Competitive intelligence in a multinational consulting engineering company

A case study

By

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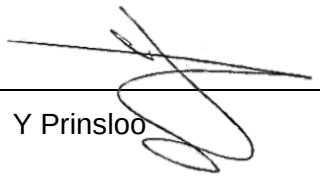
DECLARATION

I declare that the dissertation, Competitive intelligence in a multinational consulting engineering company, which I hereby submit for the degree Magister Informationis Scientiae at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

The author, whose name appears on the title page of this dissertation, obtained the applicable research ethics approval to conduct the research described in this work. The author declares that she has observed the ethical standards required in terms of the University of Pretoria's code of ethics for researchers and the policy guidelines for responsible research.



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This study would not have been undertaken or completed without the support of, and input from, my manager, Sonja, the wider management of the company under study and the colleagues who were willing to participate in the survey. You made the study possible and I hope that the knowledge gained will contribute positively to our competitive journey.

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Abstract

Intelligence is not a new concept and dates back to over 5000 years of Chinese history. The concept of competitive intelligence is, however, still an evolving field and consists of three main streams, i.e. military intelligence, national security and political science and business intelligence. The modern-day business interpretation of competitive intelligence has been changed and refined by various researchers, but the essence of these interpretations is the same and lies in the ethical gathering and interpretation of information to drive innovation and inform strategic decision-making. If successful, this assists companies in gaining a competitive advantage.

The consulting engineering industry is experiencing major disruptions, such as rapid advancement in technology, the global economic downturn and changes in the traditional business arena. To combat these disruptions and gain long-lasting competitive advantage and growth, competitive intelligence must not only be embedded in the culture of a company, but also form the cornerstone of innovation and inform strategic business decisions. The aim of this study was to determine how competitive intelligence is implemented in an anonymous multinational consulting engineering company. To establish this aim, the nature of competitive intelligence was firstly investigated by defining the competitive intelligence process, identifying the influencers and attributes of useful information, studying the need for and challenges of competitive intelligence implementation and exploring some of the competitive intelligence tools/techniques. Secondly, the need for establishing a competitive intelligence culture was examined by explaining the concept of corporate culture and exploring the ways to foster a competitive intelligence culture and community. The challenges relating to the implementation of competitive intelligence across borders were also examined. Thirdly, the relationship between competitive intelligence and innovation and competitive intelligence and business strategy were studied. Lastly, the types of information gathered, stored and distributed within the company as part of competitive intelligence activities and its importance to employees were investigated.

The research method of the study was a survey, the results of which were combined in 11 conclusive findings:

- The existing information function of the company is not used as part of competitive intelligence activities
- The business strategy is client-centric and the company views information on clients as most important
- The company relies heavily on people as sources of information

- War gaming is not seen as an important competitive intelligence tool, even though the industry is experiencing numerous disruptions
- The company has a weak knowledge-sharing culture, resulting in a silo effect complicated by the multinational nature of the company
- There is a need for a more formalised process, information repository/system and/or tools that will support information-sharing within the company
- There is insufficient awareness, support and use of intelligence by the senior and top management of the company to drive a knowledge-sharing culture and support competitive intelligence efforts
- The company views competitive intelligence as essential for gaining a competitive advantage, but is average when it comes to responding to changes in the business environment
- The company believes competitive intelligence has a positive influence on decision-making and strategies are updated regularly based on intelligence received
- Innovation is viewed as essential to the survival of the company and current initiatives to cultivate innovation should be expanded
- The multinational nature of the company significantly increases the need for a more disciplined focus on competitive intelligence.

Based on the findings, it was established that competitive intelligence is applied with relative success in some areas of the company, but that a more formalised approach will be beneficial. In conclusion, several actions the company could consider were recommended to enhance its current competitive intelligence activities.

1 Chapter one: Introduction

"Research is creating new knowledge." – Neil Armstrong

1.1 Introduction

"The realisation that knowledge and information are fundamental to economic growth, whether at national or company level, is beginning to permeate economic and management thinking" (Du Toit, 2003, p. 111). This realisation, grouped with current difficult economic conditions, fluctuating markets and increased competition, drives businesses to seek new and improved ways to gain a competitive advantage.

