accuracy of our sources of information.	3.23	1.110
3.3.6	We analyse our competitors and have up to date profiles of them.	3.23	1.020
3.3.3	Our Competitive Intelligence is created and distributed to management in a timely fashion.	3.00	1.195
3.3.1	Our organisation has a formal Competitive Intelligence function (which utilises a standardised Competitive Intelligence Process or framework).	2.59	1.368

Table 13 sorts the tabulated variables by their standard deviation scores, which depict the level of agreement between respondents. The highest standard deviation found for this section was for variable 3.3.1, and was 1.368, which coincidentally was the same variable with the lowest mean score. While the variable, 3.3.8, with the lowest standard deviation was found to have the greatest mean, there is no correlation between the mean and standard deviation rankings for the rest of the variables.

Table 13 - Section 3 Variables sorted by Standard Deviation

SECTION 3: COMPETITIVE INTELLIGENCE			
Variable	Question	Mean	Std. deviation
3.3.1	Our organisation has a formal Competitive Intelligence function (which utilises a standardised Competitive Intelligence Process or framework).	2.59	1.368
3.3.3	Our Competitive Intelligence is created and distributed to management in a timely fashion.	3.00	1.195
3.3.5	We evaluate the reliability and accuracy of our sources of information.	3.23	1.110
3.3.4	Our organisation utilises external sources of information for market research (research companies).	3.91	1.109
3.3.2	Our organisation makes use of Competitive Intelligence in decision-making.	3.45	1.101
3.3.6	We analyse our competitors and have up to date profiles of them.	3.23	1.020
3.3.7	We are up to date with emerging technologies in our field of business and the benefits/features of these technologies.	3.41	0.959
3.3.8	Our organisation is cognisant of new and pending government legislation and legislative trends that impact our organisation.	4.59	0.666

5.6 Knowledge Management

Companies are required to innovate or die. Their ability to learn, adapt and change have become a core competency for long term survival. Forces of technological change, globalisation and the now incumbent knowledge economy, has resulted in a revolution forcing organisations to seek new ways to reinvent themselves. To succeed in the global information society, organisations need to identify, create, value, and evolve their knowledge assets. With many authors arguing that knowledge has replaced capital and labour as the only meaningful economic resource in this new

economic society, it is clear that the management of knowledge has become the main competitive tool for many organisations (Rowley, 1999; Civi, 2000).

Based on the premise provided by the above paragraph, the fourth section of part 3 of the questionnaire was developed to gain an understanding of the Knowledge Management activities that the organisations in the Long-Term Insurance industry undertake. Based on this scope question 3.4.1 to 3.4.14 were developed to answer the following:

- Do organisations believe that Knowledge Management assists in creating value out of their organisations intangible assets?
- Do organisations view Knowledge as a strategic tool?
- Is the organisations organisational culture conducive to the sharing of knowledge?
- Do organisations benefit from the processes created to contribute knowledge?
- Is Knowledge and Intelligence contributed and accessed by employees by means of a central intelligence repository (which acts as a pool of corporate information)?
- Are Employees aware of the benefits of Business Intelligence and Competitive Intelligence?
- Are Employees personally responsible for the transfer and storage of knowledge in their area of speciality?
- Do Employees regularly report information they have found?
- Do organisations have the technical infrastructure to enable knowledge sharing?
- Do organisations have a document management system in place?
- Do organisations have a process in place for the conversion of individually held competence to systems, tools, or templates?
- Do organisations store Intellectual Capital?
- Do organisations conduct internal knowledge audits?
- What Software applications do organisations make use of as part of their Knowledge Management System?

The different questions in section 4, part 3 of the questionnaire will now be discussed.

5.6.1 Discussion of Results

The aim of question 3.4.1 was to determine if the respondents believe that Knowledge Management assists in creating value out of their organisations intangible assets. With a high mean score of 4.09, and a low standard deviation of 0.610, it is conclusive that the respondents concur to the belief that Knowledge Management does indeed create value out of intangible assets. The question's results are displayed in Figure 39.

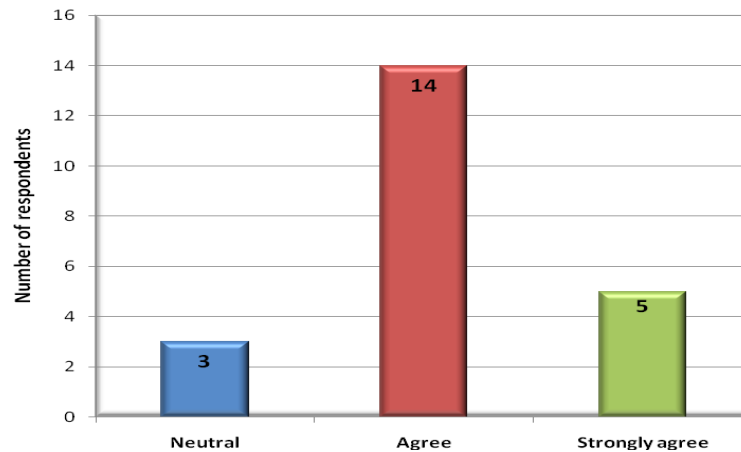


Figure 39 - We believe that Knowledge Management assists in creating value out of our organisations intangible assets (n=22)

Question 3.4.2 simply enquired as to whether the respondents viewed Knowledge as a strategic tool. With a high mean score of 4.14, and a low standard deviation of 0.710, it is conclusive that the respondents do concur as to viewing knowledge as a strategic tool. Figure 40 displays this result.

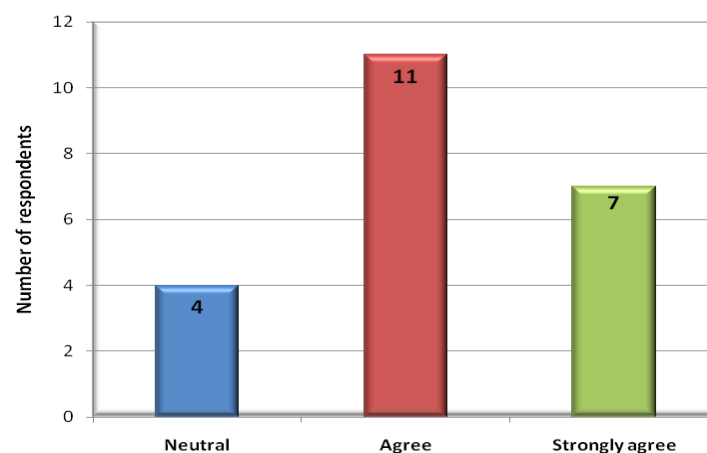


Figure 40 - We view Knowledge as a strategic tool (n=22)

However, the results of question 3.4.3 which sought to determine whether the respondent's organisational culture was conducive to the sharing of knowledge, was not as positive with a lower mean score of 3.32, and a higher standard deviation of 0.995. However, while the results were not as high as the previous two questions, it is clear that the majority of organisations do have an organisational culture that is at least conducive to an extent. The results are displayed in Figure 41.

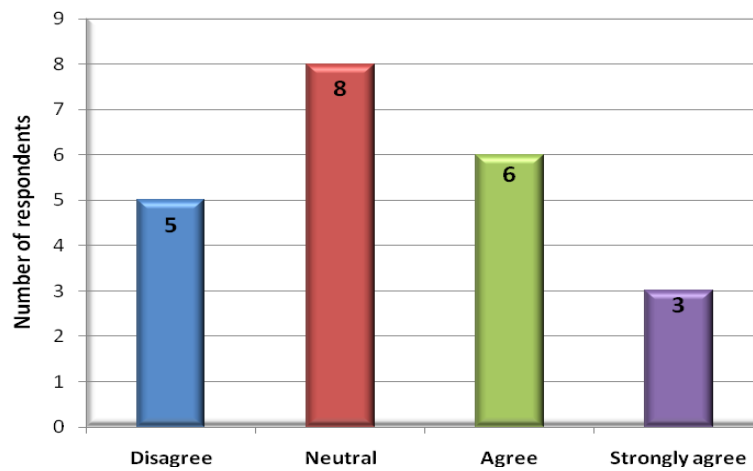


Figure 41 - Our organisational culture is conducive to the sharing of knowledge (n=22)

The purpose of question 3.4.4 was to determine if the respondents believe that their organisation benefits from the processes created to contribute knowledge. A mean score of 3.18 , with a standard deviation of 1.006 was calculated for the question with the results displayed in Figure 42. While a large proportion of the respondents chose to remain neutral in their response, a dissonance did occur, however, the mean indicates that overall the respondents believed that their respective organisations did indeed benefit from the processes created to contribute knowledge.

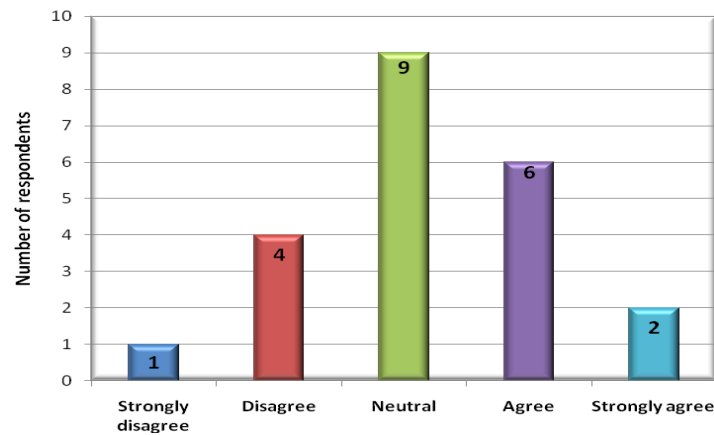


Figure 42 - Our organisation benefits from the processes created to contribute knowledge (n=22)

Question 3.4.5 purpose was to determine if Knowledge and Intelligence is contributed and accessed by employees by means of a central intelligence repository (which acts as a pool of corporate information) within the respondent's organisations. The results are displayed in Figure 43, and resulted in a mean score of 2.45, with a standard deviation of 1.101. With a high spread of opinion, the results clearly indicate that the majority of organisations concur that they did not have a central intelligence repository to which employees were able to contribute or access knowledge.

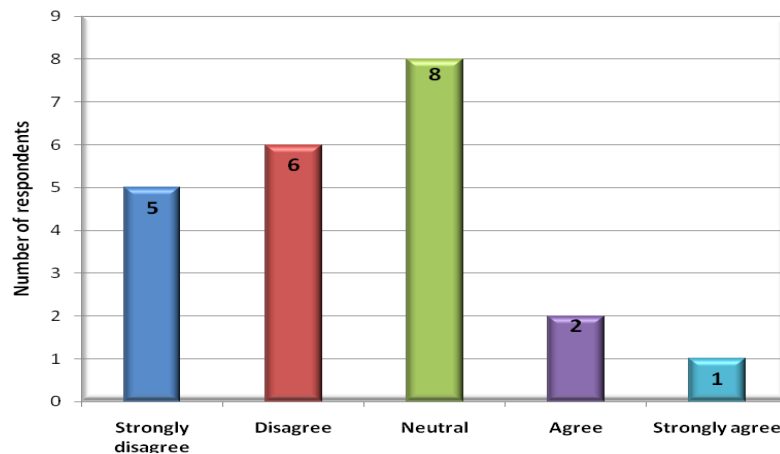


Figure 43 - Knowledge and Intelligence is contributed and accessed by employees by means of a central intelligence repository (n=22)

The aim of question 3.4.6 was to determine if employees were aware of the benefits of Business Intelligence and Competitive Intelligence, within the respondent's organisations. The results are depicted in Figure 44, and identify a mean of 2.64, and a standard deviation of 1.049. The results

visibly indicate that the majority of respondents did not agree with this statement, and therefore point towards a lack of internal education or marketing with regards to the benefits of Business and Competitive Intelligence.

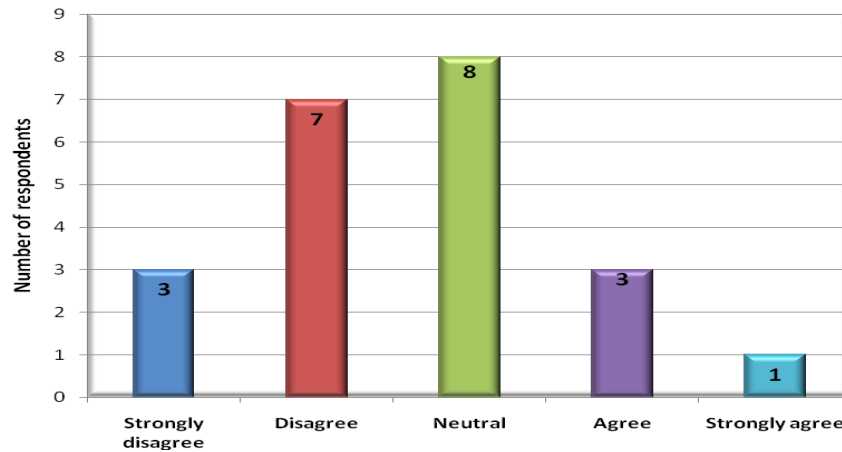


Figure 44 - Employees are aware of the benefits of Business Intelligence and Competitive Intelligence (n=22)

The aim of question 3.4.7 was to establish whether employees are personally responsible for the transfer and storage of knowledge in their area of speciality. The significance of this question would be that the most knowledgeable person would be responsible for the transfer their knowledge to the entire organisation, enabling the continuous growth of Intellectual Capital. The results of the question are displayed in Figure 45, and the mean score was determined to be 3.18, with a high standard deviation of 1.220. The results provide evidence that not all organisations require their employees to formally contribute their knowledge to the corporate intellectual capital; however a significant amount do, which could provide a competitive advantage to those organisations.

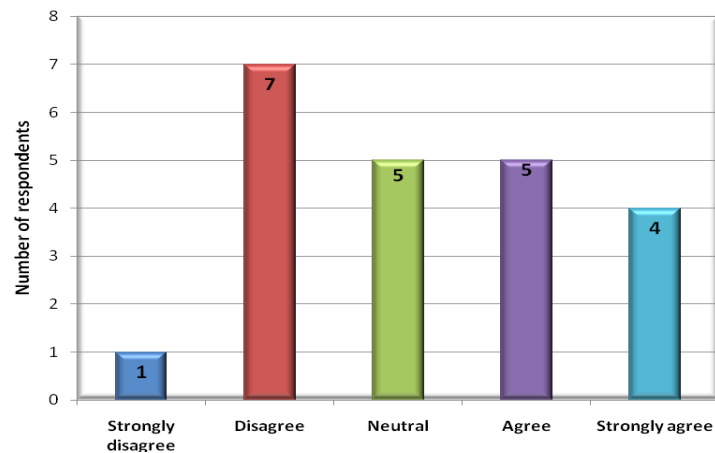


Figure 45 - Employees are personally responsible for the transfer and storage of knowledge in their area of speciality (n=22)

The purpose of question 3.4.8 was to build on the results of the previous question to determine whether employees regularly report information they have found. It is imperative for organisations who seek to gain a competitive advantage over their competitors to acknowledge and encourage the prompt dissemination of valuable information. The results determined a mean score of 3.09, and a standard deviation of 1.065, again displaying a large range of responses. The results are viewable in Figure 46. 31% of the respondents disagreed, while 31% remained neutral and 36% agreed to the question. It is clear from the results that there are a number of organisations that have an environment in which employees do not contribute regular information, which is discouraging as employees are often privy to valuable information, while those that do encourage contributions could find themselves with a competitive advantage.

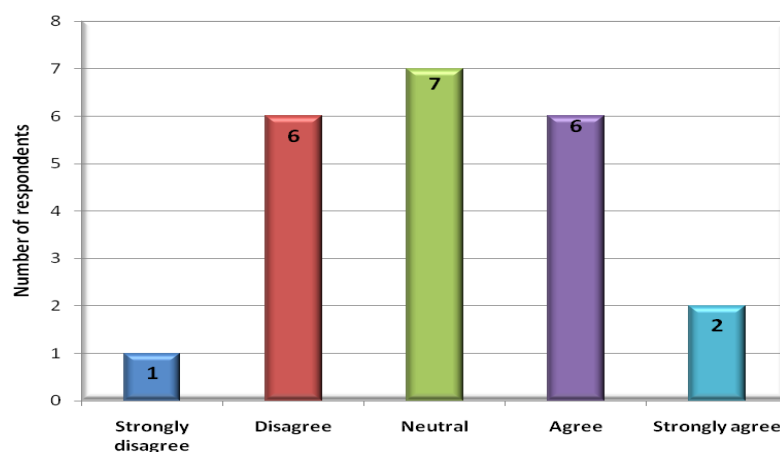


Figure 46 - Employees regularly report information they have found (n=22)

Imperative to the contribution of knowledge by employees, an organisation should provide a technical infrastructure to enable the sharing of knowledge. This was the focus of question 3.4.9 which aimed to ascertain whether organisations had the technical infrastructure to enable knowledge sharing. A mean of 2.77, with a high standard deviation of 1.307 indicate that almost an equal share of organisations have and do not have facilities available to their employees to enable the sharing of knowledge. Figure 47 depicts the results. It is important to note that an analysis of the results sorted by number of employees indicates that smaller organisations are the least likely to have access to the correct technical infrastructure.

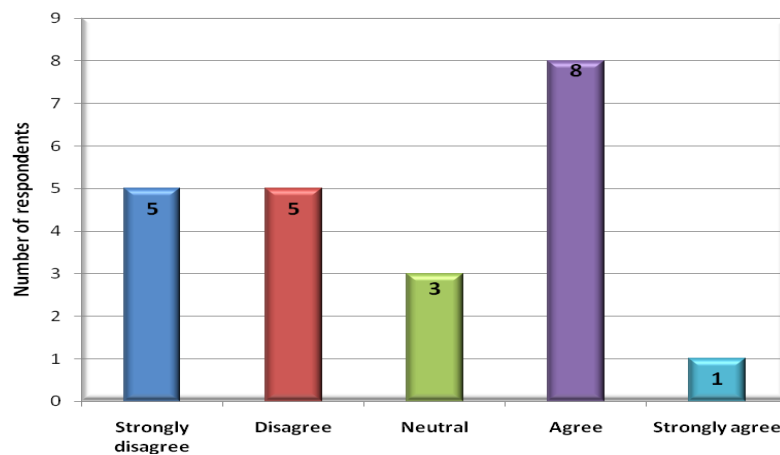


Figure 47 - Our organisation has the technical infrastructure to enable knowledge sharing (n=22)

The aim of question 3.4.10 was to determine if the organisations have a document management system in place. The results are shown in Figure 48, which indicate a mean of 2.82, with a standard deviation of 1.220. The results corroborate the results found in question 3.4.9 where we enquire whether organisations had the technical infrastructure to support knowledge sharing. Again, smaller organisations are least likely to have access to a document management system (mean = 1.50); however, the results indicate that not all larger organisations provide the access either (mean = 3.25), but predominately do so.

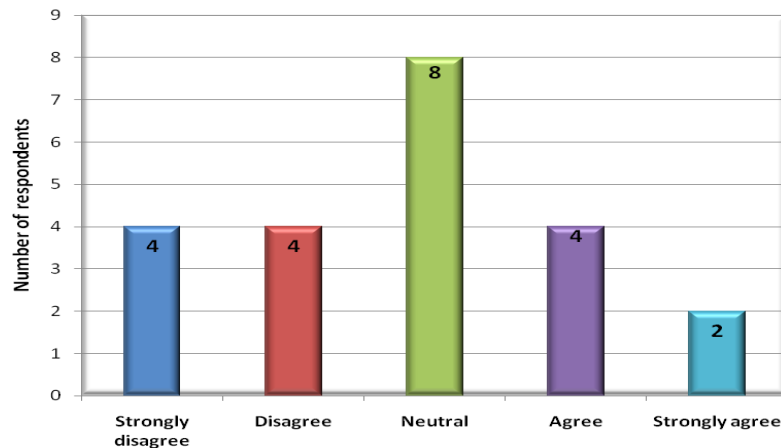


Figure 48 - Our organisation has a document management system in place (n=22)

The purpose of question 3.4.11 was to determine whether organisations had a process in place for the conversion of individually held competence to systems, tools, or templates. The results confirmed a mean of 2.36, and a high range of responses shown by the high standard deviation of 1.177, indicating that organisations do not predominantly have a process in place for the conversion of individually held competence to systems, tools, or templates, with a negative bias against smaller organisations (mean = 1.50) compared to larger ones (mean = 2.62). This information can be view in Figure 49.

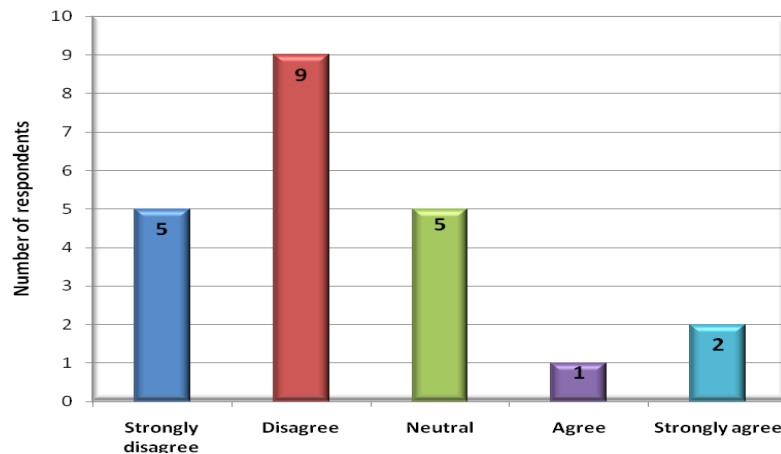


Figure 49 - We have a process in place for the conversion of individually held competence to systems, tools, or templates (n=22)

The aim of question 3.4.12 was simply to determine if the organisations store Intellectual Capital. A mean score of 2.73 and a high standard deviation of 1.120 were determined for this question.

The results indicate that again the majority of organisations do not store Intellectual Capital, with large organisations being the main beneficiaries. Results are shown in Figure 50.

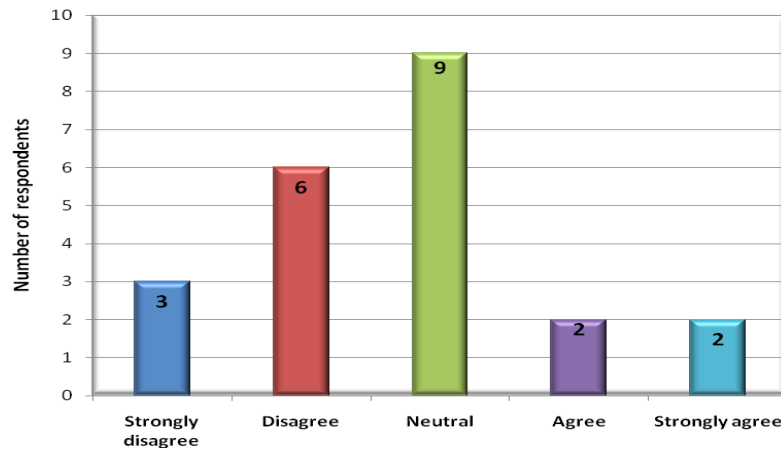


Figure 50 - Our organisation stores Intellectual Capital (n=22)

Question 3.4.13 served to identify whether organisations conduct internal knowledge audits (e.g. identify and catalogue what people know, what reports they have, publications). The results provided a mean score of 2.14, and a high standard deviation of 1.246 which conclusively illustrates that the majority of organisations do not conduct internal knowledge audits. The information can be viewed in Figure 51.

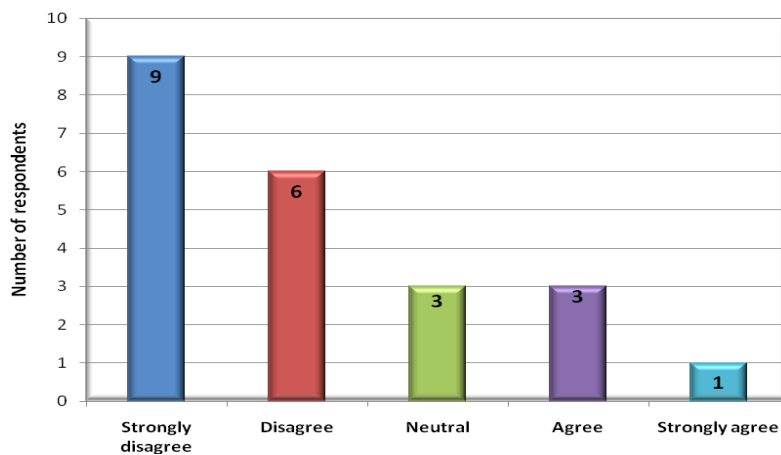


Figure 51 - We conduct an internal knowledge audit (n=22)

The purpose of question 3.4.14 was to identify what Software applications organisations make use of as part of their Knowledge Management System. With the results relatively negative in the previous questions it is no surprise that the majority of respondents indicated that they did not make use of any software applications. However, a number of respondents did indicate that they

made use of in house data stores such as a central file repository on the corporate intranet, Microsoft SharePoint Portal, and in house systems to store and manage knowledge. A respondent provided detailed information explaining that their Operational knowledge, lessons learnt, and technical knowledge are captured in Content manager, and Microsoft applications. Furthermore, they made use of bodies and structures such as Community of Practice, online learning tools and forums as their Knowledge Management toolkit.

Another respondent from a large organisation explained that they did not yet have a centralised approach across their entire organisation, however, individual departments made use of extensive knowledge management practices which were conducted and managed successfully.

5.6.2 Ranking Variables

With regard to the variables answered by the respondents, for section 4 – Knowledge Management, the tabulation of the overall mean and standard deviation results identify the variables that are considered as the most and least important by the respondents. All the variables are ranked in table 14 and table 15 below.

Table 14 illustrates the variables sorted by their mean scores. The ranking clearly illustrates that the majority of respondents agreed positively to variables 3.4.1 and 3.4.2, the rest of the questions had more mediocre results with the majority having a mean in the range between 2 and 3, indicating a lack of consensus among respondents. The questions that fared the worst were directly related to the organisations storage, use and dissemination of knowledge. It is interesting to note that respondents often agree with the textbook theory explaining what should be done but in reality do not exercise this knowledge.

Table 14 - Section 4 Variables sorted by Mean

SECTION 4: KNOWLEDGE MANAGEMENT			
Variable	Question	Mean	Std. deviation
3.4.2	We view Knowledge as a strategic tool.	4.14	0.710
3.4.1	We believe that Knowledge Management assists in creating value out of our organisations intangible assets.	4.09	0.610
3.4.3	Our organisational culture is conducive to the sharing of knowledge.	3.32	0.995

3.4.4	Our organisation benefits from the processes created to contribute knowledge.	3.18	1.006
3.4.7	Employees are personally responsible for the transfer and storage of knowledge in their area of speciality.	3.18	1.220
3.4.8	Employees regularly report information they have found.	3.09	1.065
3.4.10	Our organisation has a document management system in place.	2.82	1.220
3.4.9	Our organisation has the technical infrastructure to enable knowledge sharing.	2.77	1.307
3.4.12	Our organisation stores Intellectual Capital.	2.73	1.120
3.4.6	Employees are aware of the benefits of Business Intelligence and Competitive Intelligence.	2.64	1.049
3.4.5	Knowledge and Intelligence is contributed and accessed by employees by means of a central intelligence repository (which acts as a pool of corporate information).	2.45	1.101
3.4.11	We have a process in place for the conversion of individually held competence to systems, tools, or templates.	2.36	1.177
3.4.13	We conduct an internal knowledge audit (e.g. identify and catalogue what people know, what reports they have, publications).	2.14	1.246

Table 15 sorts the tabulated variables by their standard deviation scores, which depict the level of agreement between respondents and the range of responses. The highest standard deviation found for this section was for variable 3.4.9, and was 1.307. Interestingly, 10 of the variables had a standard deviation of greater than 1.000 indicating an extremely high range of responses for this section, with the variable with the lowest standard deviation indicating the respondent's belief in the value that Knowledge Management can create out of their organisations intangible assets.

Table 15 - Section 4 Variables sorted by Standard Deviation

SECTION 4: KNOWLEDGE MANAGEMENT			
Variable	Question	Mean	Std. deviation
3.4.9	Our organisation has the technical infrastructure to enable knowledge sharing.	2.77	1.307
3.4.13	We conduct an internal knowledge audit (e.g. identify and catalogue what people know, what reports they have, publications).	2.14	1.246
3.4.7	Employees are personally responsible for the transfer and storage of knowledge in their area of speciality.	3.18	1.220
3.4.10	Our organisation has a document management system in place.	2.82	1.220
3.4.11	We have a process in place for the conversion of individually held competence to systems, tools, or templates.	2.36	1.177
3.4.12	Our organisation stores Intellectual Capital.	2.73	1.120
3.4.5	Knowledge and Intelligence is contributed and accessed by employees by means of a central intelligence repository (which acts as a pool of corporate information).	2.45	1.101
3.4.8	Employees regularly report information they have found.	3.09	1.065
3.4.6	Employees are aware of the benefits of Business Intelligence and Competitive Intelligence.	2.64	1.049
3.4.4	Our organisation benefits from the processes created to contribute knowledge.	3.18	1.006
3.4.3	Our organisational culture is conducive to the sharing of knowledge.	3.32	0.995
3.4.2	We view Knowledge as a strategic tool.	4.14	0.710
3.4.1	We believe that Knowledge Management assists in creating value out of our organisations intangible assets.	4.09	0.610

5.7 Strategic Intelligence

An organisation needs to know about its business environment (its activities, resources, markets, customers, products, services, and costs) to plan for its current and future success. This knowledge, which could allow for the organisation's successful functioning needs to be disseminated organisation-wide. This results in one of the basic challenges for senior management which is how to create a mindset about the present and the future in order to anticipate trends and the directions to be taken (Tham *et al*, 2002).

Strategic Intelligence can be identified as what a company needs to know of its business environment to enable it to gain insight into its present processes, anticipate and manage change for the future, design appropriate strategies that will create business value for customers, and improve profitability in current and new markets (Tham *et al*, 2002).

Strategic Intelligence consists of the aggregation of the various types of intelligentsia, which creates a synergy between Business Intelligence, Competitive Intelligence, and Knowledge Management to provide value-added information and knowledge toward making organisational strategic decisions. Strategic Intelligence signifies the creation and transformation of information or knowledge that can be used in high-level decision-making. The emphasis is on how best to position the organisation to deal with future challenges and opportunities to maximise the organisation's success (Liebowitz, 2006a).