In the consulting engineering industry (as in all industries), the need to stay ahead of the competition is extremely important. Since 2008, with the economic downturn in the traditional (European and American) markets, the global industry has experienced unprecedented disruptions. These disruptions have included the entry of new, international companies into emerging markets; a surge in the number of mergers with and acquisitions of companies based in these emerging markets by large multinationals; the so-called Arab Spring, a wave of protests, riots and civil wars in the Arab League and surrounding countries and a subsequent downturn in the economies of that region; the global collapse in commodity prices, resulting in a significant downturn in the resources industry; and the rapid development of technology.

The effect of these global disruptions are making it more important than ever for companies, especially multinationals, to keep/increase their market share. To do this, it is imperative that they stay competitive through using available information and transforming it into actionable intelligence and foresight (Strauss & Du Toit, 2010, p. 305), i.e. competitive intelligence.

"Competitive intelligence is a process that increases marketplace competitiveness by analysing the capabilities and potential actions of individual competitors as well as the overall competitive situation of the company in its industry and in the economy" (Gray, 2005, p. 1). It is using information available in the public domain to gain the competitive edge by knowing one's competitors and their strengths and weaknesses, new and emerging technologies, market trends and more.

To ensure a long-lasting competitive advantage and growth, competitive intelligence must be embedded in the culture of a company (Viviers, Saayman & Muller, 2005, p. 586), used for

innovation (Sayyed, Sharareh, Azarnoush, Kianoosh & Zohreh, 2014, p. 30) and incorporated into strategic business decisions (Snyman & Kruger, 2004, p. 5).

1.2 Research problem

Competitive intelligence supports business needs in terms of the gathering, analysis/interpretation and distribution of information (Strauss & Du Toit, 2010, p. 304) and is important as part of the strategic management activities of companies. This study will focus on the implementation of competitive intelligence in a multinational consulting engineering company. The problem that will be investigated in this study is:

How is competitive intelligence implemented at a multinational consulting engineering company?

In order to solve this problem, the following sub-problems will be addressed:

- What is competitive intelligence?
- What influence do corporate culture and globalisation have on successful implementation of competitive intelligence?
- To what extent are innovation and business strategy linked to competitive intelligence?
- What types of information are gathered, stored and distributed within the company as part of competitive intelligence activities and how important is this information to employees?

1.3 Value and current status of research in research area

Although a substantial body of research is available on the nature of competitive intelligence and its implementation in contemporary companies, limited research is available about the formal implementation and maturity of the competitive intelligence function in specific industries and the implementation and benefits of competitive intelligence in multinational consulting engineering companies (Du Toit, 2015, p. 17; Solberg Søilen, 2013, p. 44). This dissertation will add to the research available and will highlight the importance for multinational consulting engineering companies to invest in and implement a competitive intelligence function and strategy.

1.4 Research approach and method

An extensive literature study on the competitive intelligence process, its implementation in companies and the tools/techniques for its implementation will be conducted. Furthermore, specific attention will be paid to the influence of corporate culture and cross-border intelligence efforts on the successful implementation of competitive intelligence. The influence of competitive intelligence on innovation and strategic decision-making will also be investigated.

The study will be executed by means of a survey distributed to employees of a multinational consulting engineering company to establish how competitive intelligence is implemented in the company. One hundred and twenty-two individuals will be included in the sample, representing the senior and executive management of the company. The findings of the study will be analysed to arrive at conclusions.

1.5 Overview of chapters/sections of the proposed dissertation

The following chapters are included in the dissertation.

Chapter two – This chapter will investigate the nature of competitive intelligence to solve the first sub-problem: "What is competitive intelligence?" To do this, some of the models available to examine the competitive intelligence process will be explored, the need for competitive intelligence in companies will be investigated and the challenges will be discussed. Following this, some of the analytical tools/techniques for the implementation of competitive intelligence will be explored. Lastly, the factors that influence the usefulness of intelligence and attributes that can be used to measure this usefulness will be studied.

Chapter three – In this chapter, the researcher will attempt to solve two sub-problems, namely "What influence do corporate culture and globalisation have on successful implementation of competitive intelligence?" and "To what extent is innovation and business strategy linked to competitive intelligence?" To solve the first sub-problem, the need for establishing a competitive intelligence culture will be examined by explaining the concept of corporate culture and exploring the ways to foster a competitive intelligence culture and community. Following this, the implementation of competitive intelligence across borders will be investigated. To solve the second sub-problem, the relationship between competitive intelligence and innovation and competitive intelligence and business strategy will be studied.

Chapter four – This chapter will present the research approach and methodology used to test the main research problem. The first phase of the research methodology, i.e. the study preparation and execution, will be discussed in detail.

Chapter five – The focus of this chapter will be the last phase of the research design, i.e. analysis and interpretation of the results. The results will *inter alia* be used to solve the sub-problem of the types of information gathered, stored and distributed as part of competitive intelligence activities within the company and the importance of this information to employees. To contextualise the research results, the consulting engineering industry will be discussed.

2 Chapter two: Nature of competitive intelligence

"Know thy self, know thy enemy. A thousand battles, a thousand victories." – Sun Tzu

2.1 Introduction

In this chapter about the nature of competitive intelligence, the competitive intelligence process and the need for competitive intelligence in companies will be discussed. The chapter also includes a study of some of the tools and techniques that can be used for competitive intelligence and investigates the benefits and challenges of successful implementation. In conclusion, the researcher will attempt to solve the sub-problem "What is competitive intelligence?"

2.2 Overview of competitive intelligence

Intelligence is not a new concept and dates back to over 5000 years of Chinese history. Historic texts and modern-day studies trace the first main stream of intelligence activity back to 500 BC with a set of essays entitled *The Art of War* by Sun Tzu, which forms the basis for many of the developments in military intelligence. Since then, intelligence activities have been developed by many other civilizations and countries. A second stream of intelligence activity, particularly in the United States of America, concerns national security as a policy issue and is linked to political science. The third stream, a more recent phenomenon, is a systematic orientation towards business intelligence in companies (Prescott, 1999, p. 37).

Although in existence for millennia, the modern-day concept was only formalised in 1980 by Professor Michael Porter of Harvard University when he developed a technique to analyse the external environment by including industries and competitors (Du Toit, 2003, p. 113). Since then, numerous writings and studies mention the gathering of information about competitors to improve positioning (Calof & Wright, 2008, p. 718). According to Du Toit (2015, pp. 15-16) the field of competitive intelligence experienced a boom during the 1990s resulting in less attention being paid to competitive analysis and increasing recognition to the fact that "good information has a direct impact on the bottom line". This recognition has led to the current understanding of intelligence being the essence of strategic management (Du Toit, 2015, p. 16).

Since the initial development of the concept of competitive intelligence by Porter, the definition has been changed and refined by various researchers. The Strategic and Competitive Intelligence Professionals (SCIP) (2014) organisation defines competitive intelligence as a necessary, ethical

business discipline for decision-making based on understanding the competitive environment. Strauss and Du Toit (2010, p. 304) define the concept as “an ongoing, systematic evaluation of the external environment for opportunities, threats and development that could have an impact on the company and influence reactive decision-making” and Gray (2005, p. 32) is of the opinion that it is “a process that enhances marketplace competitiveness by understanding individual competitors as well as the overall competitive situation of the company in its industry and in the economy”. Rouach and Santi (2001, p. 553) state that it is the “art of collecting, processing and storing information to be made available to people at all levels of the company to help shape its future and protect it against current competitive threat[s]”. Furthermore, they state that competitive intelligence should comply with legal requirements and codes of ethics and that the transfer of knowledge should happen within a set of established rules. Fuld + Company, a company specialising in competitive intelligence and strategic analysis, initially defined competitive intelligence as “the ethical collection and analysis of information that leads to a decision”, but has since refined this definition to “the delivery of timely, in-depth competitive and global insight while helping decision-makers illuminate the uncertainties of tomorrow’s market” (Fuld + Company, 2014). Jonathan Calof (2013, p. 35) argues that because of its ever-increasing importance to businesses, the concept of competitive intelligence is evolving into other, different terms, including market intelligence, insight, foresight and business analytics and that the emergence of all of these disciplines highlight the ever-increasing importance of intelligence.