With this milieu in mind, section five of part 3 was developed to gain an understanding of the Strategic Intelligence activities that take place within organisations. Based on this scope question 3.5.1 to 3.5.26 where developed to answer the following:

- Whether the respondents have a Strategic Intelligence process in place?
- Whether the respondents consolidate all their Intelligence into a single Intelligence repository?
- Whether the respondents fuse their Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making?
- Whether the respondents believe that Strategic Intelligence, as a collective, provides better information input to decision makers?
- Whether the respondents have a long-term Strategic Intelligence plan?

- Whether Strategic Intelligence is used at all levels of decision-making?
- Whether Managers use Strategic Intelligence in their strategic planning and decision-making?
- Whether Strategic Intelligence assists managers forge better, fact-based decisions?
- Whether Strategic Intelligence engages managers in the Strategy development process?
- Whether Strategic Intelligence can assist managers to quantify / qualify strategic choices and articulate strategies?
- Whether Key Decision makers are surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs?
- Whether Strategic Intelligence forms part of the respondents Performance Appraisal review process?
- Whether Strategic Intelligence can sharpen internal performance monitoring?
- Whether Strategic Intelligence is a continuous activity in the respondent's organisation?
- Whether organisations have dedicated human resources to maintain their Strategic Intelligence function or process?
- Whether the respondents would consider outsourcing their Strategic Intelligence function?
- Whether the respondents Strategic Intelligence requirements are linked to their strategic objectives and their long term goals?
- Whether the use of Strategic Intelligence leads to competitive advantage and innovation?
- Whether Strategic Intelligence enhances decision-making?
- Whether Strategic Intelligence plays a critical role in the Strategic Management Process?
- When Strategic Intelligence is used by the organisations?
- To what extent do organisations use Strategic Intelligence as an input to decision-making?
- What impact the use of Strategic Intelligence has on the different managerial levels of an organisation?
- Whether the respondents believe further research should be conducted to identify better methods of implementing Strategic Intelligence?
- Whether organisations make use of any Strategic Intelligence Software Applications or methods/models?

The different questions in section 5, part 3 of the questionnaire will now be discussed.

5.7.1 Discussion of Results

The aim of question 3.5.1 was to establish whether the organisations have a Strategic Intelligence process in place. Research has indicated that the use of a Strategic Intelligence process can greatly enhance the Strategic Decision-making capabilities of organisations which could lead to competitive advantage. The result for this question is shown in Figure 52, which resulted in a mean score of 3.05, with a standard deviation of 1.046. The mean score clearly indicates that many organisations do in fact have a Strategic Intelligence process in place, but further exploration of the large standard deviation indicates that a clear distinction can be drawn between organisations with less than 50 employees (mean = 2.50) and larger organisations (mean = 3.50).

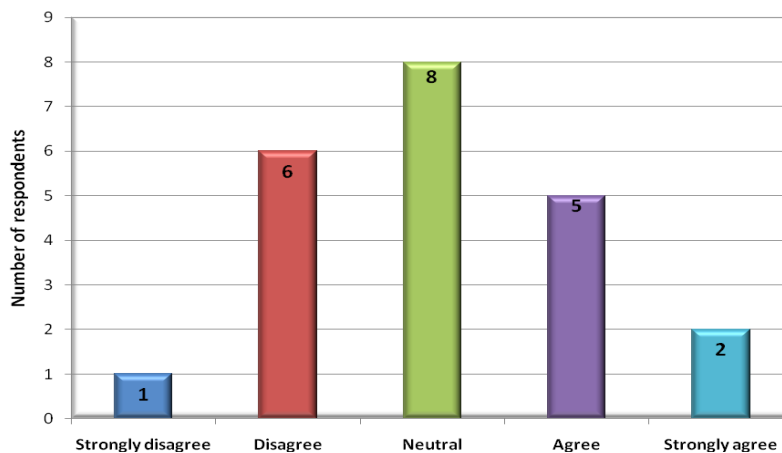


Figure 52 - Our organisation has a Strategic Intelligence process in place (n=22)

Question 3.5.2 queried the respondents as to whether their organisation consolidates all their Intelligence into a single Intelligence repository. A low mean of 2.27, with a high standard deviation of 1.162 showing a range of responses, signify that organisations do not, on average, consolidate their Intelligence into a single Intelligence repository. Results are shown in Figure 53.

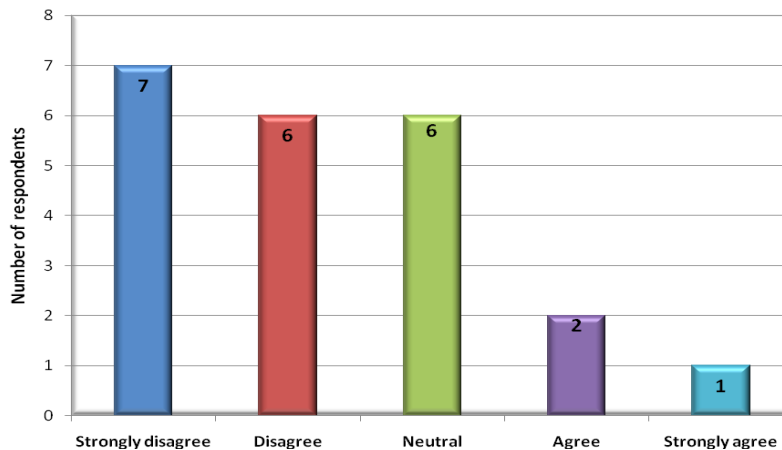


Figure 53 - Our organisation consolidates all our Intelligence into a single Intelligence repository (n=22)

The purpose of question 3.5.3 was to ascertain if the respondents fuse their Business Intelligence, Competitive Intelligence and Knowledge Management (to create Strategic Intelligence) for use in decision-making. The mean score found for this question was 2.50, with a high standard deviation of 1.102, verifies that the majority of organisations do not fuse their intelligence. Only 13.6% of respondents replied that they did in fact fuse their intelligence. The results are displayed in figure 54.

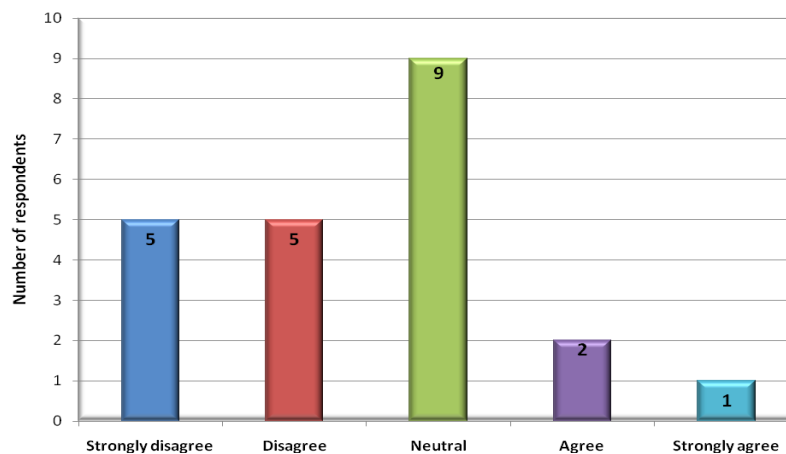


Figure 54 - We fuse our Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making (n=22)

The purpose of question 3.5.4 was to verify whether respondents believe that Strategic Intelligence, as a collective, provides better information input to decision makers. The results shown in Figure 55 provide a mean score of 3.95, with a low standard deviation of 0.785. The

results confirm that Strategic Intelligence provides better information input to decision makers, and the low standard deviation indicates a high number of respondents concurred.

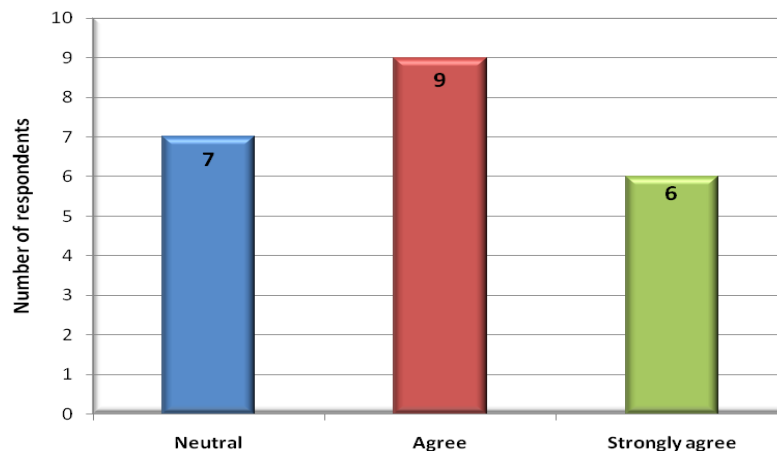


Figure 55 - We believe that Strategic Intelligence, as a collective, provides better information input to decision makers (n=22)

Question 3.5.5 purpose was to determine whether all Intelligence gathered is checked for accuracy. The low mean score of 2.68, with a high standard deviation of 1.249 showing a large number of different responses, provide evidence that not all Intelligence gathered is checked for accuracy. This result, shown in Figure 56, could result in incorrect or bad decisions being made by management if the Intelligence the decisions are based on is found to be incorrect.

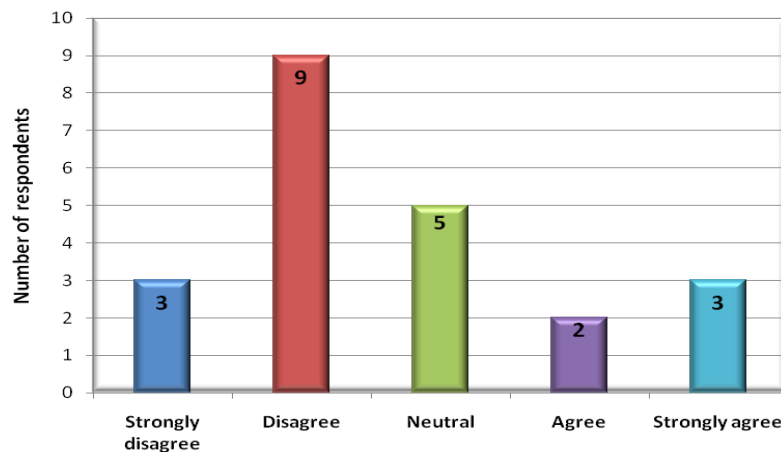


Figure 56 - All Intelligence is checked for accuracy (n=22)

The aim of question 3.5.6 was to establish whether the respondents had a long-term Strategic Intelligence plan. The mean score of 2.82, with a very high standard deviation of 1.296 provide confirmation that not all organisations had a Strategic Intelligence plan. 50% of the respondents

disagreed with the statement, while only 31% agreed that they had a Strategic Intelligence plan. Results are visible in Figure 57.

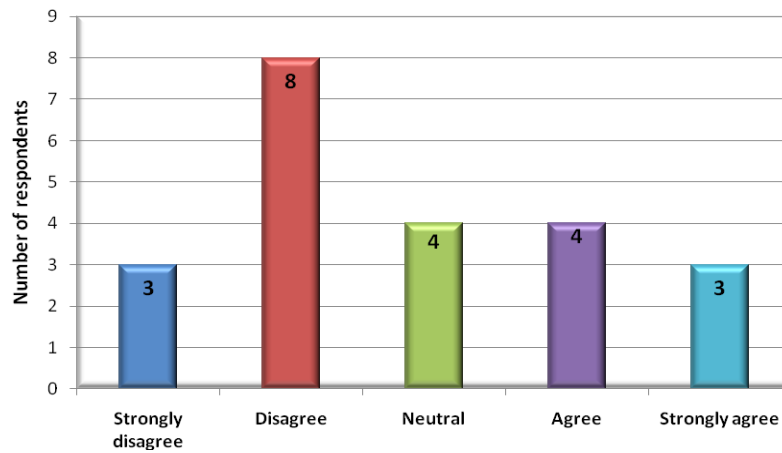


Figure 57 - We have a long-term Strategic Intelligence plan (n=22)

Question 3.5.7 questioned whether organisations made use of Strategic Intelligence at all levels of decision-making. A mean score of 2.73, with a high standard deviation of 1.120 showing a range of responses were found, provide insight to the decision-making activities within organisations. While the result is above average, closer inspection of the results in Figure 58 visually indicate that a large proportion of respondents do not make use of Strategic Intelligence at all levels of decision-making, while only 27% of the respondents do.

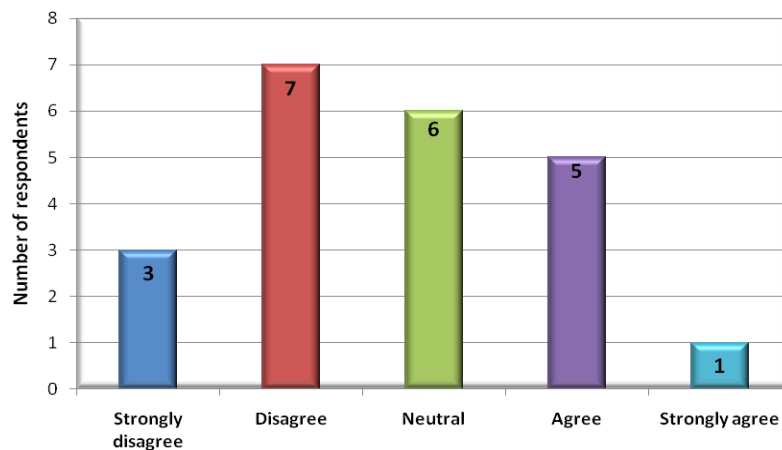


Figure 58 - We use Strategic Intelligence at all levels of decision-making (n=22)

The purpose of question 3.5.8 was to verify whether managers use Strategic Intelligence in their strategic planning and decision-making. A mean score of 2.86, with a high standard deviation of 1.207 indicate an equal spread in terms of the respondent's answers. An equal amount of

respondents disagreed and agreed to the statement, however, the above average mean indicates that there is growing proportion of managers who do use Strategic Intelligence in planning and decision-making. Results are shown in figure 59.

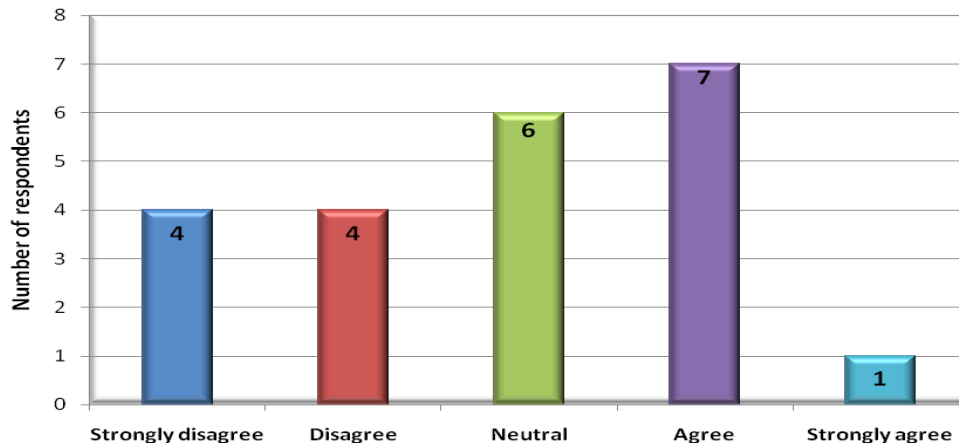


Figure 59 - Managers use Strategic Intelligence in their strategic planning and decision-making (n=22)

Question 3.5.9 focus was to try and discover whether organisations believe Strategic Intelligence assists managers forge better, fact-based decisions. The question found a very positive response with 68% of respondents agreeing with the statement. The mean score of 3.91, with a low standard deviation of 0.750, clearly indicate that the majority of respondents believed that Strategic Intelligence assists managers forge better, fact-based decisions. The results appear in Figure 60.

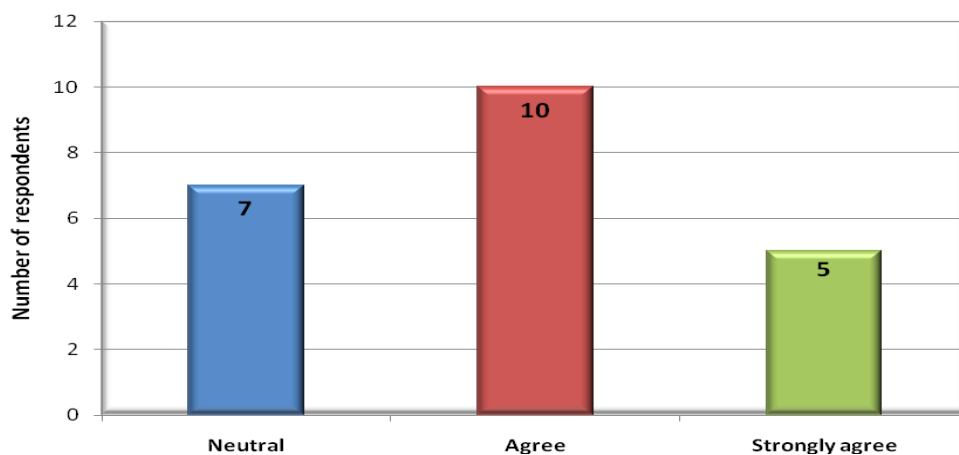


Figure 60 - We believe Strategic Intelligence assists managers forge better, fact-based decisions (n=22)

Furthermore, question 3.5.10 enquired whether Strategic Intelligence engages managers in the Strategy development process within the organisations. A mean of 3.64, with a standard deviation of 1.293 indicated that the breadth of responses were high, however the majority of respondents felt that Strategic Intelligence did in fact engage managers in the Strategy development process. Figure 61 depict these results.

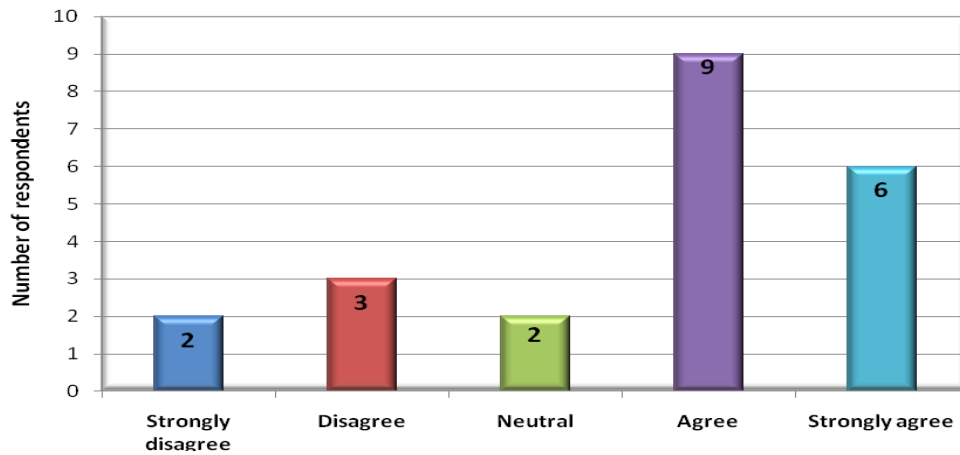


Figure 61 - Strategic Intelligence engages managers in the Strategy development process (n=22)

Question 3.5.11 tried to determine whether Strategic Intelligence can assist managers to quantify/qualify strategic choices and articulate strategies. A high mean of 3.73, and a high standard deviation of 1.032, prove that consensus amongst the respondents was that Strategic Intelligence does assist managers to quantify/qualify strategic choices and articulate strategies. Figure 62 depicts the discussed results.

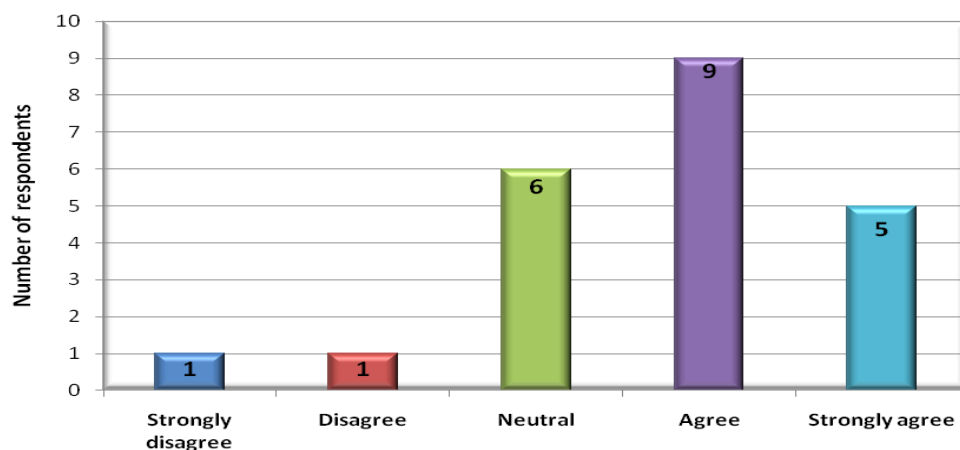


Figure 62 - Strategic Intelligence can assist managers to quantify/qualify strategic choices and articulate strategies (n=22)

The purpose of question 3.5.12 was to find out whether Key Decision makers are surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs. If intelligence is produced, but does not meet the requirements of those key individuals that will utilise the information, no value is added through its production. Figure 63 depicted the results for this question, which produced a mean of 2.41, with a standard deviation of 1.098. The results prove that while a certain number of respondents do agree with the statement, the majority disagreed, which confirms that key decision makers are not questioned about their needs and requirements.

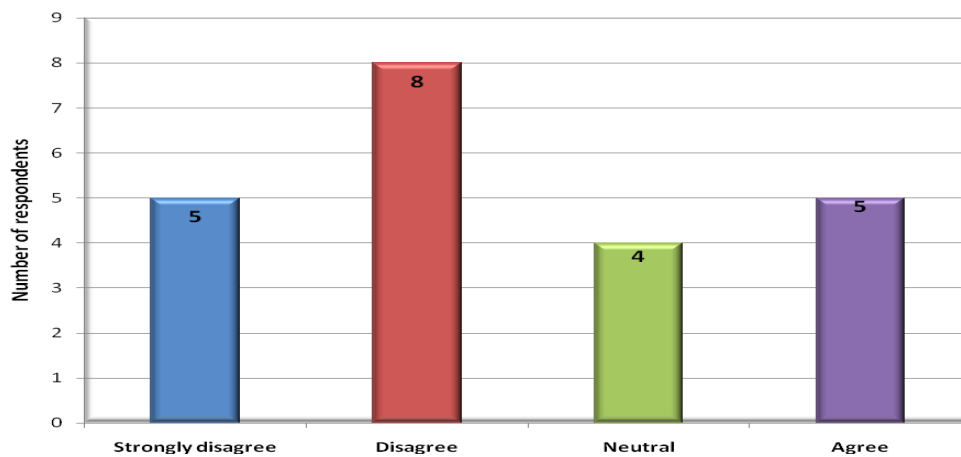


Figure 63 - Key Decision makers are surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs (n=22)

The aim of question 3.5.13 was to determine whether Strategic Intelligence forms part of the organisations Performance Appraisal review process. By including Strategic Intelligence as part of the review process employees are rewarded for their contributions, and a culture of knowledge sharing is entrenched in the organisation (Marchand *et al.*, 2007). The extremely low mean score of 1.68, and low standard deviation of 0.894, indicate that respondents concurred that organisations do not include Strategic Intelligence as part of their performance appraisal review process. It was encouraging that a medium sized organisation agreed with the statement, which could provide it with a competitive advantage into the future. Results are depicted in Figure 64.

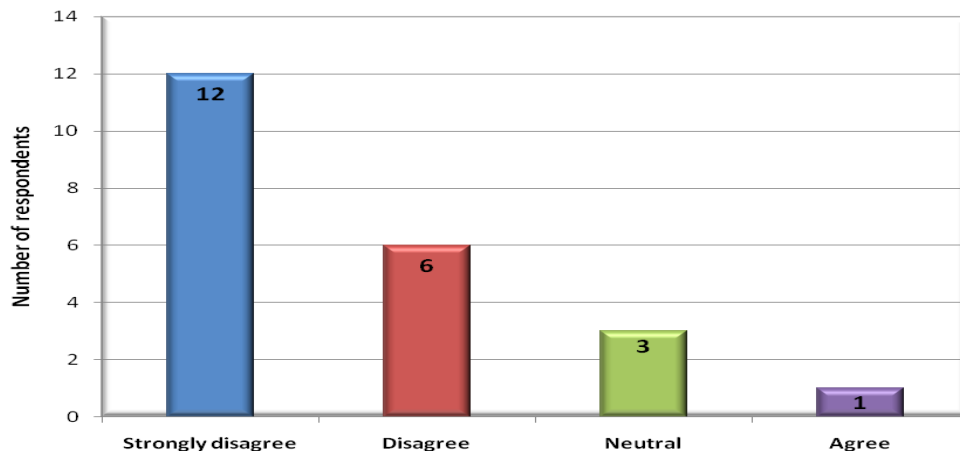


Figure 64 - Strategic Intelligence forms part of our Performance Appraisal review process (n=22)

Question 3.5.14 aim was to ascertain whether the organisations believed that Strategic Intelligence can sharpen internal performance monitoring. A mean score of 3.45, with a high standard deviation of 1.101, depicted in Figure 65, affirmed that organisations believed that Strategic Intelligence may well sharpen internal performance monitoring.

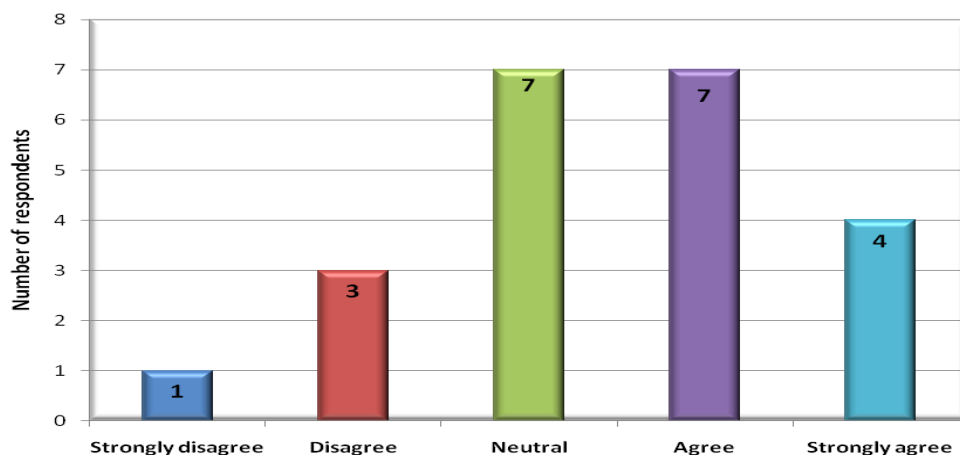


Figure 65 - Strategic Intelligence can sharpen internal performance monitoring (n=22)

Question 3.5.15 enquired whether Strategic Intelligence is a continuous activity in the organisations surveyed. The results depicted in Figure 66, provide an alarming picture of how many respondents disagreed with this statement. A mean score of 2.23, with a high standard deviation of 1.110 substantiate this result and clearly indicate that many organisations do not perform Strategic Intelligence as a continuous activity.

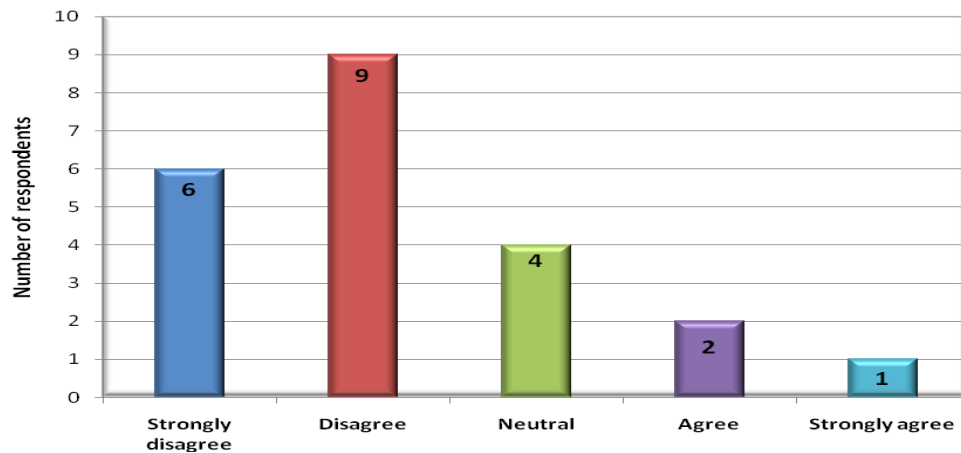


Figure 66 - Strategic Intelligence is a continuous activity in our organisation (n=22)

Based on the results of the previous question, the results of question 3.5.16 which attempted to ascertain whether the respondents had dedicated human resources to maintain our Strategic Intelligence function or process were not surprising. Figure 67 depicts the results of this question, with a mean score of 2.23, and a high standard deviation of 1.193 provide confirmation that many organisations do not have dedicated resources to maintain Strategic Intelligence processes.

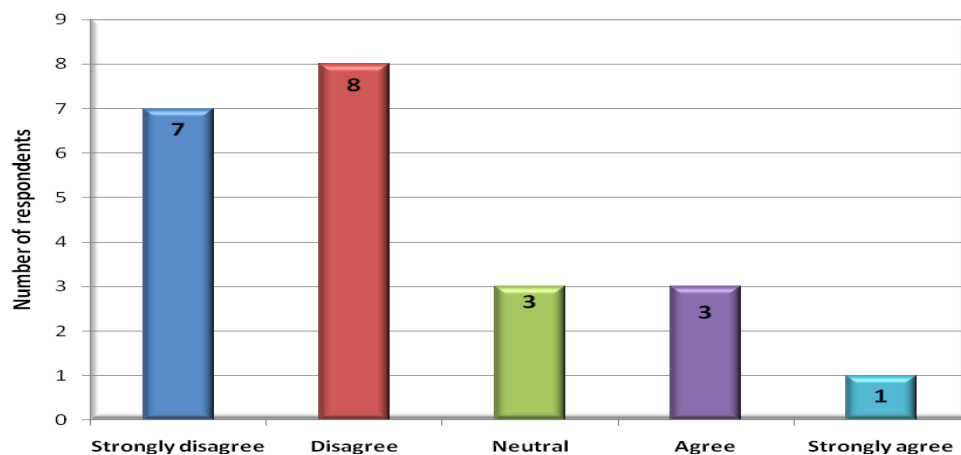


Figure 67 - Our organisation has dedicated human resources to maintain our Strategic Intelligence function or process (n=22)

The purpose of question 3.5.17 was to enquire whether organisations would consider outsourcing their Strategic Intelligence function. Figure 68 depicts the results of the question. The mean score of 2.36, and standard deviation of 1.002, show that a high number of organisations would not consider outsourcing their Strategic Intelligence.

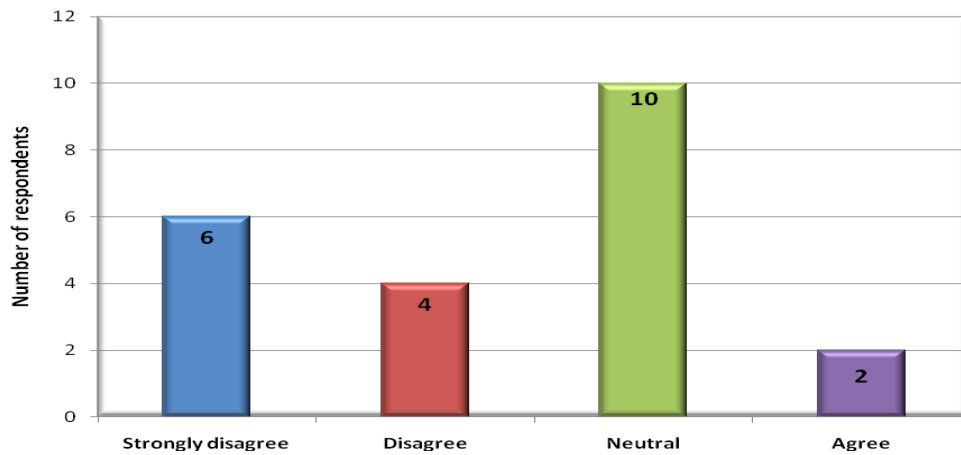


Figure 68 - We would consider outsourcing our Strategic Intelligence function (n=22)

The intention of question 3.5.18 was to verify whether organisations Strategic Intelligence requirements are linked to their strategic objectives and their long term goals. A mean of 3.09, and standard deviation of 1.109, depicted in Figure 69, provide an indication that the majority of organisations do in fact have their Strategic Intelligence requirements linked to their strategic objectives, even though a large range of responses were gathered.

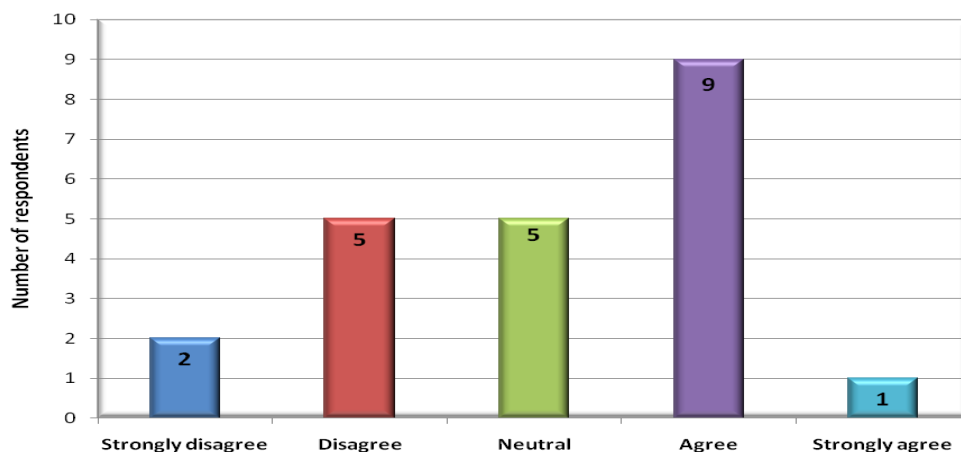


Figure 69 - Our Strategic Intelligence requirements are linked to our strategic objectives and our long term goals (n=22)

Question 3.5.19 gained insight into the organisations internal attitude by questioning whether they believed that the use of Strategic Intelligence leads to competitive advantage and innovation. The results illustrated in Figure 70, with a mean of 3.77, and lower standard deviation of 0.973, definitely prove that the majority of organisations agreed that the use of Strategic Intelligence leads to competitive advantage and innovation.

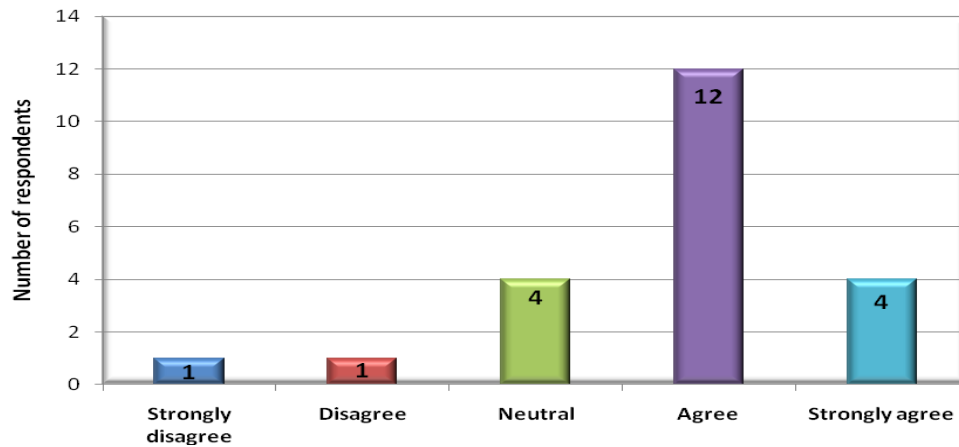


Figure 70 - The use of Strategic Intelligence leads to competitive advantage and innovation (n=22)

Furthermore, question 3.5.20 aim was to establish whether organisations believed that Strategic Intelligence enhances decision-making. An overwhelming majority agreed with this statement, with a mean score of 3.95, and standard deviation of 0.844. The results are shown in Figure 71.

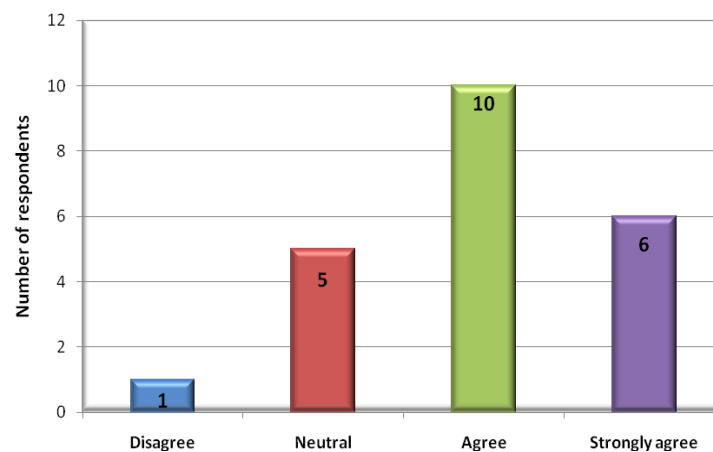
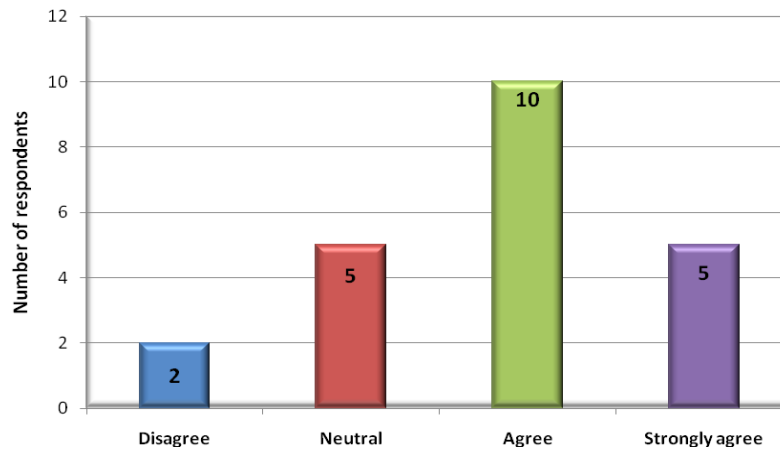


Figure 71 - Strategic Intelligence enhances decision-making (n=22)

The aim of question 3.5.21 was to find out whether Strategic Intelligence plays a critical role in the Strategic Management Process. A high mean of 3.82, and low standard deviation of 0.907, depicted in Figure 72, provides confirmation that Strategic Intelligence does in fact play a critical role in the Strategic Management Process.



**Figure 72 - Strategic Intelligence plays a critical role in the Strategic Management Process
(n=22)**

The focus of question 3.5.22 was to allow the respondents to indicate when Strategic Intelligence is used by their organisation. It was interesting to note that Strategic Intelligence was most commonly used:

- During New Product Development (95%)
- When considering Competitive Advantage (68%)
- When determining Pricing Strategies (64%)
- When considering Market Entry Strategies (64%)

Furthermore, a number of respondents indicated that they used Strategic Intelligence as part of Early Warning Systems (46%), and Key Account Management (36%). A single respondent indicated that they made use of Strategic Intelligence when deciding on Distribution Channels. The results are depicted in Figure 73.

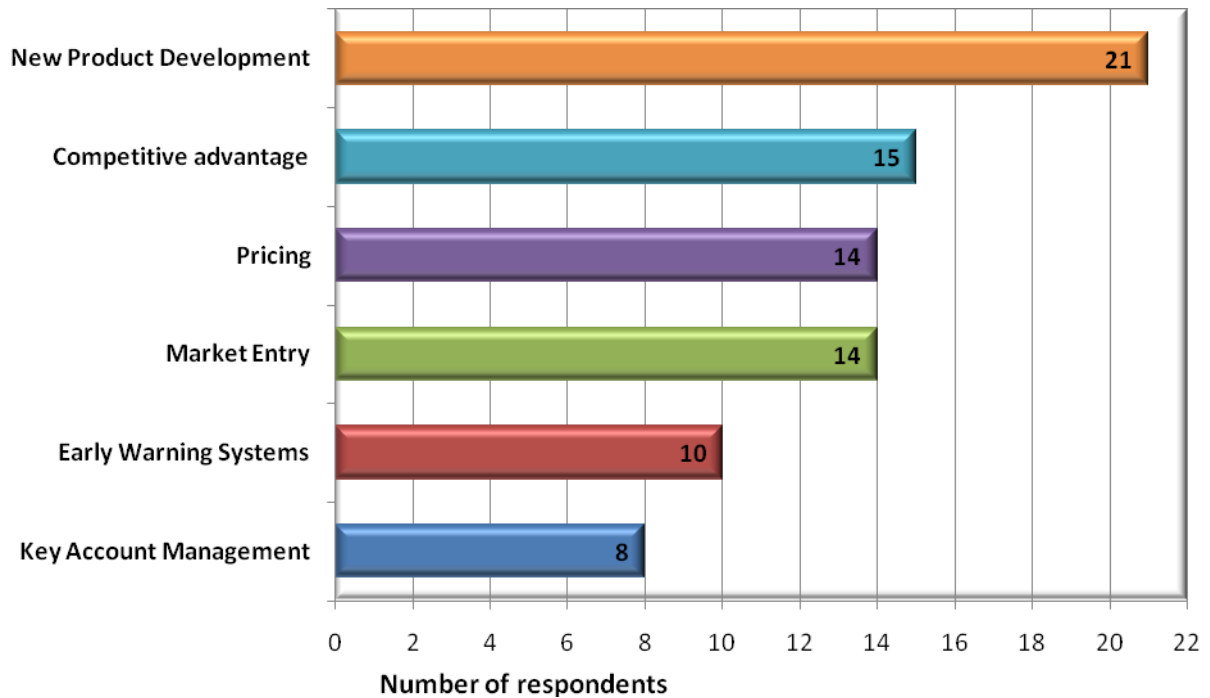


Figure 73 - Strategic Intelligence is used when considering the following (n=22)

Question 3.5.23 tried to determine to what extent the organisations use Strategic Intelligence as an input to decision-making at the Strategic, Tactical and Operational levels. The responses clearly indicated that Strategic Intelligence was predominately utilised at a Strategic level with a mean score of 4.00, while utilised at a lesser extent at Tactical level with a mean of 2.95, and hardly at all at an Operational level with a mean of 2.05.

Question 3.5.24 then followed on question 3.5.23 by enquiring what impact the use of Strategic Intelligence has on the following Strategic, Tactical and Operational levels of their organisation. The results showed that the use of Strategic Intelligence had the greatest impact at a Strategic level with a mean of 3.86, less at a tactical level with a mean of 3.00, and little impact at a operational level with a mean of 2.18.

Respondents were further questioned in question 3.5.25 as to whether they believed that further research should be conducted to identify better methods of implementing Strategic Intelligence in terms of Strategic Intelligence Methods and Models, Human Resource Skills and Capabilities, and Strategic Intelligence Systems. The results indicate the following:

- 81% believed more research was required on Strategic Intelligence Methods and Models,

- 77% suggested more research on the Human resource skills and capabilities required to conduct and analyse Strategic Intelligence,
- While 73% suggested further research into Strategic Intelligence Systems.

These results are show in Figure 74.

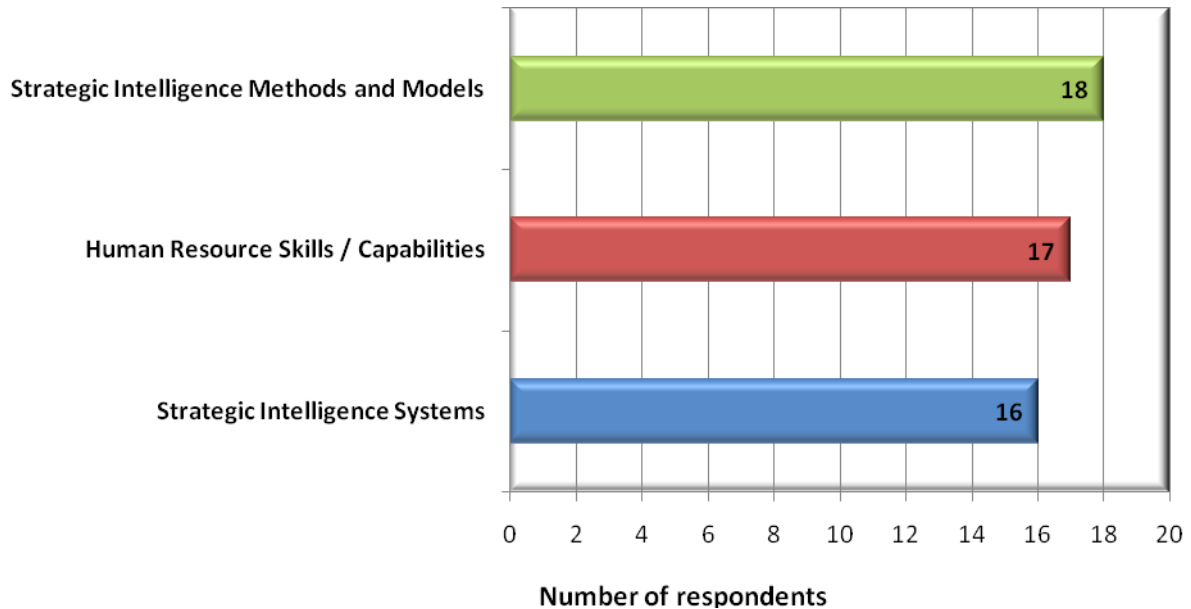


Figure 74 - Further research should be conducted in terms of the following (n=22)

Respondents were given the opportunity, as part of question 3.5.25, to provide additional comments on the subject of further research. A respondent explained that methods and models can assist people to find a framework from which to work, however, systems were less helpful if they were not applied consistently and therefore could result in a waste of money. A second respondent went further to elaborate that textbook models did not necessarily add value to businesses, but rather systems and people do.

A third respondent explained that Intelligence is tacit and intuitive and therefore not always stored in a single database, and that they did not believe there was a need to make the intelligence explicit, while another explained that they had a good idea of what their competitors were doing, and that intelligence was found within the heads of their managers and not written down or distributed. He went on to further explain that intelligence was produced and decisions made when certain issues occur, however admitted this removed the ability to track trends in decision-making.

It was further suggested that further research should be conducted into the use of good synthesis modelling techniques that consider both internal and external criteria.

The aim of question 3.4.26 was simply to determine whether any of the organisations make use of any Strategic Intelligence Software Applications or methods/models. 86% of respondents indicated that they did not make use of any specific Strategic Intelligence Software Applications or methods/models, while two indicated they made use of internally developed in-house systems created for specific purposes. Examples given included the launch of new product, barrier analysis for new markets, assessment of new sales channel, and an environment scan and analysis when performing due diligence on new acquisition. A third respondent indicated that they solely made use of external environment e-mails and reports which they subscribe to.

5.7.2 Ranking Variables

Having discussed the results of the previous sections, it is important to make it known that the mean scores become very low in section 5's results. A similar situation was found with the results of section 4. The results clearly indicate that a large range of opinion was shown in the results of these sections, however, the consensus remains that while many agree that textbook theory of Knowledge Management and Strategic Intelligence are important to decision-making, very few practice it.

With regard to the variables answered by the respondents, for section 5 - Strategic Intelligence, the tabulation of the overall mean and standard deviation results identify the variables that are considered as the most and least important by the respondents. All the variables are ranked in table 16 and table 17 below.

Table 16 illustrates the variables sorted by their mean scores. The ranking clearly illustrates that the majority of respondents agreed positively to the questions that related to the use of Strategic Intelligence and the enhanced results Strategic Intelligence could provide to organisational decision-making. The lower mean scores related directly to the implementation and actual use of Strategic Intelligence within organisations.

Table 16 - Section 5 Variables sorted by Mean

SECTION 5: STRATEGIC INTELLIGENCE			
Variable	Question	Mean	Std. deviation
3.5.4	We believe that Strategic Intelligence, as a collective, provides better information input to decision makers.	3.95	0.785
3.5.20	Strategic Intelligence enhances decision-making.	3.95	0.844
3.5.9	We believe Strategic Intelligence assists managers forge better, fact-based decisions.	3.91	0.750
3.5.21	Strategic Intelligence plays a critical role in the Strategic Management Process.	3.82	0.907
3.5.19	The use of Strategic Intelligence leads to competitive advantage and innovation.	3.77	0.973
3.5.11	Strategic Intelligence can assist managers to quantify / qualify strategic choices and articulate strategies.	3.73	1.032
3.5.10	Strategic Intelligence engages managers in the Strategy development process.	3.64	1.293
3.5.14	Strategic Intelligence can sharpen internal performance monitoring.	3.45	1.101
3.5.18	Our Strategic Intelligence requirements are linked to our strategic objectives and our long term goals.	3.09	1.109
3.5.1	Our organisation has a Strategic Intelligence process in place.	3.05	1.046
3.5.8	Managers use Strategic Intelligence in their strategic planning and decision-making.	2.86	1.207
3.5.6	We have a long-term Strategic Intelligence plan.	2.82	1.296
3.5.7	We use Strategic Intelligence at all levels of decision-making.	2.73	1.120
3.5.5	All Intelligence is checked for accuracy.	2.68	1.249
3.5.3	We fuse our Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making.	2.50	1.102
3.5.12	Key Decision makers are surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs.	2.41	1.098
3.5.17	We would consider outsourcing our Strategic Intelligence function.	2.36	1.002
3.5.2	Our organisation consolidates all our Intelligence into a single Intelligence repository.	2.27	1.162
3.5.15	Strategic Intelligence is a continuous activity in our organisation.	2.23	1.110

3.5.16	Our organisation has dedicated human resources to maintain our Strategic Intelligence function or process.	2.23	1.193
3.5.13	Strategic Intelligence forms part of our Performance Appraisal review process.	1.68	0.894

Table 17 sorts the tabulated variables by their standard deviation scores, which depict the level of agreement between respondents and the range of responses. The higher the standard deviation score, the greater the range of responses to the question, indicating the lack of consensus among the respondents answers. The highest standard deviation found for this section was for variable 3.5.6, and was 1.296, which questioned whether organisations have a long-term Strategic Intelligence plan. A low mean score clearly indicated that this was not the case, and the high standard deviation proved a spread of responses. Through the study of the tabulations for Section 5, it was found to have the lowest range of mean scores and highest average standard deviation scores with the majority having a score greater than 1.000. The results clearly indicate the discrepancy between the suggested theory and the reality within the industry.

Table 17 - Section 5 Variables sorted by Standard Deviation

SECTION 5: STRATEGIC INTELLIGENCE			
Variable	Question	Mean	Std. deviation
3.5.6	We have a long-term Strategic Intelligence plan.	2.82	1.296
3.5.10	Strategic Intelligence engages managers in the Strategy development process.	3.64	1.293
3.5.5	All Intelligence is checked for accuracy.	2.68	1.249
3.5.8	Managers use Strategic Intelligence in their strategic planning and decision-making.	2.86	1.207
3.5.16	Our organisation has dedicated human resources to maintain our Strategic Intelligence function or process.	2.23	1.193
3.5.2	Our organisation consolidates all our Intelligence into a single Intelligence repository.	2.27	1.162
3.5.7	We use Strategic Intelligence at all levels of decision-making.	2.73	1.120
3.5.15	Strategic Intelligence is a continuous activity in our organisation.	2.23	1.110
3.5.18	Our Strategic Intelligence requirements are linked to our strategic objectives and our long term goals.	3.09	1.109
3.5.3	We fuse our Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making.	2.50	1.102

3.5.14	Strategic Intelligence can sharpen internal performance monitoring.	3.45	1.101
3.5.12	Key Decision makers are surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs.	2.41	1.098
3.5.1	Our organisation has a Strategic Intelligence process in place.	3.05	1.046
3.5.11	Strategic Intelligence can assist managers to quantify / qualify strategic choices and articulate strategies.	3.73	1.032
3.5.17	We would consider outsourcing our Strategic Intelligence function.	2.36	1.002
3.5.19	The use of Strategic Intelligence leads to competitive advantage and innovation.	3.77	0.973
3.5.21	Strategic Intelligence plays a critical role in the Strategic Management Process.	3.82	0.907
3.5.13	Strategic Intelligence forms part of our Performance Appraisal review process.	1.68	0.894
3.5.20	Strategic Intelligence enhances decision-making.	3.95	0.844
3.5.4	We believe that Strategic Intelligence, as a collective, provides better information input to decision makers.	3.95	0.785
3.5.9	We believe Strategic Intelligence assists managers forge better, fact-based decisions.	3.91	0.750

5.8 Correlations and Cross Tabulation Analysis

5.8.1 Correlation Analysis Findings

To measure the strength of a linear relationship between two variables one can use the correlation coefficient (Pellissier, 2007b). Pellissier (2007b) identifies the correlation coefficient as a numerical quantity that measures how well the linear regression line fits the data. The correlation coefficient simply measures the strength of a linear relationship between two variables. The correlation coefficient is viewed as having a real value of between -1 and +1 (Pellissier, 2007b). While no specific cut-off values are set to indicate a high positive correlation or negative correlation relationship, for the purpose of this research study the researcher will use the following scale (Pellissier, 2007b):

- -1.0 to -0.7 will indicate a strong negative association.
- -0.7 to -0.3 will indicate a weak negative association.
- -0.3 to +0.3 will indicate little or no association.
- +0.3 to +0.7 will indicate a weak positive association.

- +0.7 to +1.0 will indicate a strong positive association.

For the purpose of this study the research will focus of relationships that fall into the -1.0 to -0.7 and +0.7 to +1.0 categories which indicate highly negative or highly positive linear relationships. A correlation matrix was used to simplify the identification of relationships, and can be found in Appendix G. For easy reference the question numbers are included in brackets after the description of the correlation.

The following correlations were identified to have a strong positive linear relationship (greater than +0.7):

- Organisations that utilise a formalised Strategic Management Process recognise Strategic Management as a necessary activity for business (3.1.1 and 3.1.2).
- Organisations that recognise Strategic Management as a necessary activity for business use Strategic Intelligence at all levels of decision-making (3.1.2 and 3.5.7), and have Strategic Intelligence requirements that are linked to their strategic objectives and long term goals (3.1.2 and 3.5.18).
- Organisations that provide its managers with critical and relevant information for strategic decision making also believe that they provide their managers with access to information that provides a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability, and the implications of trends in these areas for the firm (3.1.5 and 3.1.6).
- Organisations that collect and utilise Business Intelligence in decision making have Business Intelligence that is valid, reliable and actionable (3.2.1 and 3.2.2), furthermore organisations that believe their Business Intelligence is valid, reliable and actionable, also believe the availability of BI has increased the effectiveness of managerial decision making (3.2.2 and 3.2.3).
- Organisations that have a formal Competitive Intelligence function (which utilises a standardised Competitive Intelligence Process or framework), make use of Competitive Intelligence in decision-making (3.3.1 and 3.3.2).

- Organisations that believe that Knowledge Management assists in creating value out of their organisations intangible assets view Knowledge as a strategic tool (3.4.1 and 3.4.2). The same organisations that view knowledge as a strategic tool, believe their organisational culture is conducive to the sharing of knowledge (3.4.2 and 3.4.3).
- Organisations that benefit from the processes created to contribute knowledge, believe their Employees are aware of the benefits of Business Intelligence and Competitive Intelligence (3.4.4 and 3.4.6), and have processes in place for the conversion of individually held competence to systems, tools, or templates (3.4.4 and 3.4.11).
- Organisations whose Knowledge and Intelligence is contributed and accessed by employees by means of a central intelligence repository (which acts as a pool of corporate information) have:
 - Employees that are aware of the benefits of Business Intelligence and Competitive Intelligence (3.4.5 and 3.4.6), and
 - have the technical infrastructure to enable knowledge sharing (3.4.5 and 3.4.9), and
 - have a document management system in place (3.4.5 and 3.4.10), and
 - Have a process in place for the conversion of individually held competence to systems, tools, or templates (3.4.5 and 3.4.11).
- Organisations that have a process in place for the conversion of individually held competence to systems, tools, or templates; have Employees that are aware of the benefits of Business Intelligence and Competitive Intelligence (3.4.6 and 3.4.11), and conduct internal knowledge audits (e.g. identify and catalogue what people know, what reports they have, publications) (3.4.11 and 3.4.13).
- Organisations that have a Strategic Intelligence process in place use Strategic Intelligence at all levels of decision-making (3.5.1 and 3.5.7), survey or interview their Key Decision makers to verify that the intelligence products produced for them satisfy their needs (3.5.1 and 3.5.12), and include Strategic Intelligence as part of their Performance Appraisal review process (3.5.1 and 3.5.13).

- Organisations that consolidate all their Intelligence into a single Intelligence repository, fuse their Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making (3.5.2 and 3.5.3), and use Strategic Intelligence at all levels of decision-making (3.5.2 and 3.5.7).
- Organisations that fuse their Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making, have a long-term Strategic Intelligence plan (3.5.3 and 3.5.6), survey or interview their Key Decision makers to verify that the intelligence products produced for them satisfy their needs (3.5.3 and 3.5.12), and believe their Strategic Intelligence requirements are linked to their strategic objectives and their long term goals (3.5.3 and 3.5.18).
- Organisations believe that Strategic Intelligence, as a collective, provides better information input to decision makers and believe Strategic Intelligence can assist managers to quantify / qualify strategic choices and articulate strategies (3.5.4 and 3.5.11).
- Organisations that have a long-term Strategic Intelligence plan, survey or interview their Key Decision makers to verify that the intelligence products produced for them satisfy their needs (3.5.6 and 3.5.12), and have Strategic Intelligence as a continuous activity in their organisation (3.5.6 and 3.5.15).
- Organisations that use Strategic Intelligence at all levels of decision-making:
 - have managers that use Strategic Intelligence in their strategic planning and decision-making (3.5.7 and 3.5.8),
 - survey or interview their Key Decision makers to verify that the intelligence products produced for them satisfy their needs (3.5.7 and 3.5.12),
 - advise that Strategic Intelligence forms part of their Performance Appraisal review process (3.5.7 and 3.5.13),
 - view Strategic Intelligence as a continuous activity in their organisation (3.5.7 and 3.5.15), and
 - believe their Strategic Intelligence requirements are linked to their strategic objectives and their long term goals (3.5.7 and 3.5.18).

- Managers that use Strategic Intelligence in their strategic planning and decision-making believe their Key Decision makers are surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs (3.5.8 and 3.5.12).
- Organisations that believe Strategic Intelligence engages managers in the Strategy development process, believe Strategic Intelligence can assist managers to quantify / qualify strategic choices and articulate strategies (3.5.10 and 3.5.11), and believe that their Strategic Intelligence requirements are linked to their strategic objectives and their long term goals (3.5.10 and 3.5.18).
- Organisations that believe Strategic Intelligence can assist managers to quantify / qualify strategic choices and articulate strategies, believe Strategic Intelligence can sharpen internal performance monitoring (3.5.11 and 3.5.14), believe the use of Strategic Intelligence leads to competitive advantage and innovation (3.5.11 and 3.5.19), and judge Strategic Intelligence to enhance decision-making (3.5.11 and 3.5.20).
- Organisations whose Key Decision makers are surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs indicate that Strategic Intelligence forms part of their Performance Appraisal review process (3.5.12 and 3.5.13).
- Organisations that indicate Strategic Intelligence forms part of their Performance Appraisal review process, have Strategic Intelligence as a continuous activity in their organisation (3.5.13 and 3.5.15).
- Organisations that believe Strategic Intelligence can sharpen internal performance monitoring, believe the use of Strategic Intelligence leads to competitive advantage and innovation (3.5.14 and 3.5.19).
- Organisations that have Strategic Intelligence as a continuous activity in their organisation, have dedicated human resources to maintain their Strategic Intelligence function or process (3.5.15 and 3.5.16).
- Organisations that believe the use of Strategic Intelligence leads to competitive advantage and innovation, also believe that Strategic Intelligence enhances decision-making (3.5.19)

and 3.5.20), and that Strategic Intelligence plays a critical role in the Strategic Management Process (3.5.19 and 3.5.21).

- Organisations that believe Strategic Intelligence enhances decision-making, believe Strategic Intelligence plays a critical role in the Strategic Management Process (3.5.20 and 3.5.21).

Furthermore, a single correlation has a weak negative linear relationship:

- Organisations that would consider outsourcing their Strategic Intelligence function are not organisations that have dedicated human resources to maintain their Strategic Intelligence function or process (3.5.17 and 3.5.16).

5.8.2 Cross-tabulation Analysis Findings

Cross-tabulation is a technique that is used to summarise data from two or more variables into a single table so that specific values can be read (Saunders *et al.*, 2007). All variables used in the questionnaire were tabulated against each other, and were individually analysed to identify any relationships. Only variable relationships with scores greater than 7 were used in the analysis (i.e. respondents gave similar likert scale scores for both variables), as this cut-off was viewed as having the greatest significance. Due to the sample not being a random sample the significance of the relationship could not be tested by means of the Chi-square test for independence.