It is clear that competitive intelligence is an ever-changing field of study, with numerous definitions being cited. However, in examining all the definitions, the essence of the concept stays the same – staying ahead of the competition by ethically gathering information, interpreting it and acting on it.

In the following section, the competitive intelligence process will be discussed.

2.3 Competitive intelligence process

Competitive intelligence is a process that consists of linked phases (Nasri, 2011, p. 56), where the output of one phase is used as the input to the next. Various models are used to describe this process, including cyclic processes, linear processes, four-point models, scientific methods and pyramids. The number of phases in each of these models differs – some have more phases than others – and the phases are placed at different stages in the process (Pellissier & Nenzhelele, 2013, p. 2). These different models and viewpoints create confusion in the competitive intelligence field. In the following paragraphs, the author will describe a few of the models.

2.3.1 Different models describing the competitive intelligence process

The SCIP (2014) describes the intelligence cycle as consisting of five stages. These stages include planning and direction, published information collection, primary source collection, analysis and production and finally, reporting and informing (Weiss, 2002, p. 42). From an organisational viewpoint, this process is flawed, as it does not include information capturing and storage. Furthermore, it does not take factors such as the influence of company decision-makers, organisational awareness and culture, process and structure into account (Pellissier & Nenzhelele, 2013, p. 3).

The need to apply intelligence results through feedback is addressed in varying degrees by the Ashton and Stacey Business Intelligence Process model (Figure 2-1) and the 4Cs process (Figure 2-2) (Weiss, 2002, p. 43). In these models, lessons learned are relayed back to improve future intelligence planning. The models furthermore recognise that intelligence activities arise from user needs and that information collected can result in modified requirements.

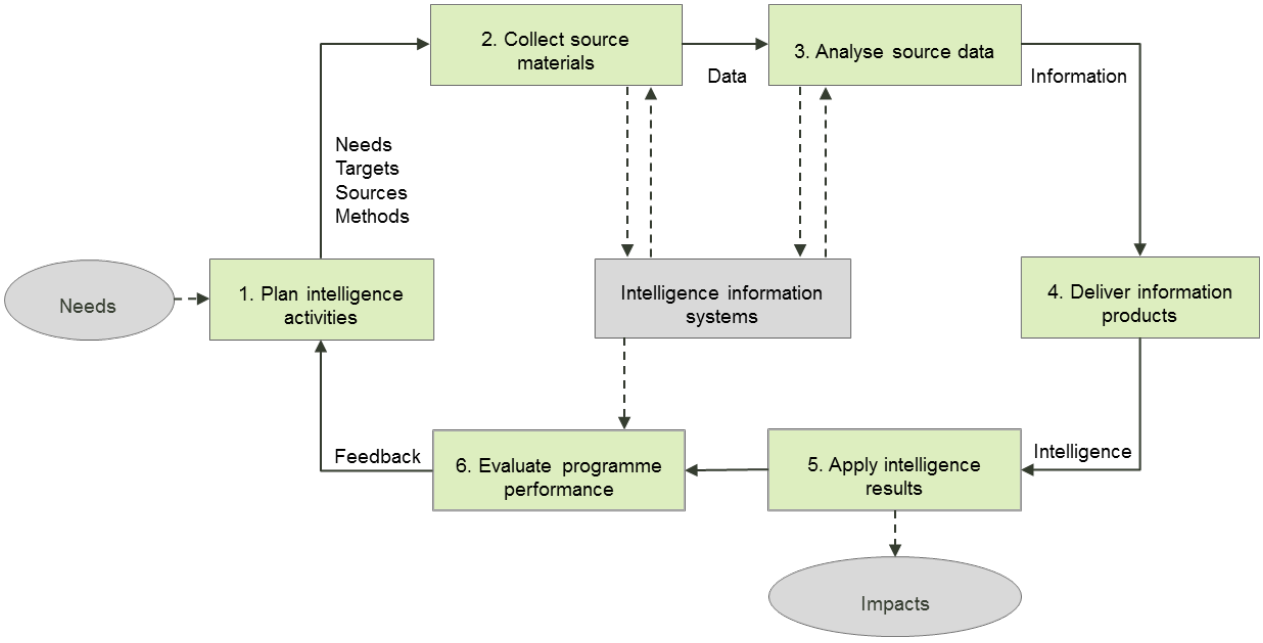

Figure 2-1: Ashton and Stacey Business Intelligence Process model (Weiss, 2002, p. 43)

The *Competitive Intelligence Dictionary* (Fuld + Company, 2012, p. 8) states that intelligence develops in a cyclical manner through the following four steps:

- Asking questions
- Collecting information
- Analysing information
- Delivering the intelligence to the individual(s) asking the question(s).

The definition further states that “when the intelligence is delivered, the person asking the question digests the intelligence delivered and may change the questions once again, starting the intelligence cycle all over again. This question-information-analysis-intelligence cycle may occur a few more times before the person asking the questions is satisfied and makes a decision. At that stage, the cycle stops” (Fuld + Company, 2012, p. 8).

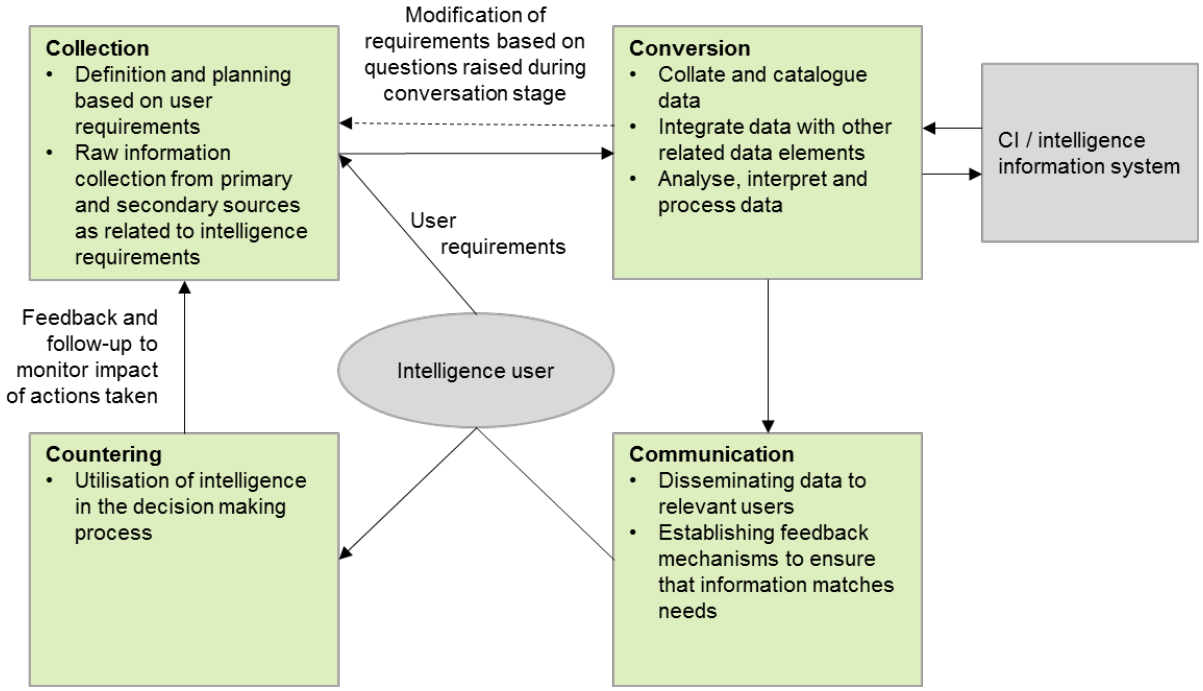

Figure 2-2: The 4Cs process model (Weiss, 2002, p. 43)