The following relationships were identified from the cross-tabulations (Tables can be viewed in Appendix G):

- Most of the respondents (7 out of 22) agreed that they utilise a formalised Strategic Management Process and view Knowledge as a strategic tool (3.1.1 and 3.4.2).
- A number of respondents agreed (7 out of 22) that they recognised Strategic Management as a necessary activity for business but strongly disagreed to conducting an internal knowledge audit (3.1.2 and 3.4.13).
- The organisations that strongly agreed to recognising Strategic Management as a necessary activity for business:

- agreed that Strategic Intelligence assists managers forge better, fact-based decisions (7 out of 22, 3.1.2 and 3.5.9),
- agreed that their Strategic Intelligence requirements are linked to our strategic objectives and their long term goals (8 out of 22, 3.1.2 and 3.5.18), and
- agreed that the use of Strategic Intelligence leads to competitive advantage and innovation (7 out of 22, 3.1.2 and 3.5.19).
- Organisations that strongly agree to viewing information as having strategic value,
 - agree their Strategic Intelligence requirements are linked to our strategic objectives and their long term goals (7 out of 22, 3.1.3 and 3.5.18), and
 - agree that the use of Strategic Intelligence leads to competitive advantage and innovation (7 out of 22, 3.1.3 and 3.5.19).
- Organisations that agreed to believing that good strategy hinges on having timely, relevant and high quality information view knowledge as a strategic tool (7 out of 22, 3.1.4 and 3.4.2).
- Respondents that strongly agreed to their organisation as being cognisant of new and pending government legislation and legislative trends that impact their organisation:
 - agreed to utilising a formalised Strategic Management Process (8 out of 22, 3.1.1 and 3.3.8),
 - strongly agreed that their organisation recognises Strategic Management as a necessary activity for business (8 out of 22, 3.1.2 and 3.3.8),
 - strongly agree that their organisation views information as having strategic value (8 out of 22, 3.1.3 and 3.3.8),
 - agreed that their organisation provides their managers with access to information that provides a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability ,and the implications of trends in these areas for the firm (7 out of 22, 3.1.6 and 3.3.8),
 - identified the use of Strategic Intelligence as having a medium impact on the tactical (Middle Management – Business , Functional or Department Level) level of their organisation (7 out of 22, 3.3.8 and 3.5.24_b: Tactical),

- agree that Knowledge Management assists in creating value out of their organisations intangible assets (10 out of 22, 3.3.8 and 3.4.1), and
 - view knowledge as a strategic tool (7 out of 22, 3.3.8 and 3.4.2).
- Organisations that agreed that there is value in having a predefined dashboard view of their organisation,
 - strongly agree that their organisation is cognisant of new and pending government legislation and legislative trends that impact their organisation (8 out of 22, 3.2.5 and 3.3.8),
 - agree that Knowledge Management assists in creating value out of their organisations intangible assets (7 out of 22, 3.2.5 and 3.4.1),
 - agree that the use of Strategic Intelligence leads to competitive advantage and innovation (7 out of 22, 3.2.5 and 3.5.19),
 - agree that Strategic Intelligence enhances decision-making (7 out of 22, 3.2.5 and 3.5.20), and
 - agree that Strategic Intelligence plays a critical role in the Strategic Management Process (7 out of 22, 3.2.5 and 3.5.21).
- Organisations that strongly agree that they are up to date with emerging technologies in their field of business and the benefits/features of these technologies:
 - remained neutral on whether they fuse their Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making (8 out of 22, 3.3.7 and 3.5.3),
 - however, agreed that their managers use Strategic Intelligence in their strategic planning and decision-making (7 out of 22, 3.3.7 and 3.5.8),
 - that Strategic Intelligence assists managers forge better, fact-based decisions (7 out of 22, 3.3.7 and 3.5.9),
 - that their Strategic Intelligence requirements are linked to our strategic objectives and our long term goals (7 out of 22, 3.3.7 and 3.5.9), and
 - that the use of Strategic Intelligence leads to competitive advantage and innovation (8 out of 22, 3.3.7 and 3.5.19).
- Organisations that agreed Knowledge Management assists in creating value out of their organisations intangible assets:

- view information as having strategic value (8 out of 22, 3.1.3 and 3.4.1),
 - agree that good strategy hinges on having timely, relevant and high quality information (7 out of 22, 3.1.4 and 3.4.1),
 - remained neutral as to whether their Business Intelligence is valid, reliable and actionable (7 out of 22, 3.2.2 and 3.4.1),
 - agreed that the availability of Business Intelligence has increased the effectiveness of managerial decision making (7 out of 22, 3.2.3 and 3.4.1),
 - but disagreed that all their Intelligence is checked for accuracy (7 out of 22, 3.4.1 and 3.5.5),
 - and disagreed that Strategic Intelligence is a continuous activity in their organisation (7 out of 22, 3.4.1 and 3.5.15),
 - however, agreed that the use of Strategic Intelligence leads to competitive advantage and innovation (7 out of 22, 3.4.1 and 3.5.19).
- Organisations that strongly disagreed to Strategic Intelligence forming part of their Performance Appraisal review process,
 - utilise a formalised Strategic Management Process (9 out of 22, 3.1.1 and 3.5.13),
 - recognises Strategic Management as a necessary activity for business (8 out of 22, 3.1.2 and 3.5.13),
 - believe that good strategy hinges on having timely, relevant and high quality information (7 out of 22, 3.1.4 and 3.5.13),
 - strongly agree that they are up to date with emerging technologies in their field of business and the benefits/features of these technologies (7 out of 22, 3.3.7 and 3.5.13),
 - believe that Knowledge Management assists in creating value out of their organisations intangible assets. (8 out of 22, 3.4.1 and 3.5.13),
 - view Knowledge as a strategic tool (8 out of 22, 3.4.2 and 3.5.13),
 - strongly disagree that their organisation consolidates all their Intelligence into a single Intelligence repository (7 out of 22, 3.5.2 and 3.5.13),
 - strongly disagree that their organisation has dedicated human resources to maintain their Strategic Intelligence function or process (7 out of 22, 3.5.13 and 3.5.16),

- remained neutral whether they would consider outsourcing their Strategic Intelligence function. (7 out of 22, 3.5.13 and 3.5.17),
 - indicated that Strategic Intelligence was hardly used at all on a operational level (7 out of 22, 3.5.13 and 3.5.23_c), and
 - that Strategic Intelligence had no impact on the operational level (7 out of 22, 3.5.13 and 3.5.24_c).
- Organisations that indicated that Strategic Intelligence is used by their organisation when considering how to gain Competitive advantage:
 - have managers that use Strategic Intelligence in their strategic planning and decision-making (7 out of 22, 3.5.22_a and 3.5.8),
 - believe Strategic Intelligence assists managers forge better, fact-based decisions (9 out of 22, 3.5.22_a and 3.5.9),
 - agree that Strategic Intelligence engages managers in the Strategy development process (7 out of 22, 3.5.22_a and 3.5.10),
 - agreed that Strategic Intelligence can assist managers to quantify / qualify strategic choices and articulate strategies (7 out of 22, 3.5.22_a and 3.5.11),
 - agree the use of Strategic Intelligence leads to competitive advantage and innovation (9 out of 22, 3.5.22_a and 3.5.19),
 - agree that Strategic Intelligence enhances decision-making (7 out of 22, 3.5.22_a and 3.5.20), and
 - agreed that Strategic Intelligence plays a critical role in the Strategic Management Process (7 out of 22, 3.5.22_a and 3.5.21).
 - Organisations that very often use Strategic Intelligence as an input to decision-making at a Strategic (Top Management - Corporate Level) level:
 - believe there is value in having a predefined dashboard view of their organisation (8 out of 22, 3.2.5 and 3.5.23_a),
 - strongly agree that their organisation is cognisant of new and pending government legislation and legislative trends that impact their organisation (9 out of 22, 3.3.8 and 3.5.23_a),
 - use Strategic Intelligence when considering:
 - Competitive advantage (9 out of 22, 3.5.23_a and 3.5.22_a).

- Market Entry (7 out of 22, 3.5.23_a and 3.5.22_c).
 - New Product Development (12 out of 22, 3.5.23_a and 3.5.22_d).
 - Pricing (8 out of 22, 3.5.23_a and 3.5.22_e).
 - but do not use Strategic Intelligence for:
 - Early Warning Systems (7 out of 22, 3.5.23_a and 3.5.22_b).
 - Key Account Management (8 out of 22, 3.5.23_a and 3.5.22_f).
 - often used Strategic Intelligence at a Tactical level (7 out of 22, 3.5.23_a and 3.5.23_b),
 - seldom used Strategic Intelligence at a Operational level (8 out of 22, 3.5.23_a and 3.5.23_c), and
 - indicated that Strategic Intelligence has a high impact at Strategic level (9 out of 22, 3.5.23_a and 3.5.24_a).
- Organisations that often use Strategic Intelligence as an input to decision-making at the Tactical (Middle Management – Business , Functional or Department Level) level:
 - are up to date with emerging technologies in our field of business and the benefits/features of these technologies (7 out of 22, 3.3.7 and 3.5.23_b), and
 - use Strategic Intelligence to gain Competitive advantage (7 out of 22, 3.5.23_b and 3.5.22_a).
- Organisations that view the use of Strategic Intelligence as having a high impact at a Strategic (Top Management - Corporate Level) level:
 - utilise a formalised Strategic Management Process (7 out of 22, 3.1.1 and 3.5.24_a),
 - strongly recognise Strategic Management as a necessary activity for business (7 out of 22, 3.1.2 and 3.5.24_a),
 - strongly agree to their organisation viewing information as having strategic value (7 out of 22, 3.1.3 and 3.5.24_a),
 - agree that good strategy hinges on having timely, relevant and high quality information (7 out of 22, 3.1.4 and 3.5.24_a),
 - agree that there is value in having a predefined dashboard view of our organisation (8 out of 22, 3.2.5 and 3.5.24_a),

- agree that their organisation makes use of Competitive Intelligence in decision-making (7 out of 22, 3.3.2 and 3.5.24_a),
- strongly agree that their organisation utilises external sources of information for market research (research companies) (7 out of 22, 3.3.4 and 3.5.24_a),
- strongly agree that their organisation is cognisant of new and pending government legislation and legislative trends that impact our organisation (12 out of 22, 3.3.8 and 3.5.24_a),
- agree that Knowledge Management assists in creating value out of their organisations intangible assets (8 out of 22, 3.4.1 and 3.5.24_a),
- view Knowledge as a strategic tool (7 out of 22, 3.4.2 and 3.5.24_a),
- agree that their Strategic Intelligence requirements are linked to their strategic objectives and their long term goals (7 out of 22, 3.5.18 and 3.5.24_a),
- do not have a process in place for the conversion of individually held competence to systems, tools, or templates (7 out of 22, 3.4.11 and 3.5.24_a),

However, remain neutral regarding whether their:

- organisation benefits from the processes created to contribute knowledge (7 out of 22, 3.4.4 and 3.5.24_a),
- organisational culture is conducive to the sharing of knowledge (7 out of 22, 3.4.3 and 3.5.24_a),
- organisation has a document management system in place (7 out of 22, 3.4.10 and 3.5.24_a),
- organisation stores Intellectual Capital (7 out of 22, 3.4.12 and 3.5.24_a),
- organisation has a Strategic Intelligence process in place (7 out of 22, 3.5.1 and 3.5.24_a),
- organisation fuse their Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making (8 out of 22, 3.5.3 and 3.5.24_a),
- and indicated that Strategic Intelligence is used by their organisation when considering:
 - Competitive advantage (11 out of 22, 3.5.24_a and 3.5.22_a).
 - New Product Development (12 out of 22, 3.5.24_a and 3.5.22_d).
 - Pricing (9 out of 22, 3.5.24_a and 3.5.22_e).

5.9 Data Reliability

Cronbach's alpha reliability coefficient was used to estimate the reliability of the research instrument utilised in the study. Cronbach's alpha reliability coefficient is a measure of internal consistency which measures the mean inter-correlation weighted by variances. Cronbach's alpha reliability coefficient normally ranges between 0 and 1, where the closer the result is to 1, the greater the internal consistency of the variables on the scale. A result of greater than 0.8 indicates a good result, while a result greater than 0.9 reflects an excellent result.

The internal consistency of each of the sections - 3.1 to 3.5 - was tested separately. The results show (Results can be found in Appendix H) that Cronbach's alpha reliability coefficient was high (above 0.8) for all the sections, meaning that each section shows good internal consistency.

Table 18 - Internal Consistency Test Results

Section	Cronbach's Alpha	Evaluation
3.1	0.842	Good
3.2	0.801	Good
3.3	0.833	Good
3.4	0.900	Excellent
3.5	0.942	Excellent

5.10 Conclusion

Chapter 5 introduced the methods used to analyse the data that was collected from the respondents in the Long-term insurance industry, and further discussed how the data was analysed. A discussion of all the variables in the questionnaire was then performed including an analysis of the results, with a tabulation of the variables by their mean and standard deviation scores to gain a greater insight into the thoughts of the respondents. The chapter investigated the reliability of the research data and instrument.

The following chapter will synthesise the analysis of the results to provide conclusions based on the data analysed and the literature study undertaken in chapter 2. The chapter will provide a summary of the findings per section, and a discussion of the conclusions with regard to the study's goals and objectives.

Chapter 6

Conclusion

“Any company that cannot imagine the future won't be around to enjoy it.” – G. Hamel and C. Prahalad.

6.1 Introduction

An organisation has an underlying need to know about its business environment (its activities, resources, markets, customers, products, services, and costs) to plan for its current and future success. This knowledge, which could allow for the organisation's successful functioning needs to be disseminated organisation-wide. This results in one of the basic challenges for senior management, which is how to create a mindset about the present and the future in order to anticipate trends and the directions to be taken (Tham and Kim, 2002).

Strategic Intelligence can be defined as what a company needs to know of its business environment to enable it to gain insight into its present processes, anticipate and manage change for the future, design appropriate strategies that will create business value for customers, and improve profitability in current and new markets (Tham and Kim, 2002).

Strategic Intelligence has data and information as its foundation. Information can be collected from both internal and external sources such as; transaction processing, financial or supply chain systems and external databases of customer, product, and supplier information or by further utilising tools such as Michael Porter's Five Forces Model or Value chain analysis to create value by converting data into information. By collecting all this information into a single data warehouse or Strategic Intelligence Repository that combines all the best aspects of Strategic Intelligence and Information systems, a single databank will be created that would align them to provide business with the information and even intelligence it requires (Liebowitz, 2006a)

This research proposes that through its ability to absorb sources of information, the synergy of business intelligence, competitive intelligence, and knowledge management combined to form Strategic Intelligence, will allow organisations to incorporate all of their information and intellectual capital into a single database or system which will meet the intelligence requirements of management.

While the article by Montgomery and Weinberg (1998) gave an insight into the working or design of a Strategic Intelligence System, and Liebowitz (2006a) and Marchand and Hykes (2007) identified the basis of Strategic Intelligence, the researcher suggests that organisations have not yet fully embraced this model for a fully cooperative global internal corporate Strategic

Intelligence System or Portal that will incorporate all aspects of Strategic Intelligence into a single, easily manageable resource for management's strategic planning and decision-making process.

Any research that is to be completed requires test subjects on which the research can be based, and the topic tested. The South African business environment comprises many industries and for the purpose of this study, the Long-term Insurance Industry was selected. The population was chosen as a representative of the greater South African business environment as the organisations in the industry involved are exceptionally vulnerable to changes within the macro- and micro- environment, are undergoing intense changes within their market and regulatory environment, and their competitive advantage is based on their use of data and information gathered on these environments.

The purpose of this study was to identify the current use of Strategic Intelligence in the Long-term insurance industry in the South African environment, to enhance their ability to withstand the onslaught of global competitors and expand their business into new markets, protect their local market or identifying potential merger or acquisition targets, and to increase innovation within the organisations through the appropriate use of Strategic Intelligence Systems.

To achieve the purpose of this research study, the primary aim was identified as to explore the extent to which Strategic Intelligence is utilised within the South African Long-term insurance industry and whether it could be used to identify opportunities or threats within the global environment to remain competitive, create greater innovation, and corporate advantage.

Building on the basis of the primary aim, the following primary research questions were generated:

- What is the extent to which Strategic Intelligence is utilised within the South African Long-term insurance industry?
- How does Strategic Intelligence form a vital component of Strategic Management?
- What value does Strategic Intelligence add to the Strategic Management Process within the South African Long-term insurance industry?

From which the below secondary research questions were generated:

- How do South African Long-term insurance organisations currently collect and create Strategic Intelligence?
- What information systems are currently utilised by South African Long-term insurance organisations to create Strategic Intelligence?
- How Strategic Decisions are made in South African Long-term insurance organisations and on what intelligence are these decisions based?
- How South African Long-term insurance organisations can best implement Strategic Intelligence?

However, to perform an in-depth research study it was important to identify primary and secondary Research Objectives which built on the research questions. These were identified as:

Primary Objectives:

- To identify the level of utilisation of Strategic Intelligence within the South African Long-term insurance industry.
- To determine how Strategic Intelligence is used and contributes to the Strategic Management Process within the South African Long-term insurance industry.
- To establish how Strategic Intelligence adds value to organisations within the South African Long-term insurance industry.

Secondary Objectives:

- To establish how Data and Information is collected and transformed into Strategic Intelligence within the South African Long-term insurance industry.
- To establish the use of information systems to create Strategic Intelligence within the South African Long-term insurance industry.
- To establish to what extent Strategic Intelligence can address the input needs of the Strategic Decision Making Process within the South African Long-term insurance industry.

- To compare the findings obtained from the sample to determine how Strategic Intelligence is implemented within South African business organisations.

To answer these questions and meet the objectives, the following was done to gain the required insight into the subject matter and population:

- A *literature study* (Chapter 2) was performed to acquire a theoretical foundation of the concepts that constitute Strategic Intelligence and Strategic Management.
- A *situation analysis* (Chapter 3) was undertaken to gain an understanding of the South African Long-term insurance industry and the sample organisations.
- A *survey* was conducted with the use of a questionnaire specially developed for the purpose of this study. The survey allowed for both a comparative assessment of the findings of this research between the sample organisations, as well as a content analysis of findings obtained through the qualitative views and opinions of the respondents.

As part of the survey component, the purposive sampling technique was utilised to select the best cases that would enable the questions to be answered and result in the research objectives being met.

As a homogeneous group, the Long-term Insurance Industry was selected as the population and the individual organisations approached were identified from the list of valid licenses registered with the Financial Services Board. Based on the list of organisations provided by the Financial Services Board, there are 82 Long-term insurance companies in South Africa, of which six organisations were listed on the Johannesburg Securities Exchange within the Life Assurance Sector. The listed companies include: Old Mutual Plc, Liberty Group Ltd, Sanlam Ltd, Discovery Holdings Ltd, Clientele Life Ltd, and Metropolitan Holding Ltd. For the purpose of this research all 82 companies were approached to participate in the survey, which provided an in depth examination of the use of Strategic Intelligence within the Long-term insurance Industry, however, the focus of the study was on the listed companies, due to their size, turnover, agility and expected efficiencies in this field.

In the previous chapter research results were analysed according to the structure used in the questionnaire. This chapter will outline the findings drawn from each section of the results;

submit final conclusions drawn from the study and outline future research and recommendations.

6.2 *Empirical Research Findings*

6.2.1 Strategic Management

The purpose of section 1, part 3 of the questionnaire was to gain an understanding of the extent to which respondents undertake strategic management within the Long-Term insurance industry. Based on the results obtained, discussed in Chapter 5.3, the results suggest that:

- Respondents do, to a large extent, utilise a formalised Strategic Management Process.
- Respondents recognise Strategic Management as a necessary activity for business.
- Respondents view information as having strategic value.
- Respondents believe that good strategy hinges on having timely, relevant and high quality information.
- Respondents do attempt to provide their managers with critical and relevant information for strategic decision making; however, smaller organisations that were in greater disagreement do not have the capacity to provide managers with the required information, as larger organisations do.
- The majority of respondents believe that they do provide their managers with access to information that provides them a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability, and the implications of trends in these areas for the firm, however smaller organisations are at a disadvantage to larger organisations.

The results allow the researcher to conclude that Strategic Management is to a large extent utilised within organisations in the Long-Term insurance industry, however, smaller organisations are at a disadvantage with regards to the provision of information to management.

6.2.2 Business Intelligence

The purpose of the second section of part 3 of the questionnaire was to gain an understanding into the Business Intelligence activities that are undertaken by the organisations within the Long-

Term insurance industry. Based on the results obtained, discussed in Chapter 5.4, the results suggest that:

- Respondents do collect and utilise Business Intelligence in decision-making, however, the results distinctly provide evidence that larger organisations make greater use of Business Intelligence than smaller organisations.
- Respondents, in general, have Business Intelligence that is valid, reliable and actionable. However, a large gap occurred between the results provided by smaller organisations than those of large organisations. Thus proving that smaller organisations do not have Business Intelligence that is valid, reliable and actionable.
- That the majority of respondents believed that the availability of Business Intelligence increased the effectiveness of managerial decision-making.
- A greater proportion of organisations did not have a predefined dashboard view of their organisations, than those that did, however the respondents unanimously agreed that a predefined dashboard view of the organisation is important for managerial decision-making.
- A large number of different software applications were used by respondents to gather and generate Business Intelligence.

The results allow the researcher to conclude that Business Intelligence is to a large extent utilised within organisations in the Long-Term insurance industry. Larger organisations make greater use of Business Intelligence than smaller organisations, and therefore have a much greater competitive advantage due to their: access to valid, reliable and actionable Business Intelligence, predefined dashboard views of their organisations, and software applications used.

6.2.3 Competitive Intelligence

The purpose of section three of part 3 of the questionnaire was to gain an understanding of the Competitive Intelligence activities that take place within organisations within the Long-Term insurance industry. Based on the results obtained, discussed in Chapter 5.5, the results suggest that:

- Larger organisations do have a formal Competitive Intelligence function, where as smaller organisations; in general do not have a formalised Competitive Intelligence function.
- Results indicated that a high number of organisations do make use of Competitive Intelligence in decision-making even if no formalised function exists for the management of Competitive Intelligence.
- Too few organisations have achieved the task of timely creation and distribution of Competitive Intelligence to management, with larger organisations having greater success in this area.
- The vast majority of organisations do utilise external sources of information for market research.
- A large number of organisations do evaluate the reliability and accuracy of their sources of information.
- Large organisations do in fact analyse their competitors and have up to date profiles of them, while smaller organisations mostly did not.
- Most organisations are up to date with emerging technologies in their field of business and the benefits/features of these technologies.
- Organisations are cognisant of new and pending government legislation and legislative trends that impact their organisation.
- The most important sources for the collection of Competitive Intelligence included the analysis of competitor's products (86%), websites (86%), annual reports (77%) and research reports (72%).
- The most common Analytical Methods or Models used within the organisations to generate Competitive Intelligence included SWOT Analysis and Competitor Analysis (both with 82%), Customer Segmentation Analysis (72%), Industry Analysis (64%), and Financial Analysis and Valuation (59%).
- The most popular methods used by organisations to distribute and present intelligence findings were Email (77%), presentations (72%), and reports (64%).
- Very few organisations made use of Competitive Intelligence Software Applications.

The results allow the researcher to conclude that Competitive Intelligence activities are more prevalent in a formalised manner in larger organisations in the Long-Term insurance industry,

while smaller organisations make much greater use of Competitive Intelligence on an ad-hoc, or when required basis.

6.2.4 Knowledge Management

The purpose of the fourth section of part 3 of the questionnaire was to gain an understanding of the Knowledge Management activities that take place within the organisations in the Long-Term Insurance industry. Based on the results obtained, discussed in Chapter 5.6, the results suggest that:

- Results prove conclusively that organisations believe that Knowledge Management assists in creating value out of their organisations intangible assets.
- Organisations do view Knowledge as a strategic tool.
- The majority of organisation's organisational culture is conducive to the sharing of knowledge.
- Overall, the organisations benefit from the processes created to contribute knowledge.
- The majority of organisations did not have a central intelligence repository to which employees were able to contribute or access knowledge.
- Employees were mostly not aware of the benefits of Business Intelligence and Competitive Intelligence, which points towards a lack of internal education or marketing with regards to the benefits of Business and Competitive Intelligence.
- A significant amount of organisations do require their Employees to be personally responsible for the transfer and storage of knowledge in their area of speciality.
- It is clear from the results that there are a number of organisations that have an environment in which employees do not contribute regular information, which is discouraging as employees are often privy to valuable information, while those that do encourage contributions could find themselves with a competitive advantage.
- An equal number of organisations do have and do not have facilities available to their employees to enable the sharing of knowledge, with smaller organisations the least likely to have access to the correct technical infrastructure.
- Smaller organisations are least likely to have a document management system in place.
- Most Organisations do not have a process in place for the conversion of individually held competence to systems, tools, or templates.

- Most organisations do not store Intellectual Capital.
- Organisations do not conduct internal knowledge audits.
- Most organisations do not use specific Knowledge Management Software applications but a number made use of in house data stores such as a central file repository on the corporate intranet, Microsoft SharePoint Portal, and in house systems to store and manage knowledge.

The results allow the researcher to conclude that the vast majority of organisations in the Long-Term insurance industry do believe that Knowledge Management provides value as a strategic tool, and had a culture conducive to knowledge sharing where employees are responsible for contributing knowledge in their specific area of expertise. However, the results show that employees are often not aware of the benefits of their contributions, and that they do not regularly contribute information. The results also showed that most of the organisations lacked internal systems dedicated to the collection and storage of Knowledge, which could contribute to the lack of knowledge contributed by employees.

6.2.5 Strategic Intelligence

The purpose of section five of part 3 of the questionnaire was to gain an understanding of the Strategic Intelligence activities that take place within organisations in the Long-Term insurance industry. Based on the results obtained, discussed in Chapter 5.7, the results suggest that:

- Strategic Intelligence processes are more prevalent in larger organisations.
- Respondents do not, on average, consolidate all their Intelligence into a single Intelligence repository.
- The majority of respondents do not fuse their Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making.
- Respondents do believe that Strategic Intelligence, as a collective, provides better information input to decision makers.
- Not all Intelligence gathered is checked for accuracy.
- The majority of respondents did not have a long-term Strategic Intelligence plan.
- Strategic Intelligence is not used at all levels of decision-making.

- A growing proportion of Managers use Strategic Intelligence in their strategic planning and decision-making.
- Strategic Intelligence does assist managers forge better, fact-based decisions.
- Strategic Intelligence does engage managers in the Strategy development process.
- Strategic Intelligence does assist managers to quantify / qualify strategic choices and articulate strategies.
- Key Decision makers are not always surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs.
- Strategic Intelligence does not form part of the respondents Performance Appraisal review process.
- Strategic Intelligence can sharpen internal performance monitoring.
- Strategic Intelligence is not a continuous activity in the respondent's organisation.
- Organisations do not, on average, have dedicated human resources to maintain their Strategic Intelligence function or process.
- Very few respondents would consider outsourcing their Strategic Intelligence function.
- Respondents Strategic Intelligence requirements are linked to their strategic objectives and their long term goals.
- The use of Strategic Intelligence can lead to competitive advantage and innovation.
- The respondents believed that Strategic Intelligence enhances decision-making.
- Strategic Intelligence plays a critical role in the Strategic Management Process.
- Strategic Intelligence is most commonly used by the organisations during New Product Development (95%), when considering Competitive Advantage (68%), when determining Pricing Strategies (64%), and when considering Market Entry Strategies (64%).
- Strategic Intelligence was predominately utilised at a Strategic level as an input to decision-making.
- Strategic Intelligence had the greatest impact at a Strategic level.
- Respondents believed further research should be conducted to identify better methods of implementing Strategic Intelligence.
- Most organisations did not make use of any Strategic Intelligence Software Applications or methods/models.

The results allow the researcher to conclude that the majority of organisations in the Long-Term Insurance Industry agree that Strategic Intelligence is an important component to Strategic Decision-making. Strategic Intelligence can therefore provide their management with better information input that could lead to competitive advantage and innovation. Even so only a few of the larger organisations have formalised processes or systems in place for the formation and use of Strategic Intelligence.

6.3 Summary and Key Findings

In the first part of this chapter the findings drawn from the empirical results, obtained from respondents to the survey questionnaire, were summarised. While the results have in isolation provided interesting findings, they should be understood in relation to the research questions and objectives. The findings will now be discussed, focusing on the secondary objectives first:

6.3.1 How Data and Information are collected and transformed into Strategic Intelligence

Data and Information are the basic building blocks which are collected and analysed to form actionable intelligence. Strategic Intelligence is comprised of different sources of data, including internal Business Intelligence, external Competitive Intelligence, and employee and organisational knowledge, which should be combined to provide the organisational decision makers with accurate intelligence on which to base their decisions.

The findings of the empirical results will be discussed per intelligence stream, to provide a detailed understanding of how data and information is collected and transformed into Strategic Intelligence.

The findings indicate that the intelligence stream which is most predominantly focused upon is Business Intelligence, with the majority of respondents collecting Business Intelligence. The findings indicate that a number of systems are used to transform the Business Intelligence data into intelligence, which is found to be valid, actionable and reliable. However, a greater proportion of organisations did not transform the data into a predefined dashboard view of their organisations, than those that did, who unanimously agreed that a predefined dashboard view of the organisation is important for managerial decision-making. The findings clearly provided evidence that larger organisations make greater use of Business Intelligence than smaller organisations.

From a competitive intelligence viewpoint, the findings indicated that too few organisations have achieved the task of timely creation and distribution of Competitive Intelligence to management, with larger organisations having greater success in this area. The findings further provided that the vast majority of organisations do utilise external sources of information for market research, with the most important sources for the collection of Competitive Intelligence including the analysis of competitor's products (86%), websites (86%), annual reports (77%) and research reports (72%). The findings further suggest that a large number of organisations do evaluate the reliability and accuracy of their sources of information. Although these data sources can be classified as important and useful, the value of them for competitive intelligence purposes can be debated. The majority of them include information on past activities, while remaining important, give a predominately historical view of the competitors or environment which is to be analysed. From a Competitive Intelligence viewpoint, it is always important to have current, up to date, intelligence on your competitor to allow you to anticipate future activities.

After collecting the data, the most common analytical methods or models used within the organisations to generate Competitive Intelligence included SWOT Analysis and Competitor Analysis (both with 82%), Customer Segmentation Analysis (72%), Industry Analysis (64%), and Financial Analysis and Valuation (59%), with the most popular methods used by organisations to distribute and present intelligence findings being Email (77%), presentations (72%), and reports (64%).

The findings provided a discouraging view of how tacit knowledge is collected and transformed into explicit knowledge through a Knowledge Management transformation process within organisations in the Long-term insurance industry. Very few organisations had a process in place for the conversion of individually held tacit competence to explicit systems, tools, or templates. The majority of organisations did not have a central intelligence repository to which employees were able to contribute or access knowledge, while an equal number of organisations do have and do not have facilities available to their employees to enable the sharing of knowledge, with smaller organisations the least likely to have access to the correct technical infrastructure. A few larger organisations did, however, have a document management system in place as a central store for documents, very little of it was audited or transformed into Intellectual Capital.