Gray (2005, p. 32) explains the competitive intelligence process through its relation to both business intelligence and knowledge management. Business intelligence, i.e. information from internal data sources, and knowledge management, i.e. the collected and shared intellectual capital of the company, are compiled, analysed, communicated to stakeholders, applied and acted on as part of the bigger competitive intelligence process. As with other models that are explained, this process is underpinned with continuous feedback from company decision-makers and other stakeholders requesting more/other information. The researcher has therefore adapted the process as described by Gray by adding the continuous feedback that forms part of the process in Figure 2-3.

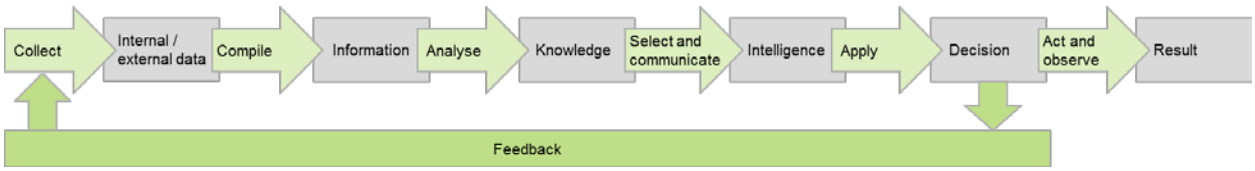

Figure 2-3: The competitive intelligence process as adapted from Gray (Gray, 2005, p.32)

Jaworski, Macinnis and Kohli (2002, p. 279) suggest a framework that is different from the sequential process of information planning, collection and analysis. They argue that the sequential process does not take the less structured and continuous way that information is generally gathered in companies into account. Their suggested framework consists of three distinct phases, including organising for competitive intelligence, searching for information and sense-making of the information. In turn, these phases are influenced by underlying factors related to the information network, business environment, information environment and the characteristics of the analyst.

2.3.2 A combined view

Taking all the different models into consideration, it is evident that there is no consensus about the stages and format of the competitive intelligence process yet. Saayman, Pienaar, de Pelsmacker, Viviers, Cuyvers, Muller and Jegers (2008, pp. 385-386) identify six key constructs in the competitive intelligence process i.e. planning and focus, collection, analysis, communication, process/structure and organisational awareness/culture.

Pellisier and Nenzhelele (2013, pp. 3-5) build on this research by identifying 12 common and unique phases and characteristics described in literature. These include:

- The cyclic nature of the process, i.e. the fact that the competitive intelligence process never stops and that the output of the one phase is the input to another
- Establishing the key intelligence needs at organisational and senior management level and narrowing it down to key intelligence topics (KITs) i.e. topics of most importance to the executives of the company, which provide direction for competitive intelligence operations. Information on KITs is then delivered to key decision-makers
- Planning and giving direction to competitive intelligence operations by defining the intelligence needs of key decision-makers and transforming these into information requirements. Knowledge of KITs is essential at this stage.
- Collecting publicly available information using both primary and secondary information sources. Primary information sources include government agencies, employees, clients and delegates at conferences, while secondary information sources include reports and

mass media such as magazines, TV and radio. Information can be collected using various sources, including websites, surveys, observation, media scanning and networking.

- Processing information captured and stored during the collection phase
- Analysing processed information to produce actionable intelligence. As described later in this chapter, methods of analysis include the political, economic, social and technological (PEST) method, Porter's five forces model, strengths, weaknesses, opportunities and threats (SWOT) and competitor profiling.
- Communication of actionable intelligence to decision-makers. This communication can take the form of dashboards, feedback meetings, reports, face-to-face discussion and e-mail.
- Using actionable intelligence to take action. This usually leads to key decision-makers identifying further/new intelligence needs, starting a new process.
- Continuous development of competitive intelligence professionals' skills in interpretation of KITs, information collection and analysis and intelligence dissemination
- Defining the formal and informal process and structure available for employees to contribute to, and gain from, the competitive intelligence process. This contribution plays a major role in the success of the function and employees should be encouraged to participate in activities.
- Creating organisational awareness of competitive intelligence and a culture of competitiveness. This requires continual training and instilling favourable attitudes with regard to intelligence and information sharing.
- Feedback from decision-makers and competitive intelligence professionals, allowing constant revision and adjustments and facilitating an atmosphere conducive to improvement.