The above findings correlate to the results found regarding Strategic Intelligence. The findings concluded that the majority of respondents do not fuse their Business Intelligence, Competitive

Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making, and do not, on average, consolidate all their Intelligence into a single Intelligence repository. Intelligence gathered is often not checked for accuracy, nor do the organisations, on average, have dedicated human resources to maintain their Strategic Intelligence function or process.

The lack of consolidation of Strategic Intelligence is of particular significance in the context of this research, as the discrepancy between the availability and importance of this intelligence for use in the context of Strategic Management is of vital importance. Without the correct intelligence available, decision making cannot lead to a competitive advantage over competitors.

It is interesting to note the extent of Business Intelligence processes and the use thereof, and the prevalence of certain competitive intelligence methods and models over others. This can strongly be related to the popularity of Business Intelligence in the local technological media and the potential advantages thereof, and the prominence of certain models in the curriculums of tertiary institutions.

6.3.2 The Use of information systems to create Strategic Intelligence

The empirical results of this study suggest that the majority of the respondents did not make use of any specific Strategic Intelligence information systems, although two respondents did indicate that they made use of internally developed in-house systems created for specific purposes as the need arose.

Strategic Intelligence is however comprised of a number of subcomponents including Business Intelligence, Competitive Intelligence and Knowledge Management, all of which can make use of systems designed exclusively for them. As part of the survey, respondents were questioned whether individual systems were used, and the findings were as follows:

- A large number of different software applications were used by respondents to gather and generate Business Intelligence. While some respondents indicated that they did not make use of any systems, the 73% of the respondents did indicate that they used various systems ranging from basic Business Intelligence Portals, in-house business intelligence tools (including the use of SQL databases and excel) based upon the data provided by financial,

manufacturing, and marketing systems data, management information systems, and a variety of off the shelf business intelligence packages such as:

- Qlikview
 - Cognos
 - EG Solutions operational management software
 - Crystal Reports
 - RADS - Unisys supported - linked to underlying data warehouse
 - STD Exergy
 - Hyperion
 - Business objects
 - SAP BI
 - SPSS Clementine is used for Data Mining
 - Specialist visualisation software
- Only 32% of the organisations made use of Competitive Intelligence Software Applications. This included the use of internally developed systems, the Microsoft suite of products including predominately SharePoint, the electronic storage of documents on servers, and a single respondent indicated their use of a software application named Goldmine.
 - Most organisations do not use specific Knowledge Management Software applications but a small number made use of in house data stores such as a central file repository on the corporate intranet, Microsoft SharePoint Portal, and in house systems to store and manage knowledge. Further findings provided by a single respondent provided detailed information explaining that their Operational knowledge, lessons learnt, and technical knowledge are captured in Content manager, and Microsoft applications. Furthermore, they made use of bodies and structures such as Community of Practice, online learning tools and forums as their Knowledge Management toolkit.

Another respondent from a large organisation explained that they did not yet have a centralised approach across their entire organisation, however, individual departments made use of extensive knowledge management practices which were conducted and managed successfully.

The findings clearly indicate a resounding bias in the use of business intelligence systems which are used for the management of the organisations internal business environment. It is however, concerning that few systems are used for the management of information and more critically intelligence on the organisations external environment. The lack of knowledge management systems further indicate that there is a high possibility of losing valuable Intellectual Capital if not captured and stored in centralised systems.

Furthermore, the findings indicated a huge deficiency in the use of any systems in smaller organisations. While the costs of larger systems is prohibitive, and in instances prove to be highly complex, a number of systems are available for a low cost or in some instances completely free, and can be maintained at a low cost to the organisations.

Based upon these findings, it is imperative that organisations should investigate the advantages that systems could provide in influencing the outcomes of both internal and external forces that impact the competitive nature of the organisations. Accordingly, a well-structured and functioning Strategic Intelligence system should receive urgent attention in organisations within the Long-term insurance industry, in order to provide accurate, timely and structured intelligence for use in decision making.

6.3.3 The extent to which Strategic Intelligence can address the input needs of the Strategic Decision-making process

From the findings it was clear that the respondents believed that Strategic Intelligence enhances decision-making. Furthermore, the findings showed that Strategic Intelligence is predominately utilised at a Strategic level as an input to decision-making, and that Strategic Intelligence had the greatest impact at a Strategic level.

Findings demonstrate that Strategic Intelligence is most commonly used by the organisations as an input to Strategic Decisions regarding New Product Development (95%), when considering Competitive Advantage (68%), when determining Pricing Strategies (64%), and when considering Market Entry Strategies (64%). Due to the nature of Strategic Intelligence, the intelligence it provides includes intelligence on the organisations internal, external and knowledge environments which can to a large extent addresses all the input requirements of the Strategic Decision making process.

The findings made it clear that Strategic Intelligence could to a large extent address the input needs of the Strategic Decision-making process.

6.3.4 The level of utilisation of Strategic Intelligence within the South African Long-term Insurance Industry

The empirical results of the research highlight the fact that Strategic Intelligence processes are more prevalent in larger organisations. This could simply be due to the lack of human and financial resources available to smaller organisations.

The results further suggest that most organisations do collect and utilise Business Intelligence in decision-making, however, the results distinctly provide evidence that larger organisations make greater use of Business Intelligence than smaller organisations.

Results further establish that larger organisations do have a formal Competitive Intelligence function, where as smaller organisations, in general did not have a formalised Competitive Intelligence function. However, findings indicate that a high number of organisations do make use of Competitive Intelligence in decision-making even if no formalised function exists for the management of Competitive Intelligence.

Knowledge Management, it was found, was not often utilised with the exception being a select few larger organisations. Knowledge Management often constituted an informal central repository for project and organisational documentation rather than formalised actionable explicit knowledge.

Based upon these findings, it was clear that respondents do believe that Strategic Intelligence, as a collective, provide better information input to decision makers.

While belief is important, reality proved that the majority of respondents did not have a long-term Strategic Intelligence plan, and that Strategic Intelligence is not used at all levels of decision-making but that a growing proportion of Managers felt its importance and thus started to use Strategic Intelligence in their strategic planning and decision-making.

6.3.5 How Strategic Intelligence is used and contributes to the Strategic Management Process within the South African Long-term Insurance Industry.

From the empirical results it is apparent that the organisations in the Long-term insurance industry do to a large extent, utilise a formalised Strategic Management Process, and therefore recognise Strategic Management as a necessary activity for business. Furthermore, respondents view information as having strategic value and believe that good strategy hinges on having timely, relevant and high quality information.

Findings indicate that Strategic Intelligence is predominately utilised at a Strategic level as an input to decision-making, and therefore has the greatest impact at a Strategic level. Respondents further indicated that their Strategic Intelligence requirements are linked to their strategic objectives and their long term goals.

Findings found that organisations do attempt to provide their managers with critical and relevant information for strategic decision making; however, smaller organisations that were in greater disagreement do not have the capacity to provide managers with the required information, as larger organisations do. Furthermore, the majority of respondents believe that they do provide their managers with access to information that provides them a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability, and the implications of trends in these areas for the firm, however smaller organisations are at a disadvantage to larger organisations.

The empirical results further showed that organisations do not, on average, have dedicated human resources to maintain their Strategic Intelligence function or process, and that key decision makers are not always surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs. Strategic Intelligence was found to not form part of the respondents Performance Appraisal review process and is not a continuous activity in the organisations.

6.3.6 How Strategic Intelligence adds value to organisations within the South African Long-term Insurance Industry

There are a number of ways in which Strategic Intelligence can provide value to organisations. The lowest level of value that can be added is in the separate information provided by the components of Strategic Intelligence which will now be discussed.

The majority of respondents believed that the availability of Business Intelligence increased the effectiveness of managerial decision-making, and therefore lead to greater competitive advantage due to their access to valid, reliable and actionable Business Intelligence, predefined dashboard views of their organisations, and software applications used.

The findings prove the use of Competitive Intelligence allows the management of organisations to be up to date with emerging technologies in their field of business and the benefits/features of these technologies. Furthermore, it allows organisations to be cognisant of new and pending government legislation and legislative trends that impact their organisation. It was also found that large organisations do in fact analyse their competitors and have up to date profiles of them, while smaller organisations mostly did not.

Results confirm conclusively that organisations believe that Knowledge Management assists in creating value out of their organisations intangible assets. Findings proved that organisations do view Knowledge as a strategic tool, and believe their organisation's organisational culture is conducive to the sharing of knowledge and claim to benefit from the processes created to contribute knowledge. A significant amount of organisations require their Employees to be personally responsible for the transfer and storage of knowledge in their area of speciality, however, it is clear from the results that there are a number of organisations that have an environment in which employees do not contribute regular information, which is discouraging as employees are often privy to valuable information, while those that do encourage contributions could find themselves with a competitive advantage.

The findings indicated that the organisations believe that Strategic Intelligence enhances decision-making, and that Strategic Intelligence plays a critical role in the Strategic Management Process.

Strategic Intelligence therefore provides value by engaging managers in the Strategy development process, by assisting management forge better, fact-based decisions, and allows managers to

quantify / qualify strategic choices and articulate strategies. This can lead to the sharpening of internal performance monitoring, and in conclusion can lead to competitive advantage and innovation.

6.4 Discussion

The research findings have shown that there is clearly a discrepancy between the theory advocated by dominant researchers in the field of Strategic Intelligence and its subcomponents. While many of the organisations surveyed indicated their belief that Strategic Intelligence and its components did in fact provide advantages to their Strategic Management and Strategic decision-making capabilities, very few had the internal capabilities to fully utilise the suggested methods. A number of respondents further indicated that they were not completely aware of the perceived benefits that Strategic Intelligence could offer, which could imply that not all organisations are aware of research being conducted by academic institutions. A high number of the organisations, however, did indicate their use of Strategic Management, Business Intelligence and to an extent Competitive Intelligence, indicating the greater awareness around these topics in main stream media.

Furthermore, it was with interest that the results for the Knowledge Management and Strategic Intelligence questions were analysed. While the average mean and standard deviation scores remained within a similar range for the questions on Strategic Management, Business Intelligence and Competitive Intelligence, the scores for Knowledge Management and Strategic Intelligence decreased to a lower average range. The results for Knowledge Management and Strategic Intelligence substantiated the observation made above that the theoretical components of the subject matter are agreed with, however, in reality they are often not formally institutionalised within organisations. The reasons for this could be simply the lack of media attention, or case studies to describe their benefits, or simply a lack of resources to sustain them.

With interest it was noted that there was a difference in the result findings provided by smaller organisations, compared to those of larger organisations (Detailed results can be viewed in Appendix F). A number of smaller organisations indicated that they did perceive the value that can be provided by the topics discussed in this research, however, these were not of priority to them due to their resource limitations and obvious smaller market scope. A number of larger organisations on the other hand, did in most instances provide higher scores for the variables

indicating the greater ability they have in providing resources, for the perceived competitive advantage gain. Due to the high competition within the Long-term Insurance industry, it is clear that organisations need to keep informed of any changes that could lead to them gaining an advantage and increased market share.

Of further interest, many of the respondents indicated that they would not be prepared to outsource their Strategic Intelligence functions, while the same number of respondents remained neutral to this possibility. A high level of confidentiality could be a reason for this finding, however, the potential remains for a lower cost solution to be developed that could be used in-house to provide the benefits organisations require. This can be further substantiated by the fact that the majority of respondents believed further research should be conducted to identify better methods of implementing Strategic Intelligence.

6.5 Future Research

The research study has resulted in the awareness of auxiliary areas which could be further refined through supplementary research. The areas identified are:

- The results of the research have shown that Strategic Intelligence has a conceptual, and empirical support to allow it to function as a Strategic Management tool, with its own management function, or department. Further research should be conducted to ascertain the feasibility of this.
- The literature survey conducted, with the substantiation by the empirical results have confirmed the perceived benefits of Strategic Intelligence as a tool in the Strategic Management Process. However, few use the consolidated intelligence provided by Strategic Intelligence as a Strategic Management tool. Further research could be conducted into the reasons for this.
- Organisations within the Long-term Insurance Industry show their belief in, but lack of commitment to Strategic Intelligence as a Strategic Management tool. Research could be conducted to confirm if this perception is valid only within this industry or prevalent across all South African industries, and why Strategic Intelligence is not used as a tool.
- Respondents indicated that they believed further research should be conducted to identify better methods of implementing Strategic Intelligence, Human resource skills

and capabilities required to conduct and analyse Strategic Intelligence, and Strategic Intelligence Systems. Further research should be conducted to create a comprehensive, yet simple Strategic Intelligence model which can easily be implemented and customised to the needs of the individual organisations.

- Further research should be conducted into the use of technology to enable effective information use and delivery. Through the creation of a single technological tool that could be used to consolidate the respective components of Strategic Intelligence into a single repository or databank, which will meet the intelligence requirements of management.

6.6 Recommendations

Through the in-depth analyses of the use of Strategic Intelligence as a Strategic Management tool in the Long-term insurance industry, the following recommendations were identified:

- Organisations should place greater emphasis on the development and application of tangible and intangible assets for use in strategic decision-making.
- Organisations should globalise their outlooks, and emphasise the sharing of knowledge across borders to withstand changes as a result of the globalisation of markets.
- Organisations should commence with the creation of an intensive and continuous executive learning aptitude, to enhance current strategic decision-making and to empower future leaders about strategic decisions and intentions with regard to their competitive landscape.
- Organisations should focus to educate all employees of the benefits of Business Intelligence, Competitive Intelligence, Knowledge Management and Strategic Intelligence.
- Organisations should broaden their approach to Strategic Intelligence gathering and analysis, and the integration of the intelligence into strategic decision-making.
- Organisations should enhance their internal Strategic Intelligence capabilities through the creation of formalised departments, processes and/or functions.

- Organisations should utilise the methods and tools provided by Strategic Intelligence to enable internal and external early warning systems.
- Organisations should place more prominence on intelligence-related information for strategic decision makers; however, a greater dispersion across all levels is required.
- Executives who took part in this research understand the key role strategic intelligence can play in achieving competitive advantage and future success, and should therefore continue to find ways to improve their approach to strategic intelligence.

6.7 Conclusion

Strategic Intelligence is identified as having the correct information available for the correct people as to allow them to make informed business decisions about the future of their organisations. Without this information, it is believed that, it would be difficult for employees to make the correct decisions to achieve and maintain market leadership (Marchand and Hykes, 2007).

The value of Strategic Intelligence can therefore be seen through the improvement of the capabilities of managers and workers to learn about potential changes within their business or industry environment without having to redefine intelligence on which previous decisions were based. With the ability to openly share their perceptions, new information and insights whenever and wherever the organisation requires such information will increase the “intelligence quotient” of all organisational managers (Tham and Kim, 2002).

Strategic Intelligence’s interest is less on the present than on the past and on the future, with a time horizon spanning two years in the past, to five to 10 years in the future. By collecting and analysing data from the past, the organisation can evaluate the success (or failure) of its strategies and those of its competitors. This will permit the organisation to better weigh its options for the future (McGonagle and Vella, 1999).

Challenges in the global economy, not to mention the challenges faced in the local South African economy, has amplified the necessity for organisations to remain one step ahead of their competitors. Lack of information, and knowledge of decisions taken by all role players within the organisations external, and often internal business environments, has led to the weakening and even failure of organisations. Worldwide, the Long-term insurance industry has undergone many

changes in its working model with changes focused on increasing the attractiveness of the industry to consumers. With the advent of technological advances that allow all consumers to shop around for the best products and pricing, and the globalisation of markets allowing organisations to compete globally, organisations are required to stay a step ahead of their competitors. To achieve this, a number of strategic decisions will need to be made in order for them to remain stable for the foreseeable future. New products, allowing consumers a greater understanding, flexibility and visibility will be required to attract new clients as well as increase market share and remain competitive.

This research proposed that through its ability to absorb sources of information, the synergy of business intelligence, competitive intelligence, and knowledge management combined to form Strategic Intelligence, will allow organisations to incorporate all of their information and intellectual capital into a single database or system which will meet the intelligence requirements of management. The results have proven that the organisation surveyed agreed with this proposition, however, did not always conform to its suggested methods.

As part of chapter one, the researcher proposed the following research statement:

The identification and utilisation of the most important factors of a Strategic Intelligence Framework will greatly enhance global corporate decision making and result in competitive advantage and constant innovation within the South African Business Environment.

The research findings have proven this statement to be theoretically true. Much of the research proved that, even if just theoretically, organisations do believe that a single model could greatly enhance decision-making resulting in competitive advantage and corporate innovation.

The purpose of this study was to identify the current use of Strategic Intelligence in the Long-term insurance industry in the South African environment. The research has achieved this, and found that while larger organisations are aware of, and does make use of certain models and methods that comprise Strategic Intelligence or its sub-components, no single organisation within the Long-term Insurance industry makes use of a holistic and comprehensive Strategic Intelligence Model. However, even without the use of such a model, the organisations surveyed are to a large extent still successful in their endeavours.

The research has, by providing a understanding of the extent in which Strategic Intelligence is utilised in the South African Long-term insurance industry, identified the benefits or problems that are experienced by executive management that have not yet implemented and used Strategic Intelligence as an input to the Strategic Management process, and identified the perceived value Strategic Intelligence could add in the decision-making process.

The research study has proven that organisations have not yet fully embraced a model for a fully cooperative global internal corporate Strategic Intelligence System or Portal that will incorporate all aspects of Strategic Intelligence into a single, easily manageable resource for management's strategic planning and decision-making process, even though it could enhance their ability to withstand the onslaught of global competitors and expand their business into new markets, protect their local market or identify potential merger or acquisition targets, and increase innovation within the organisations.

By being able to gather and execute Strategic Intelligence better than their competition, Strategic Intelligence can be considered an undeniably powerful source of competitive advantage for organisations of all sizes. By managing and utilising Strategic Intelligence to anticipate changes successfully, allowing organisations to respond to future trends or opportunities will lead to the longevity of those organisations.

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Appendices

Appendix A

Contents of a Competitor Analysis Checklist

Compiled from predefined checklists created by McGonagle and Vella (1999) and Murphy (2005)

Industry Information:

- What industry is involved?
- What is the current competitive environment
 - Industry structure
 - Number of competitors, their product lines (or range of services), and locations
 - Market shares, gross sales, and net profitability of competitors
 - Expansion potentialities of competitors
 - Important differences among competitors
 - Industry marketing, distribution, and pricing practices
 - Need for new technology
 - Barriers to entry and exit
 - Regulatory constraints
 - Potential entrants and future competitors
 - Attitude toward likelihood of new competition
 - Indirect competition

Individual Target:

- Who is it?
 - Full name/Legal Name and name(s) it trades under
 - Name or acronym commonly used
 - Headquarters address; registered office address; website and e-mail addresses
- Ultimate parent company
- Ownership and Corporate History

Individual Competitor Information:

- Who are the major owners and managers?
 - Major shareholders and partners
 - Directors and officers, their backgrounds and other business relationships
 - Corporate and management organisation: formal or informal

- How decisions are made and who makes them
- Management styles, abilities, and emphasis
- Depth, capabilities, and weaknesses of management in key functional areas
- New personnel and recent restructuring
- Corporate politics
- What products and services are offered?
 - Product lines and services currently offered
 - Current and future applications of products and services
 - Depth and breadth of products and services offered today
 - Analysis of new products and services, including impact on the market and on competition
 - Customer service policies and performance
 - History of key products and services
 - Products or services likely to be introduced, eliminated or withdrawn in the near future
 - Channels of distribution, including their strengths and weaknesses
 - Possible changes in distribution channels
- What are the sales and pricing policies?
 - Commercial, non-profit, and government sales
 - Domestic versus foreign sales
 - Seasonal and cyclical problems
 - Pricing Strategy: Who prices products and services and how?
 - Price levels and flexibility
 - Credit, discounts, incentives, consignments, any other special pricing policies
- Who makes up the sales force and who are the customers?
 - Types of Sales force: in-house versus independent sales agents
 - Organisation of sales force: by product line, by geographic market, or by end user
 - Training, capability, and compensation of sales force
 - Number of customers
 - Analysis of largest or most important customers
- How is the marketing being handled?
 - Market shares by product line, by geographic area, and by industry segment

- Marketing approaches and their current effectiveness
- Total advertising spending by type of media
- Samples of advertising, product literature, and other promotional materials
- Probable future changes in marketing direction and timing
- History of any questionable marketing practices
- What are its financial and legal positions?
 - Short- and Long-term borrowing capabilities and ability to raise equity financing
 - Sources of financing, including duration and strength of the relationship
 - Sales margin, return on assets, and return on equity
 - Profitability of key divisions, products or services
 - Sales
 - Overheads
 - Gross and operating profit margins
 - Return on sales, capital employed, total assets and equity
 - Interest payments
 - Pre-tax profit margin
 - Tax change
 - Sales and profit per employee
 - Dividend policy
 - Cash flow
 - Projections of financial position over the next two to five years
 - Comparison of profitability, cash flow, and other key ratios with those of major competitors
 - Company valuation
 - Liabilities
 - Major lawsuits and regulatory actions: probable impacts on company
- What is being done with technology, research, and development?
 - Current manufacturing methods and processes
 - High tech or low tech?
 - Stage of technological development – cutting edge, typical for industry or technological laggard
 - Key patents and proprietary technology

- Access to, use of, and dependence on outside technology or technology under licence
- Need for new technology
- Potential changes in manufacturing methods and processes
- Size and capabilities of research staff
- The rate of technological change in this industry niche
- Usual lead time between research and development breakthrough and the delivery of a product to market
- Types and levels of research and development, including current and future expenditures
- Success of research in terms of patents filed and subsequent commercial exploitation
- What personnel, resources, and facilities are available?
 - Labour force: number, cost, availability, turnover, and quality
 - Employees in each functional area, location, job grade
 - Demographic profile
 - Balance between full-time, part-time, contractors, and temporary staff
 - Extent of outsourcing
 - Educational attainments, experience, and skills of staff
 - Recent hiring activity
 - Employee morale
 - Collective bargaining/employee consultation arrangements
 - Union status and contracts
 - Raw materials: sources and availability
 - Amount of raw materials held in comparison to industry norms
 - Extent of work in progress
 - Level of finished goods held
 - Quality control programs in place or planned
 - Level and consistency of quality control
 - Manufacturing and operating costs
 - Facilities: locations, current performance, and potential
 - Size of headquarters
 - Location of other premises
 - What are they used for?

- Are premises owned, leased or rented?
 - Value of real property owned
 - Lease or rental costs
 - Age and condition of premises
- Planned improvements to existing facilities or new facilities
- Facilities closings or divestures planned
- Productivity programs
- Joint ventures, minority interests, and other investments or ownership interests
- Make and buy policies
- What are the competitor's strategies, objectives, and perceptions of itself?
 - Business philosophy and corporate strategy
 - How strategy is made and implemented
 - Targeted markets and market shares
 - Target growth rates and other financial objectives
 - Technological trends and objectives
 - IT Strategy
 - Recent improvement and restructuring initiatives and their results
 - Supply chain management structure and strategies
 - How the company sees itself
- What are the competitor's perceptions of its competitors and customers?
 - Quality of product or service
 - Pricing
 - Marketing and service capabilities and reliability
 - Management and organisation
 - Technological base and capabilities
- What are the competitor's intelligence capabilities?
 - Number of SCIP Members
 - Separate CI (or other intelligence) unit
 - Outside intelligence consultants used
 - Level of intelligence efforts
 - Targets of intelligence efforts
 - Defensive activities

Appendix B

**LIST OF REGISTERED LONG-TERM
INSURERS**

provided by

The Financial Services Board South Africa (2009)

NAME / ADDRESS	TELNO FAXNO
1 LIFE DIRECT INSURANCE LIMITED P.O. BOX 11250 JOHANNESBURG 2000 Policies: DISABILITY/HEALTH/LIFE/RECLASSIFIED RETRENCHMENT	011 489 4400 011 489 4424
ABSA LIFE LIMITED PO BOX 421 JOHANNESBURG 2000 Policies: DISABILITY/FUND/LIFE/RECLASSIFIED RETRENCHMENT/SINKING FUND	011 330 2265 011 331 1560
AFRICAN LIFE ASSURANCE COMPANY LIMITED PO Box 1941 HOUGHTON 2041 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE RECLASSIFIED RETRENCHMENT/SINKING FUND	011 359 7923 011 388 5110
AIG LIFE SOUTH AFRICA LIMITED PO BOX 31983 BRAAMFONTEIN 2017 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE/SINKING FUND	011 408 6637 011 877 1326
ALEXANDER FORBES LIFE LIMITED PO BOX 787240 SANDTON 2146 Policies: ASSISTANCE/DISABILITY/FUND/LIFE/SINKING FUND	011 269 1685 011 263 0093
ALGOA INSURANCE COMPANY LIMITED PO BOX 12270 MOFFAT PLACE 6002 Policies: ASSISTANCE/DISABILITY/HEALTH/RECLASSIFIED RETRENCHMENT	041 582 4577 041 582 3860/5
ALLAN GRAY LIFE LIMITED PO BOX 51318 V&A WATERFRONT 8001 Policies: FUND/LIFE/SINKING FUND	021 415 2300 021 415 2400
ASSUPOL LIFE PO BOX 35900 MENLO PARK 0102 Policies: DISABILITY/LIFE	012 362 2152 012 362 1726
BOE LIFE LIMITED PO BOX 149175 EAST END 4018 Policies: FUND/LIFE/SINKING FUND	031 364 1547 031 364 2935
CADIZ LIFE LIMITED PO BOX 299 SIMON'S TOWN 7995 Policies: FUND/LIFE/SINKING FUND	021 670 8300 012 657 8301
CAPITAL ALLIANCE LIFE LIMITED	011 408 2572

PO Box 10499 JOHANNESBURG 2001 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE/RECLASSIFIED RETRENCHMENT	011 408 3058
CENTRIQ LIFE INSURANCE COMPANY LIMITED PO BOX 55674 NORTHLANDS 2116 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND	011 268 6490 011 268 6495
CHANNEL LIFE LIMITED PO Box 1273 PARKLANDS 2121 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND	011 446 9834 011 446 9987
CITADEL LIFE LIMITED PO BOX 23388 CLAREMONT 7735 Policies: FUND/LIFE/SINKING FUND	021 670 9100 021 670 9178
CLIENTELE LIFE ASSURANCE COMPANY LIMITED PO Box 1316 RIVONIA 2128 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND	011 320 3284 011 884 9056
COMMUNITY LIFE INSURANCE COMPANY LIMITED PO BOX 3556 TYGERVALLEY 7536 Policies: HEALTH/LIFE	021 912 3500 021 919 0349
CONSTANTIA LIFE & HEALTH ASSURANCE COMPANY LIMITED PO BOX 3518 CRAMERVIEW 2060 Policies: ASSISTANCE/DISABILITY/HEALTH/LIFE	011 886 1488 011 789 8828
CORONATION LIFE ASSURANCE COMPANY LIMITED PO Box 993 CAPE TOWN 8000 Policies: FUND/LIFE/SINKING FUND	021 680 2000 021 680 2191
CORPCAPITAL LIFE INSURANCE LIMITED PO BOX 471917 PARKLANDS 2121 Policies: FUND/LIFE/SINKING FUND	011 916 1430 086 671 2285
COVISION LIMITED PO BOX 62438 MARSHALLTOWN JOHANNESBURG 2000 Policies: ASSISTANCE/LIFE	011 383 9999 011 875 3500
DISCOVERY LIFE LIMITED PO BOX 286722 SANDTON 2146 Policies: ASSISTANCE/DISABILITY/HEALTH/LIFE/SINKING FUND	011 529 2110 011 290 3229
GOODALL AND BOURNE ASSURANCE (PROPRIETARY) LIMITED PO BOX 2215 CAPE TOWN 8000 Policies: ASSISTANCE	021 424 8040 021 423 7995
GOODALL AND COMPANY FUNERAL ASSURANCE SOCIETY (PTY) LTD PO BOX 2215 CAPE TOWN 8000 Policies: ASSISTANCE	011 886 1488 011 789 8828
GUARDRISK LIFE LIMITED PO Box 786015 SANDTON 2146 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE/SINKING FUND	011 669 1100 011 669 2528
HANNOVER LIFE REASSURANCE AFRICA LIMITED PO Box 10842 JOHANNESBURG 2000 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND	011 481 6700 011 643 3332

<p>HOLLARD LIFE ASSURANCE COMPANY LIMITED PO BOX 87428 HOUGHTON 2041 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND</p>	<p>011 351 5107 011 351 0202</p>
<p>INVESTEC ASSURANCE LIMITED PO BOX 1655 CAPE TOWN 8000 Policies: FUND/LIFE/SINKING FUND</p>	<p>021 416 1912 021 416 2912</p>
<p>INVESTEC EMPLOYEE BENEFITS LIMITED PO BOX 785700 SANDTON 2146 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND</p>	<p>011 286 9160 011 291 6465</p>
<p>INVESTMENT SOLUTIONS LIMITED PO BOX 786055 SANDTON 2146 Policies: DISABILITY/FUND/HEALTH/LIFE/SINKING FUND</p>	<p>011 505 6130 011 263 1731</p>
<p>KGA LEWENS BEPERK PO BOX 884 BELLVILLE 7535 Policies: ASSISTANCE</p>	<p>021 946 1428/38 021 948 4443</p>
<p>LIBERTY ACTIVE LIMITED PO Box 3329 JOHANNESBURG 2000 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND</p>	<p>011 408 5511 011 408 5345</p>
<p>LIBERTY GROUP LIMITED PO Box 10499 JOHANNESBURG 2000 Policies: DISABILITY/FUND/HEALTH/LIFE/SINKING FUND</p>	<p>011 408 4033 011 408 3785</p>
<p>LION OF AFRICA LIFE ASSURANCE COMPANY LIMITED PRIVATE BAG X1 MOWBRAY 7705 Policies: ASSISTANCE/DISABILITY/FUND/LIFE/SINKING FUND</p>	<p>021 685 0214 021 685 0218</p>
<p>M CUBED LIFE LIMITED PO Box 41259 CRAIGHALL 2024 Policies: FUND/LIFE/SINKING FUND</p>	<p>080 011 7180 011 880 8844</p>
<p>MCLIFE ASSURANCE COMPANY LIMITED PO Box 794 DURBAN 4000 Policies: ASSISTANCE/DISABILITY/HEALTH/LIFE/RECLASSIFIED RETRENCHMENT</p>	<p>031 268 9300 031 207 7291</p>
<p>MEDSCHEME LIFE ASSURANCE COMPANY LIMITED PO BOX 67335 BRYANSTON 2021 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND</p>	<p>011 510 2914 011 510 2928</p>
<p>METROPOLITAN LIFE INTERNATIONAL LIMITED PO BOX 2212 BELLVILLE 7535 Policies: LIFE/SINKING FUND</p>	<p>021 940 5911 021 940 5730</p>
<p>METROPOLITAN LIFE LIMITED PO Box 2212 BELLVILLE 7535 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND</p>	<p>021 940 5911 021 940 6971</p>
<p>METROPOLITAN ODYSSEY LIMITED PO Box 4045 TYGER VALLEY 7536 Policies: DISABILITY/LIFE</p>	<p>021 917 3310 021 917 3480</p>
<p>MOMENTUM ABILITY LIMITED</p>	<p>012 673 7439</p>

PO BOX 7400 CENTURION 0046 Policies: ASSISTANCE/DISABILITY/FUND/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND	012 663 6285
MOMENTUM GROUP LIMITED PO BOX 7400 CENTURION 0046 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE/ RECLASSIFIED RETRENCHMENT/SINKING FUND	0860 114 930 012 675 3911
NEDGROUP LIFE ASSURANCE COMPANY LIMITED PO BOX 149175 EAST END 4018 Policies: DISABILITY/FUND/LIFE/RECLASSIFIED RETRENCHMENT/SINKING FUND	031 3641547 031 3642935
NESTLIFE ASSURANCE CORPORATION LIMITED PO BOX 2919 HOUGHTON 2041 Policies: ASSISTANCE/DISABILITY/HEALTH/LIFE/RECLASSIFIED RETRENCHMENT	011 783 9112 011 783 9262
NETCARE LIFE LIMITED PRIVATE BAG X34 BENMORE 2010 Policies: DISABILITY/FUND/HEALTH/LIFE	011 254 1939 011 217 9809
NEW ERA LIFE INSURANCE COMPANY LIMITED PO Box 31890 BRAAMFONTEIN 2017 Policies: ASSISTANCE/FUND/LIFE	011 783 9500 011 783 9909
NIB LIFE ASSURANCE COMPANY LIMITED PO BOX 149175 EAST END 4018 Policies: FUND/LIFE/SINKING FUND	031 364 1547 031 364 2935
OLD MUTUAL ALTERNATIVE RISK TRANSFER LIMITED PO BOX 455 CAPE TOWN 8000 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND	021 509 9111 021 509 4444
OLD MUTUAL LIFE ASSURANCE COMPANY (SOUTH AFRICA) LIMITED PO Box 66 CAPE TOWN 8000 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND	021 504 2004 021 509 3883
ONDERLINGE VERSEKERINGSGENOOTSKAP AVBOB Posbus 1661 PRETORIA 0001 Policies: ASSISTANCE/DISABILITY/LIFE	012 303 1256 012 303 1276
PINNAFRICA LIFE LIMITED PO BOX 98758 SLOANE PARK 2052 Policies: ASSISTANCE/DISABILITY/LIFE/RECLASSIFIED RETRENCHMENT	011 244 1300 011 244 1301
PRESCIENT LIFE LIMITED PO BOX 31142 TOKAI 7966 Policies: FUND/LIFE/SINKING FUND	021 700 3600 021 700 3700
PROFESSIONAL PROVIDENT SOCIETY INSURANCE COMPANY LIMITED PO BOX 1089 HOUGHTON 2041 Policies: DISABILITY/HEALTH/LIFE	011 644 4310 011 644 4641
PROSPERITY LIFE LIMITED PO BOX 68871 HIGHVELD PARK 0169 Policies: ASSISTANCE/DISABILITY/FUND/LIFE	012 685 5000 012 685 5199
PSG FUTUREWEALTH LIMITED PO BOX 1273 PARKLANDS 2121 Policies: FUND/LIFE/SINKING FUND	011 560 0000 011 446 9987

REAL PEOPLE ASSURANCE COMPANY LIMITED PO BOX 19610 TECOMA 5214 Policies: ASSISTANCE/DISABILITY/FUND/LIFE/RECLASSIFIED RETRENCHMENT & SINKING FUND	043 702 4600 086 621 6841
REGENT LIFE ASSURANCE COMPANY LIMITED PO BOX 122 BEDFORDVIEW 2008 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND	011 607 0600 011 607 4623
RELYANT LIFE ASSURANCE COMPANY LIMITED PO BOX 47353 GREYVILLE DURBAN 4023 Policies: ASSISTANCE/DISABILITY/HEALTH/LIFE/RECLASSIFIED RETRENCHMENT	011 607 1000 011 607 1411
RENTMEESTER VERSEKERAARS BEPERK PO BOX 10499 JOHANNESBURG 2001 Policies: ASSISTANCE/DISABILITY/FUND/LIFE/RECLASSIFIED RETRENCHMENT	011 408 2572 011 408 3058
RGA REINSURANCE COMPANY OF SOUTH AFRICA LIMITED 8TH FLOOR, LETTERSTEDT HOUSE FEDSURE ON MAIN CNR COMPGROUND & MAIN ROADS NEWLANDS, CAPE Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE & RECLASSIFIED RETRENCHMENT/SINKING FUND	021 670 5999 021 670 5960
RMA LIFE ASSURANCE COMPANY LTD PO Box 61413 MARSHALLTOWN 2107 Policies: ASSISTANCE/LIFE	011 497 6600 011 836 5548
RMB STRUCTURED LIFE LIMITED PO BOX 652659 BENMORE 2010 Policies: ASSISTANCE/DISABILITY/LIFE/RECLASSIFIED RETRENCHMENT/SINKING FUND	011 685 7600 011 784 9858
SAAMBOU LEWENSVERSEKERAARS BEPERK PO BOX 10499 JOHANNESBURG 2001 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE/RECLASSIFIED RETRENCHMENT & SINKING FUND	011 408 2572 011 408 3058
SAFRICAN INSURANCE COMPANY LIMITED PO Box 616 JOHANNESBURG 2000 Policies: ASSISTANCE/DISABILITY/LIFE	011 332 0524 011 332 0620
SAGE LIFE LIMITED PO BOX 7400 CENTURION 0046 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE/SINKING FUND	0860 114 930 012 675 3911
SAHL LIFE ASSURANCE COMPANY LIMITED PO BOX 3918 DURBAN 4000 Policies: DISABILITY/LIFE	031 560 5416 086 681 9570
SANLAM CUSTOMISED INSURANCE LIMITED PO BOX 1 SANLAMHOF 7532 Policies: ASSISTANCE/DISABILITY/LIFE	021 947 9111 021 670 4651
SANLAM LIFE INSURANCE LIMITED Posbus 1 SANLAMHOF 7532 Policies: DISABILITY/FUND/HEALTH/LIFE/RECLASSIFIED RETRENCHMENT/SINKING FUND	021 947 9111 021 947 8066
SEKUNJALO LIFE ASSURANCE LIMITED POSTNET SUITE 96 PRIVATE BAG X3 PLUMSTEAD 7801 Policies: ASSISTANCE/DISABILITY/FUND/LIFE	021 713 8500 021 713 8597
SENTRY ASSURANCE OF SOUTH AFRICA LIMITED	011 359 7816

PO Box 1941 HOUGHTON 2041 Policies: ASSISTANCE/LIFE	011 388 5113
STANDARD GENERAL INSURANCE COMPANY LIMITED, THE PRIVATE BAG X170 HALFWAY HOUSE 1685 Policies: ASSISTANCE/DISABILITY/LIFE/RECLASSIFIED RETRENCHMENT	011 256 9000 011 256 9161
STANLIB MULTI-MANAGER LIMITED POSTNET SUITE 245 PRIVATE BAG X1 MELROSE ARCH 2076 Policies: FUND/LIFE/SINKING FUND	011 448 6004 011 448 6669
STRATEGIC INVESTMENT SERVICE LIFE COMPANY LIMITED P.O BOX 44604 CLAREMONT WESTRN CAPE 7735 Policies: LIFE/SINKING FUND	021 670 7800 021 683 2831
SUPERFLEX LIMITED P O BOX 786055 SANDTON 2146 Policies: FUND/LIFE	011 505 6130 011 505 6490
SWISS RE LIFE AND HEALTH AFRICA LIMITED PO BOX 27709 PARKVIEW 2122 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE/SINKING FUND	011 489 5600 011 484 2744
SYGNIA LIFE LIMITED PO BOX 51591 WATERFRONT 8002 Policies: FUND/LIFE/SINKING FUND	021 446 4940 021 446 4950
TEN-50-SIX LIFE LIMITED PO BOX 13567 MOWBRAY 7705 Policies: FUND	021 442 4401 021 442 4440
UNION LIFE LIMITED PO Box 1781 DURBANVILLE 7551 Policies: ASSISTANCE/DISABILITY/LIFE	021 975 1010 021 976 5920
UNIVERSAL ASSURANCE COMPANY LIMITED PO Box 1941 HOUGHTON 2041 Policies: LIFE	011 359 7816 011 388 5113
ZURICH LIFE SA LIMITED PO BOX 61489 MARSHALLTOWN 2107 Policies: ASSISTANCE/DISABILITY/FUND/HEALTH/LIFE/SINKING FUND	011 540 4092 011 540 4444

Appendix C

Letter to Survey Participants and Questionnaire



To whom it may concern,

THE USE OF STRATEGIC INTELLIGENCE IN STRATEGIC DECISION MAKING SURVEY: 2009

The past two decades has seen a radical shift in the basic foundations of how business is conducted. The globalisation of markets and production has resulted in national markets being integrated into a single global market trading in global products. The shift has been strengthened through the declining of trade barriers and fundamental developments in communication, information and transportation technologies. Globalisation has resulted in greater world output, foreign investment, greater imports and exports and immense competitive pressures both between nations and industries.

Worldwide, the Long-term Insurance industry has undergone many changes in its working model, with changes focused on increasing the attractiveness of the industry to consumers. With the advent of technological advances that allow all consumers to shop around for the best products and pricing, and the globalisation of markets allowing organisations to compete globally, organisations are required to stay a step ahead of their competitors.

To achieve this, Long-term Insurance organisations are facing many challenges, and a number of strategic decisions will need to be made for them to remain stable for the infinite future. New products, allowing consumers a greater understanding, flexibility and visibility will be required to attract new clients as well as increase market share and remain competitive.

Given this background, Mr J-P Kruger a M Com student at the University of South Africa is conducting research in an endeavour to explore the extent to which Strategic Intelligence is currently utilised within the South African Long-term Insurance industry and whether it can be used to identify opportunities or threats within the global environment for South African organisations to remain competitive, create greater innovation, and achieve corporate advantage.

In order to conduct this research, a survey is necessary to be conducted to gain an understanding of the use of Strategic Intelligence within local organisations. Your organisation has consequently been selected for inclusion in this research. We would appreciate it if you could complete the questionnaire. Such an endeavour will undoubtedly contribute to and improve the understanding of the use of Strategic Intelligence within the local industry.

The questionnaire has been designed for easy completion and should take no longer than **20 minutes** to complete. Your willingness to participate in this survey would be greatly appreciated. The questionnaire consists of the following four parts:

- **Part 1** explains the purpose of the research and focus of the questionnaire, providing definitions for key topics addressed in the questionnaire.
- **Part 2** focuses on information regarding your organisation. The information will be used to rank your organisation in terms of market capitalisation, and determine your organisations size and worldwide footprint.



University of South Africa
Box 392, Pretoria, 0003, South Africa
<http://www.unisa.ac.za>

- **Part 3** focuses on Strategic Intelligence and has been divided into the following five sections. The different sections in part 3 examine the following subjects:

- **Section 1:** Strategic Management and Strategic Decision-Making activities within your organisation.
- **Section 2:** The understanding and use of Business Intelligence within your organisation.
- **Section 3:** The understanding and use of Competitive Intelligence within your organisation.
- **Section 4:** The understanding and use of Knowledge Management within your organisation.
- **Section 5:** The understanding and use of Strategic Intelligence within your organisation.

- **Part 4** consists of general questions regarding the person completing the questionnaire.

Your complete honesty and frankness in completing this questionnaire would be appreciated. Your response will be treated with the utmost confidentiality. Should you experience any difficulties with the questionnaire, do not hesitate to contact Mr J-P Kruger at the following telephone number: **082 888 8393** or by email at jpk@darkrealm.co.za.

We truly appreciate your valuable contribution to this research into the use of Strategic Intelligence as a tool within the South African Life Insurance industry.

Yours Faithfully,

Prof René Pellissier (PhD(Eng), MBA, MSc(Math Stats))
CoD: Dept of Business Management, UNISA
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+27 (0)12 429 2548(t)
+27 (0)12 429-8558 (f)



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Box 392, Pretoria, 0003, South Africa
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THE USE OF STRATEGIC INTELLIGENCE IN STRATEGIC DECISION MAKING QUESTIONNAIRE

PART 1

PURPOSE:

The primary aim of the research being conducted is to explore the extent to which Strategic Intelligence is currently utilised within the South African Long-term insurance industry and whether it can be used to identify opportunities or threats within the global environment to remain competitive, create greater innovation, and corporate advantage.

In order to conduct this research it is necessary to obtain results. The information collected through the use of this questionnaire will be used to identify the use of Strategic Intelligence within South African organisations, and provide an insight into the information gathering processes currently utilised by South African organisations. Your organisation has consequently been selected for inclusion in this research, the results which will undoubtedly contribute to and improve the understanding of the Strategic Intelligence capabilities in South African organisations.

The personal and organisational information gathered in this questionnaire will be used for ranking purposes, and to contact and provide you with feedback.

ALL THE INFORMATION YOU PROVIDE WILL BE TREATED IN THE STRICTEST CONFIDENCE.

The questionnaire should take you about **20** minutes to complete. Please answer all the questions provided.

I hope you find completing this questionnaire enjoyable and thank you for taking the time to help me. A summary of the findings will be provided to you. If you have any queries or would like further information regarding this project, please contact J-P Kruger by telephone on 082 888 8393 or by email at jpk@darkrealm.co.za.

DEFINITIONS:

Strategic Management	<i>The set of decisions and actions that result in the formulation and implementation of plans designed to achieve a company's objectives.</i>
Strategic Decision-Making	<i>Strategic decision-making is an instantaneous action, a choice between multiple known alternatives, made by individuals or groups.</i>
Business Intelligence	<i>Business Intelligence is an umbrella term that combines architecture, tools, databases, analytical tools, applications, and methodologies that give business managers and analysts the ability to conduct appropriate analysis on historical and current business data.</i>
Competitive Intelligence	<i>A systematic and ethical program for gathering, analysing, and managing external information that can affect a company's plans, decisions, and operations.</i>

Knowledge Management	<i>The systematic and active management of ideas, information, and knowledge residing in an organisation's employees.</i>
Strategic Intelligence	<p><i>Strategic Intelligence can be identified as what a company needs to know of its business environment to enable it to gain insight into its present processes, anticipate and manage change for the future, design appropriate strategies that will create business value for customers, and improve profitability in current and new markets.</i></p> <p><i>Strategic Intelligence is a means of providing the highest levels of management, information on the competitive, economic, and political environment in which the organisation operates currently, and could operate in, in the future, to support strategic decision-making.</i></p>

PART 2

ORGANISATIONAL INFORMATION:

Please enter the appropriate details or tick the correct option:

2.1 Name of your Organisation:

.....

2.2 Number of Employees:

Less than 50	<input type="checkbox"/>
51 – 500	<input type="checkbox"/>
More than 500	<input type="checkbox"/>

2.3 Geographical Exposure of operations (Please tick any or all blocks that are relevant):

Region	Active	Region	Active
South Africa	<input type="checkbox"/>	Great Britain	<input type="checkbox"/>
Africa	<input type="checkbox"/>	Western Europe	<input type="checkbox"/>
North America	<input type="checkbox"/>	Eastern Europe	<input type="checkbox"/>
South America	<input type="checkbox"/>	Australasia	<input type="checkbox"/>

2.4 Audited Annual Turnover (ZAR) during the 2008 financial year:

.....

2.5 Market Capitalisation (ZAR) for the 2008 financial year:

.....

PART 3**SECTION 1: STRATEGIC MANAGEMENT AND STRATEGIC DECISION-MAKING:**

Please indicate to what extent you agree with the following statements regarding your organisation's Decision-making activities on a scale of 1 to 5, where 1 equals strongly disagree and 5 equals strongly agree.

1	2	3	4	5
Strongly Disagree				Strongly Agree

		1	2	3	4	5
3.1.1	We utilise a formalised Strategic Management Process.					
3.1.2	Our organisation recognises Strategic Management as a necessary activity for business.					
3.1.3	Our organisational views information as having strategic value.					
3.1.4	We believe that good strategy hinges on having timely, relevant and high quality information.					
3.1.5	Our organisation provides its managers with critical and relevant information for strategic decision making.					
3.1.6	We believe our organisation provides our managers with access to information that provides a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability ,and the implications of trends in these areas for the firm.					

INTELLIGENCE QUESTIONS:**SECTION 2: BUSINESS INTELLIGENCE:**

Please indicate to what extent you agree with the following statements regarding your organisation's Business Intelligence activities on a scale of 1 to 5, where 1 equals strongly disagree and 5 equals strongly agree.

1	2	3	4	5
Strongly Disagree				Strongly Agree

		1	2	3	4	5
3.2.1	We collect and utilise Business Intelligence in decision making.					
3.2.2	Our Business Intelligence is valid, reliable and actionable.					
3.2.3	The availability of BI has increased the effectiveness of managerial decision making.					
3.2.4	We have a predefined dashboard view of our organisation.					
3.2.5	We believe there is value in having a predefined dashboard view of our organisation.					

3.2.6 What Software applications does your organisation make use of to gather and generate Business Intelligence?

Please list the application name and Software Provider below and if possible please justify your choice:

.....

SECTION 3: COMPETITIVE INTELLIGENCE:

Please indicate to what extent you agree with the following statements regarding your organisation's Competitive Intelligence activities on a scale of 1 to 5, where 1 equals strongly disagree and 5 equals strongly agree.

1	2	3	4	5
Strongly Disagree				Strongly Agree

		1	2	3	4	5
3.3.1	Our organisation has a formal Competitive Intelligence function (which utilises a standardised Competitive Intelligence Process or framework).					
3.3.2	Our organisation makes use of Competitive Intelligence in decision-making.					
3.3.3	Our Competitive Intelligence is created and distributed to management in a timely fashion.					
3.3.4	Our organisation utilises external sources of information for market research (research companies).					
3.3.5	We evaluate the reliability and accuracy of our sources of information.					
3.3.6	We analyse our competitors and have up to date profiles of them.					
3.3.7	We are up to date with emerging technologies in our field of business and the benefits/features of these technologies.					
3.3.8	Our organisation is cognisant of new and pending government legislation and legislative trends that impact our organisation.					

3.3.9 Which of the following are important sources for the collection of Competitive Intelligence Information?

Please consider all of the options. Please make the appropriate tick for each valid source.

Collection Method	Usage	Collection Method	Usage
--------------------------	--------------	--------------------------	--------------

a	Corporate Websites		g	Promotional Material	
b	Research Reports		h	Analysis of Competitors Products	
c	Exhibitions/Road shows/Trade Shows		i	Corporate Annual/Quarterly Reports	
d	Customers		j	Distributers	
e	Sales Department		k	Suppliers	
f	Industry Periodicals		l	Internet	

3.3.10 Which of the following Analytical Methods or Models are used within your organisation to generate Competitive Intelligence?

Please consider all of the options. Please make the appropriate tick for each valid analytical method or model.

Analytical Method		Usage	Analytical Method		Usage
a	Blind-spot Analysis		n	Issue Analysis	
b	Boston Consulting Group Growth/Share Portfolio Matrix		o	Macro-environmental (STEEP) Analysis	
c	Competitor Analysis		p	Management Profiling	
d	Customer Segmentation Analysis		q	Patent Analysis	
e	Customer Value Analysis		r	Product Life cycle	
f	Experience Curve Analysis		s	S-Curve (Technology Life Cycle) Analysis	
g	Financial Ratio and Statement Analysis		t	Scenario Analysis	
h	Financial Analysis and Valuation		u	Stakeholder Analysis	
i	Functional Capability and Resource Analysis		v	Strategic Group Analysis	
j	GAP Analysis		w	Sustainable Growth Rate	

k	General Electric Business Screen Matrix		x	SWOT Analysis	
l	Growth Vector Analysis		y	Value Chain Analysis	
m	Industry Analysis				

z Other – Please elaborate:

.....

3.3.11 Which of the following methods do you currently use to distribute and present intelligence findings?

Please consider all of the options. Please make the appropriate tick for each valid method.

Distribution and Presentation Method		Usage	Distribution and Presentation Method		Usage
a	Customer/Competitor/Supplier Profiles.		g	Competitor Benchmarking	
b	Market or Industry Audits		h	Warning Alerts	
c	Technical Assessments		i	E-mail	
d	Reports		j	Personal Delivery	
e	Presentations		k	Briefings	
f	Central Database		l	Newsletters	

3.3.12 Which Software Applications do you use to conduct, create, analyse or store Competitive Intelligence? (If any)

Please list the application name and Software Provider below and if possible please justify your choice:

.....

SECTION 4: KNOWLEDGE MANAGEMENT:

Please indicate to what extent you agree with the following statements regarding your organisation’s Knowledge Management activities on a scale of 1 to 5, where 1 equals strongly disagree and 5 equals strongly agree.

1	2	3	4	5
Strongly Disagree				Strongly Agree

		1	2	3	4	5
3.4.1	We believe that Knowledge Management assists in creating value out of our organisations intangible assets.					
3.4.2	We view Knowledge as a strategic tool.					
3.4.3	Our organisational culture is conducive to the sharing of knowledge.					
3.4.4	Our organisation benefits from the processes created to contribute knowledge.					
3.4.5	Knowledge and Intelligence is contributed and accessed by employees by means of a central intelligence repository (which acts as a pool of corporate information).					
3.4.6	Employees are aware of the benefits of Business Intelligence and Competitive Intelligence.					
3.4.7	Employees are personally responsible for the transfer and storage of knowledge in their area of speciality.					
3.4.8	Employees regularly report information they have found.					
3.4.9	Our organisation has the technical infrastructure to enable knowledge sharing.					
3.4.10	Our organisation has a document management system in place.					
3.4.11	We have a process in place for the conversion of individually held competence to systems, tools, or templates.					
3.4.12	Our organisation stores Intellectual Capital.					
3.4.13	We conduct an internal knowledge audit (e.g. identify and catalogue what people know, what reports they have, publications).					

3.4.14 What Software applications does your organisation make use of as part of your Knowledge Management System?

Please list the application name and Software Provider below:

.....

SECTION 5: STRATEGIC INTELLIGENCE:

Please indicate to what extent you agree with the following statements regarding your organisation’s Strategic Intelligence activities on a scale of 1 to 5, where 1 equals strongly disagree and 5 equals strongly agree.

1	2	3	4	5
Strongly Disagree			Strongly Agree	

		1	2	3	4	5
3.5.1	Our organisation has a Strategic Intelligence process in place.					
3.5.2	Our organisation consolidates all our Intelligence into a single Intelligence repository.					
3.5.3	We fuse our Business Intelligence, Competitive Intelligence and Knowledge Management (To create Strategic Intelligence) for use in decision-making.					
3.5.4	We believe that Strategic Intelligence, as a collective, provides better information input to decision makers.					
3.5.5	All Intelligence is checked for accuracy.					
3.5.6	We have a long-term Strategic Intelligence plan.					
3.5.7	We use Strategic Intelligence at all levels of decision-making.					
3.5.8	Managers use Strategic Intelligence in their strategic planning and decision-making.					
3.5.9	We believe Strategic Intelligence assists managers forge better, fact-based decisions.					
3.5.10	Strategic Intelligence engages managers in the Strategy development process.					
3.5.11	Strategic Intelligence can assist managers to quantify / qualify strategic choices and articulate strategies.					
3.5.12	Key Decision makers are surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs.					
3.5.13	Strategic Intelligence forms part of our Performance Appraisal review process.					
3.5.14	Strategic Intelligence can sharpen internal performance monitoring.					
3.5.15	Strategic Intelligence is a continuous activity in our organisation.					
3.5.16	Our organisation has dedicated human resources to maintain our Strategic Intelligence function or process.					

3.5.17	We would consider outsourcing our Strategic Intelligence function.					
3.5.18	Our Strategic Intelligence requirements are linked to our strategic objectives and our long term goals.					
3.5.19	The use of Strategic Intelligence leads to competitive advantage and innovation.					
3.5.20	Strategic Intelligence enhances decision-making.					
3.5.21	Strategic Intelligence plays a critical role in the Strategic Management Process.					

3.5.22 Please indicate whether Strategic Intelligence is used by your organisation when considering the following (Please mark all appropriate with an tick):

		Used
a	Competitive advantage (E.g.: What do I need to know about our external environment to give me a competitive advantage in the market)	
b	Early Warning Systems (E.g.: What are the threats and opportunities that exist in our external environment)	
c	Market Entry (E.g.: How can we enter a new market?)	
d	New Product Development (E.g.: We are developing a new product idea – how will competitors and customers react if it is launched?)	
e	Pricing (E.g.: A competitor has cut its prices to a level that is would be uneconomic for us to match. How do we interpret this and how do we react?)	
f	Key Account Management (E.g.: Are competitors stealing our major accounts?)	

g Other – Please specify:

.....

3.5.23 To what extent does your organisation use Strategic Intelligence as an input to decision-making at the following levels?

Please indicate on a scale of 1 to 5, where 1 equals hardly used and 5 equals often used.

		1	2	3	4	5
a	Strategic (Top Management - Corporate Level)					
b	Tactical (Middle Management – Business , Functional or Department Level)					

c	Operational (Lower Management – Day to Day)					
----------	---	--	--	--	--	--

3.5.24 What impact does the use of Strategic Intelligence have on the following levels of your organisation?

Please indicate on a scale of 1 to 5, where 1 equals no impact and 5 equals high impact.

		1	2	3	4	5
a	Strategic (Top Management - Corporate Level)					
b	Tactical (Middle Management – Business , Functional or Department Level)					
c	Operational (Lower Management – Day to Day)					

3.5.25 Do you believe further research should be conducted to identify better methods of implementing Strategic Intelligence in terms of the following:

Please indicate your opinion by means of a Yes/No answer.

		Yes	No
a	Human Resource Skills / Capabilities.		
b	Strategic Intelligence Methods and Models.		
c	Strategic Intelligence Systems.		

Please elaborate, if you have any additional comments.

.....

3.4.26 Does your organisation make use of any Strategic Intelligence Software Applications or methods/models over and above the systems listed in the previous questions?

Please list the Application name and Software Provider below and if possible please justify your choice:

.....

PART 4

Personal Details of Person Completing the Questionnaire:

4.1 Name:

4.2 Functional Area of Involvement:

4.3 Position in Organisation:

4.4 Qualification(s) and institution(s) where obtained:
.....
.....
.....

4.5 Contact Number:

4.6 E-mail Address:

4.7 Further Comments or Questions regarding the topic or questionnaire:
.....
.....
.....
.....
.....

ALL THE INFORMATION YOU PROVIDE WILL BE TREATED IN THE STRICTEST CONFIDENCE.

Thank you for taking the time to complete this questionnaire. If you have any queries please do not hesitate to contact J-P Kruger by telephone on 082 888 8393 or by email at jpk@darkrealm.co.za

Thank you for your effort in answering this questionnaire.

Appendix D

Survey Participants

The following participants indicated their interest in participating in the survey when contacted, however did not complete the questionnaire within the allotted timeframe.

NAME	Willing to Participate	Reminders
ABSA LIFE LIMITED	Yes	5
AFRICAN UNITY INSURANCE LIMITED	Yes	6
AIG LIFE SOUTH AFRICA LIMITED	Yes	6
ALLAN GRAY LIFE LIMITED	Yes	6
ASSUPOL LIFE	Yes	6
CADIZ LIFE LIMITED	Yes	3
CENTRIQ LIFE INSURANCE COMPANY LIMITED	Yes	5
CHANNEL LIFE LIMITED	Yes	5
CONSTANTIA LIFE & HEALTH ASSURANCE COMPANY LIMITED	Yes	3
GUARDRISK LIFE LIMITED	Yes	5
LION OF AFRICA LIFE ASSURANCE COMPANY LIMITED	Yes	5
NESTLIFE ASSURANCE CORPORATION LIMITED	Yes	5
NETCARE LIFE LIMITED	Yes	5
NEW ERA LIFE INSURANCE COMPANY LIMITED	Yes	3
OUTSURANCE LIFE INSURANCE COMPANY LIMITED	Yes	5
PINNAFRICA LIFE LIMITED (CADIF)	Yes	5
PRESCIENT LIFE LIMITED	Yes	5
PROFESSIONAL PROVIDENT SOCIETY INSURANCE COMPANY LIMITED	Yes	3
REAL PEOPLE ASSURANCE COMPANY LIMITED	Yes	5
REGENT LIFE ASSURANCE COMPANY LIMITED	Yes	5
RMA LIFE ASSURANCE COMPANY LTD	Yes	5
SAFRICAN INSURANCE COMPANY LIMITED	Yes	4
SWISS RE LIFE AND HEALTH AFRICA LIMITED	Yes	5
UNION LIFE LIMITED	Yes	5
ZURICH LIFE SA LIMITED	Yes	4

The following participants completed the questionnaire:

NAME
BOE LIFE LIMITED

NEDGROUP LIFE ASSURANCE COMPANY LIMITED
NIB LIFE ASSURANCE COMPANY LIMITED
CITADEL LIFE LIMITED
CLIENTELE LIFE ASSURANCE COMPANY LIMITED
COVISION LIMITED
DISCOVERY LIFE LIMITED
FEDGROUP LIFE LIMITED
HANNOVER LIFE REASSURANCE AFRICA LIMITED
HOLLARD LIFE ASSURANCE COMPANY LIMITED
JDG MICRO LIFE LIMITED
LIBERTY ACTIVE LIMITED
LIBERTY GROUP LIMITED
LIBERTY GROWTH LIMITED
CAPITAL ALLIANCE LIFE LIMITED
MCLIFE ASSURANCE COMPANY LIMITED
MEDSCHEME LIFE ASSURANCE COMPANY LIMITED
METROPOLITAN LIFE INTERNATIONAL LIMITED
METROPOLITAN LIFE LIMITED
METROPOLITAN ODYSSEY LIMITED
MOMENTUM ABILITY LIMITED
MOMENTUM GROUP LIMITED
OLD MUTUAL ALTERNATIVE RISK TRANSFER LIMITED
OLD MUTUAL LIFE ASSURANCE COMPANY (SOUTH AFRICA) LIMITED
PSG FUTUREWEALTH LIMITED
RESOLUTION LIFE LIMITED
RMB STRUCTURED LIFE LIMITED
SAHL LIFE ASSURANCE COMPANY LIMITED
SANLAM CUSTOMISED INSURANCE LIMITED
SANLAM DEVELOPING MARKETS LIMITED
SANLAM LIFE INSURANCE LIMITED
SENTRY ASSURANCE OF SOUTH AFRICA LIMITED
UNIVERSAL ASSURANCE COMPANY LIMITED
STANLIB MULTI-MANAGER LIMITED
STRATEGIC INVESTMENT SERVICE LIFE COMPANY LIMITED

The following participants indicated that they were not directly involved in the Long-Term insurance industry but used their licence to provide additional services to their clients:

NAME
INVESTEC ASSURANCE LIMITED
INVESTEC EMPLOYEE BENEFITS LIMITED
TEN-50-SIX LIFE LIMITED
STANDARD GENERAL INSURANCE COMPANY LIMITED, THE

The following participants did not want to participate in the survey, mostly due to lack of resources to complete the questionnaire:

NAME
ALEXANDER FORBES LIFE LIMITED
SUPERFLEX LIMITED
COMMUNITY LIFE INSURANCE COMPANY LIMITED
CORONATION LIFE ASSURANCE COMPANY LIMITED
GOODALL AND BOURNE ASSURANCE (PROPRIETARY) LIMITED
GOODALL AND COMPANY FUNERAL ASSURANCE SOCIETY (PTY) LTD
ONDERLINGE VERSEKERINGSGENOOTSKAP AVBOB
INVESTMENT SOLUTIONS LIMITED
KGA LEWENS BEPERK
PROSPERITY LIFE LIMITED
SYGNIA LIFE LIMITED

The following organisations were no longer trading at time of survey:

NAME
CORPCAPITAL LIFE INSURANCE LIMITED
M CUBED LIFE LIMITED
SAAMBOU LEWENSVERSEKERAARS BEPERK

The following participant indicated their interest in participating but decided that due to them being relatively new to the industry, they did not feel they could add value:

NAME
1 LIFE DIRECT INSURANCE LIMITED

The following organisations were unable to provide a contact person to discuss the survey with:

NAME
RELYANT LIFE ASSURANCE COMPANY LIMITED
RGA REINSURANCE COMPANY OF SOUTH AFRICA LIMITED
SEKUNJALO LIFE ASSURANCE LIMITED

Appendix E

Variable Frequency Data

2.2: Number of employees	Number of respondents	Percentage of respondents
Less than 50	6	27.3
50 - 500	8	36.4
More than 500	8	36.4
<i>Total</i>	22	100

2.3: Geographical Exposure of operations:

Region	Number of respondents
Western Europe	1
North America	2
Australasia	2
Great Britain	4
Africa	9
South Africa	21

3.1.1: We utilise a formalised Strategic Management Process	Number of respondents	Percentage of respondents
Disagree	1	4.5
Neutral	5	22.7
Agree	11	50
Strongly agree	5	22.7
<i>Total</i>	22	100

3.1.2: Our organisation recognises Strategic Management as a necessary activity for business	Number of respondents	Percentage of respondents
Neutral	3	13.6
Agree	10	45.5
Strongly agree	9	40.9
<i>Total</i>	22	100

3.1.3: Our organisational views information as having strategic value	Number of	Percentage
---	-----------	------------

	respondents	of respondents
Neutral	2	9.1
Agree	10	45.5
Strongly agree	10	45.5
<i>Total</i>	22	100

3.1.4: We believe that good strategy hinges on having timely, relevant and high quality information	Number of respondents	Percentage of respondents
Neutral	3	13.6
Agree	11	50
Strongly agree	8	36.4
<i>Total</i>	22	100

3.1.5: Our organisation provides its managers with critical and relevant information for strategic decision making	Number of respondents	Percentage of respondents
Disagree	4	18.2
Neutral	9	40.9
Agree	6	27.3
Strongly agree	3	13.6
<i>Total</i>	22	100

3.1.6: We believe our organisation provides our managers with access to information that provides a comprehensive and robust perspective on how the organisation is performing, the dynamics at play in the market place, competitor behaviour, stakeholder perceptions, resource availability ,and the implications of trends in these areas for the firm	Number of respondents	Percentage of respondents
Disagree	7	31.8
Neutral	4	18.2
Agree	9	40.9
Strongly agree	2	9.1
<i>Total</i>	22	100

3.2.1: We collect and utilise Business Intelligence in decision making	Number of respondents	Percentage of respondents
Strongly disagree	1	4.5
Disagree	3	13.6
Neutral	6	27.3
Agree	8	36.4
Strongly agree	4	18.2
<i>Total</i>	22	100

3.2.2: Our Business Intelligence is valid, reliable and actionable	Number of	Percentage
	respondents	of respondents
Strongly disagree	2	9.1
Disagree	2	9.1
Neutral	9	40.9
Agree	4	18.2
Strongly agree	5	22.7
<i>Total</i>	22	100

3.2.3: The availability of BI has increased the effectiveness of managerial decision making	Number of	Percentage
	respondents	of respondents
Strongly disagree	1	4.5
Disagree	3	13.6
Neutral	6	27.3
Agree	8	36.4
Strongly agree	4	18.2
<i>Total</i>	22	100

3.2.4: We have a predefined dashboard view of our organisation	Number of	Percentage
	respondents	of respondents
Strongly disagree	5	22.7
Disagree	5	22.7
Neutral	3	13.6
Agree	6	27.3
Strongly agree	3	13.6
<i>Total</i>	22	100

3.2.5: We believe there is value in having a predefined dashboard view of our organisation	Number of	Percentage
	respondents	of respondents
Disagree	2	9.1
Neutral	1	4.5
Agree	11	50
Strongly agree	8	36.4
<i>Total</i>	22	100

3.3.1: Our organisation has a formal Competitive Intelligence function (which utilises a standardised Competitive Intelligence Process or framework)	Number of	Percentage
	respondents	of respondents
Strongly disagree	6	27.3
Disagree	5	22.7

Neutral	6	27.3
Agree	2	9.1
Strongly agree	3	13.6
<i>Total</i>	22	100

3.3.2: Our organisation makes use of Competitive Intelligence in decision-making	Number of respondents	Percentage of respondents
Strongly disagree	2	9.1
Disagree	1	4.5
Neutral	7	31.8
Agree	9	40.9
Strongly agree	3	13.6
<i>Total</i>	22	100

3.3.3: Our Competitive Intelligence is created and distributed to management in a timely fashion	Number of respondents	Percentage of respondents
Strongly disagree	2	9.1
Disagree	6	27.3
Neutral	7	31.8
Agree	4	18.2
Strongly agree	3	13.6
<i>Total</i>	22	100

3.3.4: Our organisation utilises external sources of information for market research (research companies)	Number of respondents	Percentage of respondents
Disagree	3	13.6
Neutral	5	22.7
Agree	5	22.7
Strongly agree	9	40.9
<i>Total</i>	22	100

3.3.5: We evaluate the reliability and accuracy of our sources of information	Number of respondents	Percentage of respondents
Strongly disagree	1	4.5
Disagree	5	22.7
Neutral	7	31.8
Agree	6	27.3
Strongly agree	3	13.6
<i>Total</i>	22	100

3.3.6: We analyse our competitors and have up to date profiles of them	Number of respondents	Percentage of respondents
Disagree	6	27.3
Neutral	8	36.4
Agree	5	22.7
Strongly agree	3	13.6
<i>Total</i>	22	100

3.3.7: We are up to date with emerging technologies in our field of business and the benefits/features of these technologies	Number of respondents	Percentage of respondents
Disagree	5	22.7
Neutral	5	22.7
Agree	10	45.5
Strongly agree	2	9.1
<i>Total</i>	22	100

3.3.8: Our organisation is cognisant of new and pending government legislation and legislative trends that impact our organisation	Number of respondents	Percentage of respondents
Neutral	2	9.1
Agree	5	22.7
Strongly agree	15	68.2
<i>Total</i>	22	100

3.3.9: Important sources for the collection of competitive intelligence:

Collection method	Number of respondents
Suppliers	2
Distributors	4
Promotional Material	6
Exhibitions/Road shows/Trade Shows	8
Sales Department	11
Customers	13
Industry Periodicals	13
Internet	13
Research Reports	16
Corporate Annual/Quarterly Reports	17
Corporate Websites	19

3.3.10: Analytical methods or models used to generate competitive intelligence:

Analytical Method	Number of respondents
Blind-spot Analysis	1
Experience Curve Analysis	1
Boston Consulting Group Growth/Share Portfolio Matrix	2
Functional Capability and Resource Analysis	2
Sustainable Growth Rate	2
Product Life cycle	4
Value Chain Analysis	4
Macro-environmental (STEEP) Analysis	5
Strategic Group Analysis	5
GAP Analysis	6
Management Profiling	6
Stakeholder Analysis	6
Scenario Analysis	8
Customer Value Analysis	10
Financial Ratio and Statement Analysis	10
Financial Analysis and Valuation	13
Industry Analysis	14
Customer Segmentation Analysis	16
Competitor Analysis	18
SWOT Analysis	18

3.3.11: Methods used to distribute and present intelligence findings:

Distribution and presentation method	Number of respondents
Technical Assessments	1
Warning Alerts	3
Market or Industry Audits	4
Customer/Competitor/Supplier Profiles	6
Newsletters	6
Central Database	7
Personal Delivery	7
Briefings	7
Competitor Benchmarking	9
Reports	14

Presentations	16
E-mail	17

3.4.1: We believe that Knowledge Management assists in creating value out of our organisations intangible assets	Number of respondents	Percentage of respondents
Neutral	3	13.6
Agree	14	63.6
Strongly agree	5	22.7
Total	22	100

3.4.2: We view Knowledge as a strategic tool	Number of respondents	Percentage of respondents
Neutral	4	18.2
Agree	11	50
Strongly agree	7	31.8
Total	22	100

3.4.3: Our organisational culture is conducive to the sharing of knowledge	Number of respondents	Percentage of respondents
Disagree	5	22.7
Neutral	8	36.4
Agree	6	27.3
Strongly agree	3	13.6
Total	22	100

3.4.4: Our organisation benefits from the processes created to contribute knowledge	Number of respondents	Percentage of respondents
Strongly disagree	1	4.5
Disagree	4	18.2
Neutral	9	40.9
Agree	6	27.3
Strongly agree	2	9.1
Total	22	100

3.4.5: Knowledge and Intelligence is contributed and accessed by employees by means of a central intelligence repository (which acts as a pool of corporate information)	Number of respondents	Percentage of respondents
Strongly disagree	5	22.7

Disagree	6	27.3
Neutral	8	36.4
Agree	2	9.1
Strongly agree	1	4.5
Total	22	100

3.4.6: Employees are aware of the benefits of Business Intelligence and Competitive Intelligence	Number of respondents	Percentage of respondents
Strongly disagree	3	13.6
Disagree	7	31.8
Neutral	8	36.4
Agree	3	13.6
Strongly agree	1	4.5
Total	22	100

3.4.7: Employees are personally responsible for the transfer and storage of knowledge in their area of speciality	Number of respondents	Percentage of respondents
Strongly disagree	1	4.5
Disagree	7	31.8
Neutral	5	22.7
Agree	5	22.7
Strongly agree	4	18.2
Total	22	100

3.4.8: Employees regularly report information they have found	Number of respondents	Percentage of respondents
Strongly disagree	1	4.5
Disagree	6	27.3
Neutral	7	31.8
Agree	6	27.3
Strongly agree	2	9.1
Total	22	100

3.4.9: Our organisation has the technical infrastructure to enable knowledge sharing	Number of respondents	Percentage of respondents
Strongly disagree	5	22.7
Disagree	5	22.7
Neutral	3	13.6
Agree	8	36.4

Strongly agree	1	4.5
Total	22	100

3.4.10: Our organisation has a document management system in place	Number of respondents	Percentage of respondents
Strongly disagree	4	18.2
Disagree	4	18.2
Neutral	8	36.4
Agree	4	18.2
Strongly agree	2	9.1
Total	22	100

3.4.11: We have a process in place for the conversion of individually held competence to systems, tools, or templates	Number of respondents	Percentage of respondents
Strongly disagree	5	22.7
Disagree	9	40.9
Neutral	5	22.7
Agree	1	4.5
Strongly agree	2	9.1
Total	22	100

3.4.12: Our organisation stores Intellectual Capital	Number of respondents	Percentage of respondents
Strongly disagree	3	13.6
Disagree	6	27.3
Neutral	9	40.9
Agree	2	9.1
Strongly agree	2	9.1
Total	22	100

3.4.13: We conduct an internal knowledge audit (e.g. identify and catalogue what people know, what reports they have, publications)	Number of respondents	Percentage of respondents
Strongly disagree	9	40.9
Disagree	6	27.3
Neutral	3	13.6
Agree	3	13.6
Strongly agree	1	4.5
Total	22	100

3.5.1: Our organisation has a Strategic Intelligence process in place	Number of respondents	Percentage of respondents
Strongly disagree	1	4.5
Disagree	6	27.3
Neutral	8	36.4
Agree	5	22.7
Strongly agree	2	9.1
<i>Total</i>	22	100

3.5.2: Our organisation consolidates all our intelligence into a single intelligence repository	Number of respondents	Percentage of respondents
Strongly disagree	7	31.8
Disagree	6	27.3
Neutral	6	27.3
Agree	2	9.1
Strongly agree	1	4.5
<i>Total</i>	22	100

3.5.3: We fuse our Business Intelligence, Competitive Intelligence and Knowledge Management (to create Strategic Intelligence) for use in decision-making	Number of respondents	Percentage of respondents
Strongly disagree	5	22.7
Disagree	5	22.7
Neutral	9	40.9
Agree	2	9.1
Strongly agree	1	4.5
<i>Total</i>	22	100

3.5.4: We believe that Strategic Intelligence, as a collective, provides better information input to decision makers	Number of respondents	Percentage of respondents
Neutral	7	31.8
Agree	9	40.9
Strongly agree	6	27.3
<i>Total</i>	22	100

3.5.5: All Intelligence is checked for accuracy	Number of respondents	Percentage of respondents
Strongly disagree	3	13.6
Disagree	9	40.9
Neutral	5	22.7

Agree	2	9.1
Strongly agree	3	13.6
<i>Total</i>	22	100

3.5.6: We have a long-term Strategic Intelligence plan	Number of respondents	Percentage of respondents
Strongly disagree	3	13.6
Disagree	8	36.4
Neutral	4	18.2
Agree	4	18.2
Strongly agree	3	13.6
<i>Total</i>	22	100

3.5.7: We use Strategic Intelligence at all levels of decision-making	Number of respondents	Percentage of respondents
Strongly disagree	3	13.6
Disagree	7	31.8
Neutral	6	27.3
Agree	5	22.7
Strongly agree	1	4.5
<i>Total</i>	22	100

3.5.8: Managers use Strategic Intelligence in their strategic planning and decision-making	Number of respondents	Percentage of respondents
Strongly disagree	4	18.2
Disagree	4	18.2
Neutral	6	27.3
Agree	7	31.8
Strongly agree	1	4.5
<i>Total</i>	22	100

3.5.9: We believe Strategic Intelligence assists managers forge better, fact-based decisions	Number of respondents	Percentage of respondents
Neutral	7	31.8
Agree	10	45.5
Strongly agree	5	22.7
<i>Total</i>	22	100

3.5.10: Strategic Intelligence engages managers in the Strategy development process	Number of respondents	Percentage of respondents
Strongly disagree	2	9.1
Disagree	3	13.6
Neutral	2	9.1
Agree	9	40.9
Strongly agree	6	27.3
<i>Total</i>	22	100

3.5.11: Strategic Intelligence can assist managers to quantify / qualify strategic choices and articulate strategies	Number of respondents	Percentage of respondents
Strongly disagree	1	4.5
Disagree	1	4.5
Neutral	6	27.3
Agree	9	40.9
Strongly agree	5	22.7
<i>Total</i>	22	100

3.5.12: Key Decision makers are surveyed or interviewed to verify that the intelligence products produced for them satisfy their needs	Number of respondents	Percentage of respondents
Strongly disagree	5	22.7
Disagree	8	36.4
Neutral	4	18.2
Agree	5	22.7
<i>Total</i>	22	100

3.5.13: Strategic Intelligence forms part of our Performance Appraisal review process	Number of respondents	Percentage of respondents
Strongly disagree	12	54.5
Disagree	6	27.3
Neutral	3	13.6
Agree	1	4.5
<i>Total</i>	22	100

3.5.14: Strategic Intelligence can sharpen internal performance monitoring	Number of respondents	Percentage of respondents
Strongly disagree	1	4.5
Disagree	3	13.6
Neutral	7	31.8

Agree	7	31.8
Strongly agree	4	18.2
<i>Total</i>	22	100

3.5.15: Strategic Intelligence is a continuous activity in our organisation	Number of respondents	Percentage of respondents
Strongly disagree	6	27.3
Disagree	9	40.9
Neutral	4	18.2
Agree	2	9.1
Strongly agree	1	4.5
<i>Total</i>	22	100

3.5.16: Our organisation has dedicated human resources to maintain our Strategic Intelligence function or process	Number of respondents	Percentage of respondents
Strongly disagree	7	31.8
Disagree	8	36.4
Neutral	3	13.6
Agree	3	13.6
Strongly agree	1	4.5
<i>Total</i>	22	100

3.5.17: We would consider outsourcing our Strategic Intelligence function	Number of respondents	Percentage of respondents
Strongly disagree	6	27.3
Disagree	4	18.2
Neutral	10	45.5
Agree	2	9.1
<i>Total</i>	22	100

3.5.18: Our Strategic Intelligence requirements are linked to our strategic objectives and our long term goals	Number of respondents	Percentage of respondents
Strongly disagree	2	9.1
Disagree	5	22.7
Neutral	5	22.7
Agree	9	40.9
Strongly agree	1	4.5
<i>Total</i>	22	100

3.5.19: The use of Strategic Intelligence leads to competitive advantage and innovation	Number of respondents	Percentage of respondents
Strongly disagree	1	4.5
Disagree	1	4.5
Neutral	4	18.2
Agree	12	54.5
Strongly agree	4	18.2
<i>Total</i>	22	100

3.5.20: Strategic Intelligence enhances decision-making	Number of respondents	Percentage of respondents
Disagree	1	4.5
Neutral	5	22.7
Agree	10	45.5
Strongly agree	6	27.3
<i>Total</i>	22	100

3.5.21: Strategic Intelligence plays a critical role in the Strategic Management Process	Number of respondents	Percentage of respondents
Disagree	2	9.1
Neutral	5	22.7
Agree	10	45.5
Strongly agree	5	22.7
<i>Total</i>	22	100

3.5.22: Strategic Intelligence is used when considering the following:

Aspect	Number of respondents
Key Account Management	8
Early Warning Systems	10
Market Entry	14
Pricing	14
Competitive advantage	15
New Product Development	21

3.5.25: Further research should be conducted in terms of the following:

Aspect	Number of respondents
Strategic Intelligence Systems	16
Human Resource Skills / Capabilities	17
Strategic Intelligence Methods and Models	18

Appendix F

Descriptive Statistics

Overall Results:

Variable	n	Min	Max	Mean	Std. deviation	Variance
Section 3.1						
3.1.1	22	2	5	3.91	0.811	0.658
3.1.2	22	3	5	4.27	0.703	0.494
3.1.3	22	3	5	4.36	0.658	0.433
3.1.4	22	3	5	4.23	0.685	0.470
3.1.5	22	2	5	3.36	0.953	0.909
3.1.6	22	2	5	3.27	1.032	1.065
Section 3.2						
3.2.1	22	1	5	3.50	1.102	1.214
3.2.2	22	1	5	3.36	1.217	1.481
3.2.3	22	1	5	3.50	1.102	1.214
3.2.4	22	1	5	2.86	1.424	2.028
3.2.5	22	2	5	4.14	0.889	0.790
Section 3.3						
3.3.1	22	1	5	2.59	1.368	1.872
3.3.2	22	1	5	3.45	1.101	1.212
3.3.3	22	1	5	3.00	1.195	1.429
3.3.4	22	2	5	3.91	1.109	1.229
3.3.5	22	1	5	3.23	1.110	1.232
3.3.6	22	2	5	3.23	1.020	1.041
3.3.7	22	2	5	3.41	0.959	0.920
3.3.8	22	3	5	4.59	0.666	0.444
Section 3.4						
3.4.1	22	3	5	4.09	0.610	0.372
3.4.2	22	3	5	4.14	0.710	0.504
3.4.3	22	2	5	3.32	0.995	0.989
3.4.4	22	1	5	3.18	1.006	1.013
3.4.5	22	1	5	2.45	1.101	1.212
3.4.6	22	1	5	2.64	1.049	1.100
3.4.7	22	1	5	3.18	1.220	1.489
3.4.8	22	1	5	3.09	1.065	1.134
3.4.9	22	1	5	2.77	1.307	1.708
3.4.10	22	1	5	2.82	1.220	1.489
3.4.11	22	1	5	2.36	1.177	1.385

3.4.12	22	1	5	2.73	1.120	1.255
3.4.13	22	1	5	2.14	1.246	1.552
Section 3.5						
3.5.1	22	1	5	3.05	1.046	1.093
3.5.2	22	1	5	2.27	1.162	1.351
3.5.3	22	1	5	2.50	1.102	1.214
3.5.4	22	3	5	3.95	0.785	0.617
3.5.5	22	1	5	2.68	1.249	1.561
3.5.6	22	1	5	2.82	1.296	1.680
3.5.7	22	1	5	2.73	1.120	1.255
3.5.8	22	1	5	2.86	1.207	1.457
3.5.9	22	3	5	3.91	0.750	0.563
3.5.10	22	1	5	3.64	1.293	1.671
3.5.11	22	1	5	3.73	1.032	1.065
3.5.12	22	1	4	2.41	1.098	1.206
3.5.13	22	1	4	1.68	0.894	0.799
3.5.14	22	1	5	3.45	1.101	1.212
3.5.15	22	1	5	2.23	1.110	1.232
3.5.16	22	1	5	2.23	1.193	1.422
3.5.17	22	1	4	2.36	1.002	1.004
3.5.18	22	1	5	3.09	1.109	1.229
3.5.19	22	1	5	3.77	0.973	0.946
3.5.20	22	2	5	3.95	0.844	0.712
3.5.21	22	2	5	3.82	0.907	0.823
3.5.23_a: Strategic	22	3	5	4.00	0.690	0.476
3.5.23_b: Tactical	22	1	5	2.95	1.046	1.093
3.5.23_c: Operational	22	1	4	2.05	0.950	0.903
3.5.24_a: Strategic	22	3	5	3.86	0.640	0.409
3.5.24_b: Tactical	22	1	5	3.00	1.069	1.143
3.5.24_c: Operational	22	1	4	2.18	1.140	1.299

Sorted by Number of Employees:

Variable	Less than 50			50 - 500			More than 500		
	n	Mean	Std. deviation	n	Mean	Std. deviation	n	Mean	Std. deviation
Section 3.1									
3.1.1	6	3.33	0.816	8	3.87	0.641	8	4.38	0.744
3.1.2	6	3.83	0.753	8	4.25	0.707	8	4.62	0.518
3.1.3	6	4.17	0.753	8	4.25	0.707	8	4.62	0.518
3.1.4	6	4.33	0.516	8	4.12	0.835	8	4.25	0.707

3.1.5	6	2.83	0.983	8	3.38	0.916	8	3.75	0.886
3.1.6	6	3.00	1.095	8	3.25	1.035	8	3.50	1.069
Section 3.2									
3.2.1	6	2.67	1.033	8	3.50	0.926	8	4.12	0.991
3.2.2	6	2.17	0.983	8	3.38	0.916	8	4.25	0.886
3.2.3	6	3.00	1.265	8	3.50	0.926	8	3.88	1.126
3.2.4	6	2.50	1.643	8	3.25	1.282	8	2.75	1.488
3.2.5	6	4.00	1.095	8	4.38	0.744	8	4.00	0.926
Section 3.3									
3.3.1	6	1.83	0.983	8	2.38	1.302	8	3.37	1.408
3.3.2	6	3.00	1.095	8	3.50	0.926	8	3.75	1.282
3.3.3	6	2.83	1.472	8	2.88	0.991	8	3.25	1.282
3.3.4	6	3.33	1.506	8	3.75	0.886	8	4.50	0.756
3.3.5	6	3.00	1.414	8	2.88	0.991	8	3.75	0.886
3.3.6	6	2.67	0.816	8	2.88	0.835	8	4.00	0.926
3.3.7	6	3.17	0.983	8	3.38	0.916	8	3.62	1.061
3.3.8	6	4.33	1.033	8	4.62	0.518	8	4.75	0.463
Section 3.4									
3.4.1	6	4.17	0.408	8	4.00	0.535	8	4.12	0.835
3.4.2	6	4.33	0.516	8	3.87	0.641	8	4.25	0.886
3.4.3	6	3.50	1.378	8	3.13	0.991	8	3.38	0.744
3.4.4	6	2.83	1.472	8	3.25	0.886	8	3.38	0.744
3.4.5	6	1.67	0.816	8	3.00	1.069	8	2.50	1.069
3.4.6	6	2.17	0.753	8	2.75	1.165	8	2.88	1.126
3.4.7	6	3.17	1.472	8	3.12	1.126	8	3.25	1.282
3.4.8	6	3.33	1.211	8	2.88	0.991	8	3.12	1.126
3.4.9	6	1.50	0.548	8	3.88	0.641	8	2.62	1.302
3.4.10	6	1.50	0.837	8	3.38	0.916	8	3.25	1.035
3.4.11	6	1.50	0.548	8	2.75	1.282	8	2.62	1.188
3.4.12	6	1.83	1.169	8	3.38	1.061	8	2.75	0.707
3.4.13	6	1.17	0.408	8	2.38	1.506	8	2.62	1.061
Section 3.5									
3.5.1	6	2.50	1.049	8	3.00	1.069	8	3.50	0.926
3.5.2	6	1.67	1.033	8	2.50	1.195	8	2.50	1.195
3.5.3	6	2.00	0.894	8	2.88	1.246	8	2.50	1.069
3.5.4	6	3.67	0.816	8	4.12	0.835	8	4.00	0.756
3.5.5	6	2.33	1.506	8	2.62	1.188	8	3.00	1.195
3.5.6	6	2.33	1.033	8	3.00	1.309	8	3.00	1.512
3.5.7	6	2.17	1.169	8	2.75	1.035	8	3.12	1.126
3.5.8	6	2.50	1.378	8	2.75	0.707	8	3.25	1.488
3.5.9	6	4.00	0.894	8	3.62	0.744	8	4.13	0.641
3.5.10	6	3.00	1.549	8	3.75	1.035	8	4.00	1.309

3.5.11	6	3.33	1.366	8	3.75	1.035	8	4.00	0.756
3.5.12	6	2.17	1.169	8	2.25	1.035	8	2.75	1.165
3.5.13	6	1.33	0.816	8	1.75	1.035	8	1.88	0.835
3.5.14	6	3.33	1.366	8	3.50	1.069	8	3.50	1.069
3.5.15	6	1.50	0.548	8	2.25	1.035	8	2.75	1.282
3.5.16	6	1.33	0.516	8	2.38	1.188	8	2.75	1.282
3.5.17	6	2.33	1.211	8	2.50	0.756	8	2.25	1.165
3.5.18	6	2.50	1.049	8	2.87	1.126	8	3.75	0.886
3.5.19	6	3.67	0.816	8	3.38	1.302	8	4.25	0.463
3.5.20	6	3.67	0.816	8	3.75	1.035	8	4.38	0.518
3.5.21	6	3.50	1.049	8	3.50	0.926	8	4.38	0.518
3.5.23_a: Strategic	6	3.67	0.816	8	4.00	0.756	8	4.25	0.463
3.5.23_b: Tactical	6	2.50	1.049	8	2.88	1.126	8	3.38	0.916
3.5.23_c: Operational	6	1.67	0.816	8	2.00	1.069	8	2.38	0.916
3.5.24_a: Strategic	6	3.50	0.548	8	4.12	0.641	8	3.88	0.641
3.5.24_b: Tactical	6	2.50	1.049	8	3.25	0.886	8	3.12	1.246
3.5.24_c: Operational	6	1.67	0.816	8	2.50	1.195	8	2.25	1.282

Appendix G

Correlation Matrix and Cross-tabulation Tables

Important Variable Correlations:

NB Variables	3.1.1	3.1.2	3.1.5	3.4.10	3.5.1	3.5.2	3.5.3	3.5.6	3.5.7	3.5.8	3.5.12	3.5.13	3.5.15	3.5.16	3.5.17	3.5.18
3.1.1	1	.714**	.660**	.512*	0.398	.482*	.426*	0.346	.600**	.570**	.471*	0.418	.553**	0.416	0.101	.539**
3.1.2	.714**	1	.556**	.561**	.501*	.546**	.492*	.423*	.704**	.439*	.589**	.524*	.650**	.548**	0.123	.761**
3.1.5	.660**	.556**	1	.428*	.460*	0.422	0.363	.480*	.588**	.459*	.488*	.533*	.593**	.426*	0.104	0.418
3.4.10	.512*	.561**	.428*	1	.604**	.607**	0.39	.520*	.659**	0.338	.449*	.599**	.489*	.553**	0.29	0.4
3.5.1	0.398	.501*	.460*	.604**	1	.656**	.599**	.534*	.824**	.684**	.730**	.781**	.483*	.679**	-0.198	.571**
3.5.2	.482*	.546**	0.422	.607**	.656**	1	.855**	.604**	.718**	.469*	.692**	.638**	.503*	0.365	0.115	.682**
3.5.3	.426*	.492*	0.363	0.39	.599**	.855**	1	.700**	.617**	.519*	.728**	.604**	.565**	0.38	-0.086	.702**
3.5.6	0.346	.423*	.480*	.520*	.534*	.604**	.700**	1	.653**	.470*	.824**	.688**	.725**	.459*	0.09	.542**
3.5.7	.600**	.704**	.588**	.659**	.824**	.718**	.617**	.653**	1	.711**	.753**	.813**	.703**	.690**	-0.077	.711**
3.5.8	.570**	.439*	.459*	0.338	.684**	.469*	.519*	.470*	.711**	1	.727**	.620**	.558**	.519*	-0.115	.508*
3.5.12	.471*	.589**	.488*	.449*	.730**	.692**	.728**	.824**	.753**	.727**	1	.770**	.663**	.507*	0.031	.633**
3.5.13	0.418	.524*	.533*	.599**	.781**	.638**	.604**	.688**	.813**	.620**	.770**	1	.701**	.697**	0.029	.463*
3.5.15	.553**	.650**	.593**	.489*	.483*	.503*	.565**	.725**	.703**	.558**	.663**	.701**	1	.715**	-0.163	.679**
3.5.16	0.416	.548**	.426*	.553**	.679**	0.365	0.38	.459*	.690**	.519*	.507*	.697**	.715**	1	-0.391	.524*
3.5.17	0.101	0.123	0.104	0.29	-0.198	0.115	-0.086	0.09	-0.077	-0.115	0.031	0.029	-0.163	-0.391	1	-0.117
3.5.18	.539**	.761**	0.418	0.4	.571**	.682**	.702**	.542**	.711**	.508*	.633**	.463*	.679**	.524*	-0.117	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Correlation Matrix per section:

Section 3.1	3.1.1	3.1.2	3.1.3	3.1.4	3.1.5	3.1.6
3.1.1	1	.714**	0.243	0.125	.660**	.429*
3.1.2	.714**	1	.599**	0.36	.556**	0.352
3.1.3	0.243	.599**	1	.653**	.462*	0.408
3.1.4	0.125	0.36	.653**	1	0.305	.447*
3.1.5	.660**	.556**	.462*	0.305	1	.814**
3.1.6	.429*	0.352	0.408	.447*	.814**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Section 3.2	3.2.1	3.2.2	3.2.3	3.2.4	3.2.5
3.2.1	1	.817**	.647**	.470*	-0.122

3.2.2	.817**	1	.746**	.442*	-0.048
3.2.3	.647**	.746**	1	.652**	0.316
3.2.4	.470*	.442*	.652**	1	0.354
3.2.5	-0.122	-0.048	0.316	0.354	1

Section 3.3	3.3.1	3.3.2	3.3.3	3.3.4	3.3.5	3.3.6	3.3.7	3.3.8
3.3.1	1	.730**	.641**	.445*	.629**	.650**	.424*	.539**
3.3.2	.730**	1	.651**	0.191	0.106	.582**	.627**	.525*
3.3.3	.641**	.651**	1	0.323	0.072	0.234	0.249	.538**
3.3.4	.445*	0.191	0.323	1	0.405	0.187	-0.008	.463*
3.3.5	.629**	0.106	0.072	0.405	1	0.331	0.132	0.196
3.3.6	.650**	.582**	0.234	0.187	0.331	1	.436*	0.353
3.3.7	.424*	.627**	0.249	-0.008	0.132	.436*	1	0.051
3.3.8	.539**	.525*	.538**	.463*	0.196	0.353	0.051	1

Section 3.4	3.4.1	3.4.2	3.4.3	3.4.4	3.4.5	3.4.6	3.4.7	3.4.8	3.4.9	3.4.10	3.4.11	3.4.12	3.4.13
3.4.1	1	.739**	.578**	0.282	0.219	0.203	.488*	.500*	0.206	-0.169	0.151	0.177	0.296
3.4.2	.739**	1	.745**	.430*	0.282	0.326	0.41	.487*	0.086	-0.08	0.28	0.288	0.409
3.4.3	.578**	.745**	1	.558**	.427*	.482*	0.421	.466*	0.168	0.207	.425*	0.167	0.386
3.4.4	0.282	.430*	.558**	1	.609**	.788**	0.166	0.073	.504*	.455*	.705**	.553**	.625**
3.4.5	0.219	0.282	.427*	.609**	1	.727**	0.148	0.207	.737**	.702**	.712**	.530*	.508*
3.4.6	0.203	0.326	.482*	.788**	.727**	1	0.203	0.287	.632**	.541**	.768**	0.357	.587**
3.4.7	.488*	0.41	0.421	0.166	0.148	0.203	1	.683**	0.176	0.183	0.316	0.247	.515*
3.4.8	.500*	.487*	.466*	0.073	0.207	0.287	.683**	1	0.084	-0.097	0.238	0.102	0.385
3.4.9	0.206	0.086	0.168	.504*	.737**	.632**	0.176	0.084	1	.570**	.645**	.639**	.517*
3.4.10	-0.169	-0.08	0.207	.455*	.702**	.541**	0.183	-0.097	.570**	1	.678**	.484*	.581**
3.4.11	0.151	0.28	.425*	.705**	.712**	.768**	0.316	0.238	.645**	.678**	1	.476*	.776**
3.4.12	0.177	0.288	0.167	.553**	.530*	0.357	0.247	0.102	.639**	.484*	.476*	1	.676**
3.4.13	0.296	0.409	0.386	.625**	.508*	.587**	.515*	0.385	.517*	.581**	.776**	.676**	1

Section 3.5	3.5.1	3.5.2	3.5.3	3.5.4	3.5.5	3.5.6	3.5.7	3.5.8	3.5.9	3.5.10	3.5.11	3.5.12	3.5.13	3.5.14	3.5.15	3.5.16	3.5.17	3.5.18	3.5.19	3.5.20	3.5.21
3.5.1	1	.656**	.599**	0.119	.449*	.534*	.824**	.684**	0.006	.436*	0.321	.730**	.781**	0.271	.483*	.679**	0.198	.571**	0.198	0.164	0.16
3.5.2	.656**	1	.855**	.588**	.555**	.604**	.718**	.469*	0.412	.640**	.541**	.692**	.638**	.494*	.503*	0.365	0.115	.682**	.479*	0.402	0.366
3.5.3	.599**	.855**	1	.633**	.467*	.700**	.617**	.519*	0.346	.635**	.586**	.728**	.604**	.510*	.565**	0.308	0.086	.702**	.467*	.486*	.429*
3.5.4	0.119	.588**	.633**	1	.567**	.459*	0.31	0.144	.639**	.686**	.748**	0.409	0.182	.631**	0.286	0.012	0.203	.497*	.547**	.643**	.523*
3.5.5	.449*	.555**	.467*	.567**	1	0.286	0.377	0.128	.425*	.485*	.631**	0.377	0.332	.664**	0.295	0.275	0.021	.503*	.604**	.483*	.451*
3.5.6	.534*	.604**	.700**	.459*	0.286	1	.653**	.470*	0.227	.527*	0.388	.824**	.688**	0.394	.725**	.459*	0.09	.542**	0.343	0.34	0.335
3.5.7	.824**	.718**	.617**	0.31	0.377	.653**	1	.711**	0.196	.586**	.427*	.753**	.813**	0.337	.703**	.690**	0.077	.711**	0.246	0.238	0.183

3.5.8	.68 4**	.46 9*	.51 9*	.01 44	.01 28	.47 0*	.71 1**	1	0.0 38	.42 5*	.02 75	.72 7**	.62 0**	0.1 21	.55 8**	.51 9*	0.1 15	.50 8*	0.1 35	0.1 81	0.1 94
3.5.9	0.0 06	0.4 12	0.3 46	.63 9**	.42 5*	0.2 27	0.1 96	0.0 38	1	.55 4**	.45 9*	0.3 36	0.0 97	0.3 98	0.1 98	0.0 24	0.1 73	0.4 11	.68 8**	.67 0**	.53 4*
3.5.10	.43 6*	.64 0**	.63 5**	.68 6**	.48 5*	.52 7*	.58 6**	.42 5*	.55 4**	1	.85 0**	.61 3**	0.3 9	.62 4**	.49 2*	.42 7*	0.0 03	.72 2**	.61 3**	.72 6**	.63 1**
3.5.11	0.3 21	.54 1**	.58 6**	.74 8**	.63 1**	0.3 88	.42 7*	0.2 75	.45 9*	.85 0**	1	0.3 97	0.2 63	.82 7**	0.3 89	0.2 08	0.0 08	.68 9**	.74 2**	.80 5**	.65 7**
3.5.12	.73 0**	.69 2**	.72 8**	0.4 09	0.3 77	.82 4**	.75 3**	.72 7**	0.3 36	.61 3**	0.3 97	1	.77 0**	0.2 72	.66 3**	.50 7*	0.0 31	.63 3**	0.3 59	0.3 81	0.4 13
3.5.13	.78 1**	.63 8**	.60 4**	0.1 82	0.3 32	.68 8**	.81 3**	.62 0**	0.0 97	0.3 9	0.2 63	.77 0**	1	0.2 02	.70 1**	.69 7**	0.0 29	.46 3*	0.1 32	0.1 06	0.2 19
3.5.14	0.2 71	.49 4*	.51 0*	.63 1**	.66 4**	0.3 94	0.3 37	0.1 21	0.3 98	.62 4**	.82 7**	0.2 72	0.2 02	1	0.2 62	0.0 99	0.1 02	.55 0**	.72 4**	.63 8**	.46 8*
3.5.15	.48 3*	.50 3*	.56 5**	0.2 86	0.2 95	.72 5**	.70 3**	.55 8**	0.1 98	.49 2*	0.3 89	.66 3**	.70 1**	0.2 62	1	.71 5**	0.1 63	.67 9**	0.3 15	0.3 67	.46 9*
3.5.16	.67 9**	0.3 65	0.3 8	0.0 12	0.2 75	.45 9*	.69 0**	.51 9*	0.0 24	.42 7*	0.2 08	.50 7*	.69 7**	0.0 99	.71 5**	1	0.3 91	.52 4*	0.0 88	0.1 05	0.2 6
3.5.17	0.1 98	0.1 15	0.0 86	0.2 03	0.0 21	0.0 9	0.0 77	0.1 15	0.1 73	0.0 03	0.0 08	0.0 31	0.0 29	0.1 02	0.1 63	0.3 91	1	0.1 17	0.1 38	0.1 33	0.1 29
3.5.18	.57 1**	.68 2**	.70 2**	.49 7*	.50 3*	.54 2**	.71 1**	.50 8*	0.4 11	.72 2**	.68 9**	.63 3**	.46 3*	.55 0**	.67 9**	.52 4*	0.1 17	1	.68 2**	.66 6**	.63 3**
3.5.19	0.1 98	.47 9*	.46 7*	.54 7**	.60 4**	0.3 43	0.2 46	0.1 35	.68 8**	.61 3**	.74 2**	0.3 59	0.1 32	.72 4**	0.3 15	0.0 88	0.1 38	.68 2**	1	.85 7**	.70 7**
3.5.20	0.1 64	0.4 02	.48 6*	.64 3**	.48 3*	0.3 4	0.2 38	0.1 81	.67 0**	.72 6**	.80 5**	0.3 81	0.1 06	.63 8**	0.3 67	0.1 05	0.1 33	.66 6**	.85 7**	1	.86 0**
3.5.21	0.1 6	0.3 66	.42 9*	.52 3*	.45 1*	0.3 35	0.1 83	0.1 94	.53 4*	.63 1**	.65 7**	0.4 13	0.2 19	.46 8*	.46 9*	0.2 6	0.1 29	.63 3**	.70 7**	.86 0**	1

Cross-tabulations:

3.1.1	3.4.2			
	Neutral	Agree	Strongly agree	Total
Disagree	0	1	0	1
Neutral	3	1	1	5
Agree	0	7	4	11
Strongly agree	1	2	2	5
Total	4	11	7	22

3.1.2	3.4.13					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	2	1	0	0	0	3
Agree	7	1	1	1	0	10
Strongly agree	0	4	2	2	1	9
Total	9	6	3	3	1	22

3.1.2	3.5.9			
	Neutral	Agree	Strongly agree	Total
Neutral	2	1	0	3
Agree	5	2	3	10
Strongly agree	0	7	2	9
Total	7	10	5	22

3.1.2	3.5.18					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	0	3	0	0	0	3
Agree	2	2	5	1	0	10
Strongly agree	0	0	0	8	1	9
Total	2	5	5	9	1	22

3.1.2	3.5.19					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	0	0	2	1	0	3
Agree	1	1	2	4	2	10
Strongly agree	0	0	0	7	2	9
Total	1	1	4	12	4	22

3.1.3	3.5.18					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	1	1	0	0	0	2
Agree	1	3	4	2	0	10
Strongly agree	0	1	1	7	1	10
Total	2	5	5	9	1	22

3.1.3	3.5.19					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	1	0	0	1	0	2
Agree	0	1	3	4	2	10
Strongly agree	0	0	1	7	2	10
Total	1	1	4	12	4	22

3.1.4	3.4.2			
	Neutral	Agree	Strongly agree	Total
Neutral	0	2	1	3
Agree	2	7	2	11
Strongly agree	2	2	4	8
Total	4	11	7	22

3.1.1	3.3.8			
	Neutral	Agree	Strongly agree	Total
Disagree	1	0	0	1

Neutral	1	2	2	5
Agree	0	3	8	11
Strongly agree	0	0	5	5
<i>Total</i>	2	5	15	22

3.1.2	3.3.8			
	Neutral	Agree	Strongly agree	<i>Total</i>
Neutral	2	0	1	3
Agree	0	4	6	10
Strongly agree	0	1	8	9
<i>Total</i>	2	5	15	22

3.1.3	3.3.8			
	Neutral	Agree	Strongly agree	<i>Total</i>
Neutral	1	0	1	2
Agree	1	3	6	10
Strongly agree	0	2	8	10
<i>Total</i>	2	5	15	22

3.1.6	3.3.8			
	Neutral	Agree	Strongly agree	<i>Total</i>
Disagree	2	1	4	7
Neutral	0	2	2	4
Agree	0	2	7	9
Strongly agree	0	0	2	2
<i>Total</i>	2	5	15	22

3.3.8	3.5.24_b: Tactical					
	No impact	Low impact	Medium impact	High impact	Very high impact	<i>Total</i>
Neutral	0	2	0	0	0	2
Agree	1	2	0	2	0	5
Strongly agree	1	1	7	5	1	15
<i>Total</i>	2	5	7	7	1	22

3.3.8	3.4.1			
	Neutral	Agree	Strongly agree	<i>Total</i>
Neutral	0	2	0	2
Agree	2	2	1	5
Strongly agree	1	10	4	15

<i>Total</i>	3	14	5	22
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3.3.8	3.4.2			
	Neutral	Agree	Strongly agree	<i>Total</i>
Neutral	0	2	0	2
Agree	2	2	1	5
Strongly agree	2	7	6	15
<i>Total</i>	4	11	7	22

3.2.5	3.3.8			
	Neutral	Agree	Strongly agree	<i>Total</i>
Disagree	1	0	1	2
Neutral	0	1	0	1
Agree	0	3	8	11
Strongly agree	1	1	6	8
<i>Total</i>	2	5	15	22

3.2.5	3.4.1			
	Neutral	Agree	Strongly agree	<i>Total</i>
Disagree	0	1	1	2
Neutral	0	1	0	1
Agree	2	7	2	11
Strongly agree	1	5	2	8
<i>Total</i>	3	14	5	22

3.2.5	3.5.19					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	<i>Total</i>
Disagree	0	0	1	0	1	2
Neutral	0	0	0	1	0	1
Agree	1	0	2	7	1	11
Strongly agree	0	1	1	4	2	8
<i>Total</i>	1	1	4	12	4	22

3.2.5	3.5.20				
	Disagree	Neutral	Agree	Strongly agree	<i>Total</i>
Disagree	0	1	0	1	2
Neutral	0	0	1	0	1
Agree	0	3	7	1	11
Strongly agree	1	1	2	4	8

<i>Total</i>	1	5	10	6	22
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3.2.5	3.5.21				
	Disagree	Neutral	Agree	Strongly agree	<i>Total</i>
Disagree	0	1	0	1	2
Neutral	0	0	1	0	1
Agree	1	2	7	1	11
Strongly agree	1	2	2	3	8
<i>Total</i>	2	5	10	5	22

3.3.7	3.5.3					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	1	1	0	0	0	2
Agree	2	2	1	0	0	5
Strongly agree	2	2	8	2	1	15
Total	5	5	9	2	1	22

3.3.7	3.5.8					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	1	1	0	0	0	2
Agree	1	1	3	0	0	5
Strongly agree	2	2	3	7	1	15
Total	4	4	6	7	1	22

3.3.7	3.5.9			
	Neutral	Agree	Strongly agree	Total
Neutral	1	1	0	2
Agree	3	2	0	5
Strongly agree	3	7	5	15
Total	7	10	5	22

3.3.7	3.5.18					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	0	2	0	0	0	2
Agree	0	2	2	1	0	5
Strongly agree	2	1	3	8	1	15
Total	2	5	5	9	1	22

3.3.7	3.5.19
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	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	0	0	1	1	0	2
Agree	0	1	0	4	0	5
Strongly agree	1	0	3	7	4	15
Total	1	1	4	12	4	22

3.1.3	3.4.1			
	Neutral	Agree	Strongly agree	Total
Neutral	0	2	0	2
Agree	0	8	2	10
Strongly agree	3	4	3	10
Total	3	14	5	22

3.1.4	3.4.1			
	Neutral	Agree	Strongly agree	Total
Neutral	0	2	1	3
Agree	2	7	2	11
Strongly agree	1	5	2	8
Total	3	14	5	22

3.2.2	3.4.1			
	Neutral	Agree	Strongly agree	Total
Strongly disagree	0	1	1	2
Disagree	0	2	0	2
Neutral	2	7	0	9
Agree	0	3	1	4
Strongly agree	1	1	3	5
Total	3	14	5	22

3.2.3	3.4.1			
	Neutral	Agree	Strongly agree	Total
Strongly disagree	0	0	1	1
Disagree	1	2	0	3
Neutral	1	4	1	6
Agree	0	7	1	8
Strongly agree	1	1	2	4
Total	3	14	5	22

3.4.1	3.5.5
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	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	0	0	1	2	0	3
Agree	2	7	4	0	1	14
Strongly agree	1	2	0	0	2	5
Total	3	9	5	2	3	22

3.4.1	3.5.15					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	1	0	1	0	1	3
Agree	4	7	2	1	0	14
Strongly agree	1	2	1	1	0	5
Total	6	9	4	2	1	22

3.4.1	3.5.19					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Neutral	0	0	0	2	1	3
Agree	1	1	3	7	2	14
Strongly agree	0	0	1	3	1	5
Total	1	1	4	12	4	22

3.1.1	3.5.13				
	Strongly disagree	Disagree	Neutral	Agree	Total
Disagree	1	0	0	0	1
Neutral	2	2	1	0	5
Agree	9	2	0	0	11
Strongly agree	0	2	2	1	5
Total	12	6	3	1	22

3.1.2	3.5.13				
	Strongly disagree	Disagree	Neutral	Agree	Total
Neutral	2	1	0	0	3
Agree	8	2	0	0	10
Strongly agree	2	3	3	1	9
Total	12	6	3	1	22

3.1.4	3.5.13				
	Strongly disagree	Disagree	Neutral	Agree	Total
Neutral	3	0	0	0	3
Agree	7	3	1	0	11

Strongly agree	2	3	2	1	8
<i>Total</i>	12	6	3	1	22

3.3.7	3.5.13				
	Strongly disagree	Disagree	Neutral	Agree	Total
Neutral	2	0	0	0	2
Agree	3	2	0	0	5
Strongly agree	7	4	3	1	15
Total	12	6	3	1	22

3.4.1	3.5.13				
	Strongly disagree	Disagree	Neutral	Agree	Total
Neutral	1	1	1	0	3
Agree	8	4	2	0	14
Strongly agree	3	1	0	1	5
Total	12	6	3	1	22

3.4.2	3.5.13				
	Strongly disagree	Disagree	Neutral	Agree	Total
Neutral	1	2	1	0	4
Agree	8	2	1	0	11
Strongly agree	3	2	1	1	7
Total	12	6	3	1	22

3.5.2	3.5.13				
	Strongly disagree	Disagree	Neutral	Agree	Total
Strongly disagree	7	0	0	0	7
Disagree	2	3	1	0	6
Neutral	3	1	2	0	6
Agree	0	2	0	0	2
Strongly agree	0	0	0	1	1
Total	12	6	3	1	22

3.5.13	3.5.16					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Strongly disagree	7	4	1	0	0	12
Disagree	0	3	1	2	0	6
Neutral	0	1	1	0	1	3
Agree	0	0	0	1	0	1

Total	7	8	3	3	1	22
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3.5.13	3.5.17				
	Strongly disagree	Disagree	Neutral	Agree	Total
Strongly disagree	3	2	7	0	12
Disagree	2	1	2	1	6
Neutral	1	0	1	1	3
Agree	0	1	0	0	1
Total	6	4	10	2	22

3.5.13	3.5.23 c: Operational				
	Hardly used at all	Seldom used	Often used	Very often used	Total
Strongly disagree	7	4	1	0	12
Disagree	0	4	2	0	6
Neutral	0	1	1	1	3
Agree	0	0	0	1	1
Total	7	9	4	2	22

3.5.13	3.5.24 c: Operational				
	No impact	Low impact	Medium impact	High impact	Total
Strongly disagree	7	3	1	1	12
Disagree	1	2	2	1	6
Neutral	0	1	1	1	3
Agree	0	0	0	1	1
Total	8	6	4	4	22

Count		3.5.8					
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
3.5.22_a: Competitive advantage	Yes	1	1	5	7	1	15
	No	3	3	1	0	0	7
	Total	4	4	6	7	1	22

Count		3.5.9			
		Neutral	Agree	Strongly agree	Total
3.5.22_a: Competitive advantage	Yes	2	9	4	15
	No	5	1	1	7
	Total	7	10	5	22

Count		3.5.10					
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
3.5.22_a: Competitive advantage	Yes	0	1	1	7	6	15
	No	2	2	1	2	0	7
	Total	2	3	2	9	6	22

Count		3.5.11					
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
3.5.22_a: Competitive advantage	Yes	0	1	2	7	5	15
	No	1	0	4	2	0	7
	Total	1	1	6	9	5	22

Count		3.5.19					
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
3.5.22_a: Competitive advantage	Yes	0	1	1	9	4	15
	No	1	0	3	3	0	7
	Total	1	1	4	12	4	22

Count		3.5.20				
		Disagree	Neutral	Agree	Strongly agree	Total
3.5.22_a: Competitive advantage	Yes	1	1	7	6	15
	No	0	4	3	0	7
	Total	1	5	10	6	22

Count		3.5.21				
		Disagree	Neutral	Agree	Strongly agree	Total
3.5.22_a: Competitive advantage	Yes	2	1	7	5	15
	No	0	4	3	0	7
	Total	2	5	10	5	22

3.2.5	3.5.23_a: Strategic			
	Often used	Very often used	Almost always used	Total

Disagree	1	1	0	2
Neutral	1	0	0	1
Agree	0	8	3	11
Strongly agree	3	3	2	8
<i>Total</i>	5	12	5	22

<i>3.3.8</i>	<i>3.5.23_a: Strategic</i>			
	Often used	Very often used	Almost always used	<i>Total</i>
Neutral	2	0	0	2
Agree	1	3	1	5
Strongly agree	2	9	4	15
<i>Total</i>	5	12	5	22

Count		<i>3.5.22_a: Competitive advantage</i>		
		Yes	No	Total
<i>3.5.23_a: Strategic</i>	Often used	1	4	5
	Very often used	9	3	12
	Almost always used	5	0	5
	<i>Total</i>	15	7	22

Count		<i>3.5.22_b: Early Warning Systems</i>		
		Yes	No	Total
<i>3.5.23_a: Strategic</i>	Often used	2	3	5
	Very often used	5	7	12
	Almost always used	3	2	5
	<i>Total</i>	10	12	22

Count	<i>3.5.22_c: Market Entry</i>
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		Yes	No	Total
3.5.23_a: Strategic	Often used	2	3	5
	Very often used	7	5	12
	Almost always used	5	0	5
	Total	14	8	22

Count		3.5.22_d: New Product Development		
		Yes	No	Total
3.5.23_a: Strategic	Often used	5	0	5
	Very often used	12	0	12
	Almost always used	4	1	5
	Total	21	1	22

Count		3.5.22_e: Pricing		
		Yes	No	Total
3.5.23_a: Strategic	Often used	1	4	5
	Very often used	8	4	12
	Almost always used	5	0	5
	Total	14	8	22

Count		3.5.22_f: Key Account Management		
		Yes	No	Total
3.5.23_a: Strategic	Often used	1	4	5

	Very often used	4	8	12
	Almost always used	3	2	5
	Total	8	14	22

Count		3.5.23_b: Tactical					Total
		Hardly used at all	Seldom used	Often used	Very often used	Almost always used	
3.5.23_a: Strategic	Often used	1	4	0	0	0	5
	Very often used	0	2	7	3	0	12
	Almost always used	0	1	1	1	2	5
	Total	1	7	8	4	2	22

Count		3.5.23_c: Operational				Total
		Hardly used at all	Seldom used	Often used	Very often used	
3.5.23_a: Strategic	Often used	4	1	0	0	5
	Very often used	2	8	1	1	12
	Almost always used	1	0	3	1	5
	Total	7	9	4	2	22

Count		3.5.24_a: Strategic			Total
		Medium impact	High impact	Very high impact	
3.5.23_a: Strategic	Often used	4	1	0	5
	Very often used	2	9	1	12
	Almost always used	0	3	2	5

Count		3.5.24_a: Strategic			
		Medium impact	High impact	Very high impact	Total
3.5.23_a: Strategic	Often used	4	1	0	5
	Very often used	2	9	1	12
	Almost always used	0	3	2	5
	Total	6	13	3	22

3.3.7	3.5.23_b: Tactical					
	Hardly used at all	Seldom used	Often used	Very often used	Almost always used	Total
Disagree	1	2	0	2	0	5
Neutral	0	3	1	0	1	5
Agree	0	2	7	0	1	10
Strongly agree	0	0	0	2	0	2
Total	1	7	8	4	2	22

Count		3.5.22_a: Competitive advantage		
		Yes	No	Total
3.5.23_b: Tactical	Hardly used at all	0	1	1
	Seldom used	2	5	7
	Often used	7	1	8
	Very often used	4	0	4
	Almost always used	2	0	2
	Total	15	7	22

3.1.1	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Disagree	1	0	0	1
Neutral	2	2	1	5

Agree	3	7	1	11
Strongly agree	0	4	1	5
<i>Total</i>	6	13	3	22

3.1.3	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Neutral	1	1	0	2
Agree	4	5	1	10
Strongly agree	1	7	2	10
<i>Total</i>	6	13	3	22

3.1.4	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Neutral	2	1	0	3
Agree	4	7	0	11
Strongly agree	0	5	3	8
<i>Total</i>	6	13	3	22

3.2.5	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Disagree	1	1	0	2
Neutral	1	0	0	1
Agree	2	8	1	11
Strongly agree	2	4	2	8
<i>Total</i>	6	13	3	22

3.3.2	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Strongly disagree	2	0	0	2
Disagree	0	1	0	1
Neutral	3	3	1	7
Agree	1	7	1	9
Strongly agree	0	2	1	3
<i>Total</i>	6	13	3	22

3.3.4	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Disagree	1	2	0	3
Neutral	2	2	1	5

Agree	2	2	1	5
Strongly agree	1	7	1	9
Total	6	13	3	22

3.3.8	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Neutral	2	0	0	2
Agree	3	1	1	5
Strongly agree	1	12	2	15
Total	6	13	3	22

3.4.1	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Neutral	1	2	0	3
Agree	3	8	3	14
Strongly agree	2	3	0	5
Total	6	13	3	22

3.4.2	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Neutral	1	2	1	4
Agree	3	7	1	11
Strongly agree	2	4	1	7
Total	6	13	3	22

3.4.4	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Strongly disagree	1	0	0	1
Disagree	3	1	0	4
Neutral	0	7	2	9
Agree	2	3	1	6
Strongly agree	0	2	0	2
Total	6	13	3	22

3.4.3	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Disagree	3	1	1	5
Neutral	0	7	1	8

Agree	2	3	1	6
Strongly agree	1	2	0	3
Total	6	13	3	22

3.4.10	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Strongly disagree	3	1	0	4
Disagree	1	2	1	4
Neutral	1	7	0	8
Agree	1	2	1	4
Strongly agree	0	1	1	2
Total	6	13	3	22

3.4.11	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Strongly disagree	4	1	0	5
Disagree	0	7	2	9
Neutral	1	4	0	5
Agree	1	0	0	1
Strongly agree	0	1	1	2
Total	6	13	3	22

3.4.12	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Strongly disagree	2	1	0	3
Disagree	2	3	1	6
Neutral	1	7	1	9
Agree	1	1	0	2
Strongly agree	0	1	1	2
Total	6	13	3	22

3.5.1	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Strongly disagree	1	0	0	1
Disagree	4	1	1	6
Neutral	1	7	0	8
Agree	0	3	2	5
Strongly agree	0	2	0	2
Total	6	13	3	22

3.5.3	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Strongly disagree	4	1	0	5
Disagree	2	2	1	5
Neutral	0	8	1	9
Agree	0	1	1	2
Strongly agree	0	1	0	1
Total	6	13	3	22

3.5.18	3.5.24_a: Strategic			
	Medium impact	High impact	Very high impact	Total
Strongly disagree	1	1	0	2
Disagree	3	1	1	5
Neutral	2	3	0	5
Agree	0	7	2	9
Strongly agree	0	1	0	1
Total	6	13	3	22

Count		3.5.22_a: Competitive advantage		
		Yes	No	Total
3.5.24_a: Strategic	Medium impact	1	5	6
	High impact	11	2	13
	Very high impact	3	0	3
	Total	15	7	22

Count		3.5.22_d: New Product Development		
		Yes	No	Total
3.5.24_a: Strategic	Medium impact	6	0	6
	High impact	12	1	13
	Very high impact	3	0	3

Count		3.5.22_d: New Product Development		
		Yes	No	Total
3.5.24_a: Strategic	Medium impact	6	0	6
	High impact	12	1	13
	Very high impact	3	0	3
	Total	21	1	22

Count		3.5.22_e: Pricing		
		Yes	No	Total
3.5.24_a: Strategic	Medium impact	2	4	6
	High impact	9	4	13
	Very high impact	3	0	3
	Total	14	8	22

Appendix H

Internal consistency Results

(Scale: ALL VARIABLES)

Questionnaire Section 3.1:

Case Processing Summary

		N	%
Cases	Valid	22	100.0
	Excluded ^a	0	.0
	Total	22	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.842	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
23.41	13.491	3.673	6

Questionnaire Section 3.2:

Case Processing Summary

		N	%
Cases	Valid	22	100.0
	Excluded ^a	0	.0
	Total	22	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items

Reliability Statistics

Cronbach's Alpha	N of Items
.801	5

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
17.36	18.719	4.327	5

Questionnaire Section 3.3:

Case Processing Summary

		N	%
Cases	Valid	22	100.0
	Excluded ^a	0	.0
	Total	22	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.833	8

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
27.41	34.539	5.877	8

Questionnaire Section 3.4:

Case Processing Summary

		N	%
Cases	Valid	22	100.0
	Excluded ^a	0	.0
	Total	22	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.900	13

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
38.91	89.706	9.471	13

Questionnaire Section 3.5:

Case Processing Summary

		N	%
Cases	Valid	22	100.0
	Excluded ^a	0	.0
	Total	22	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.942	21

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
63.14	234.885	15.326	21