Taking the above into consideration, Pellissier and Nenzhelele (2013, p. 6) define the competitive intelligence process model as shown in Figure 2-4.

In this comprehensive model, the cyclical and continuous nature of the competitive intelligence process is highlighted by the fact that the output of one phase is the input of another. Buy-in and support from senior management and employees is vital to the success of the process. Therefore, decision-makers, process and structure, organisational awareness and culture and feedback are placed at the centre of the model. Skills development is seen as part of organisational awareness and culture, which is why no distinct phase was added for this. Establishing competitive intelligence needs and planning and direction are combined in the phase 'planning and direction'. To eliminate confusion created by previous models, information collection, sorting and storing

and analysis are shown as three distinct phases. Decision-makers take action after dissemination of information, which is why there is no separate phase for taking action.

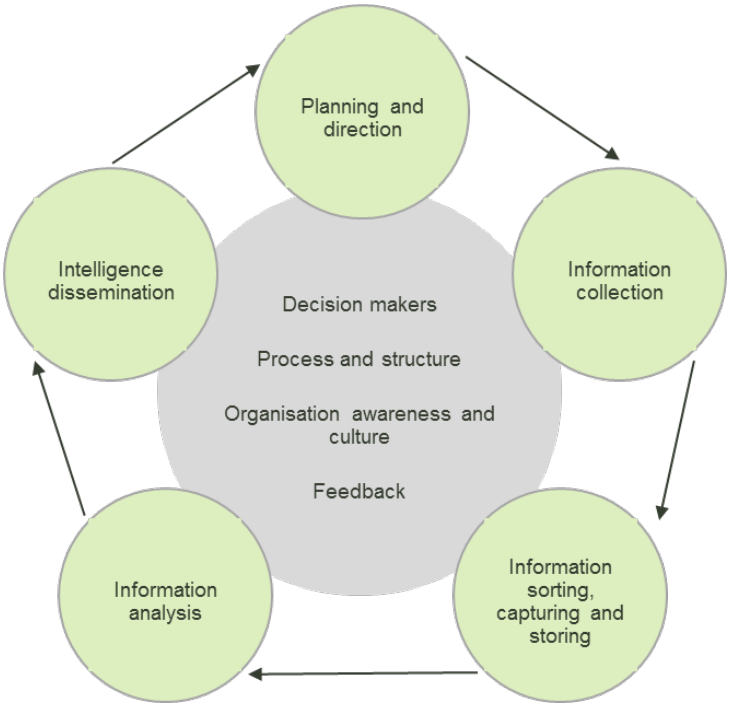

Figure 2-4: Competitive intelligence process model (Pellissier & Nenzhelele, 2013, p. 6)

Although differing views exist on the nature and number of stages of the competitive intelligence process, the underlying concepts in most processes are the same and critical to help companies make better decisions (Calof, 2013, p. 36). It is clear, however, that from an organisational viewpoint, the competitive intelligence process will be flawed without continuous feedback and the visible support and use of the intelligence by senior and top management (Jaworski & Liang Wee, 1992-1993, p. 27; Nasri, 2011, p. 56). Therefore, it is the view of the researcher that the process as described by Saayman, et al. (2008, pp. 385-386) and refined by Pellissier and Nenzhelele (2013, p. 6) clarifies some of the confusion concerning the stages in the competitive intelligence process.

The need for and benefit resulting from successful competitive intelligence programmes in companies will be discussed in the following section.

2.4 Need for and benefit of competitive intelligence in companies

Current difficult economic conditions, technological developments, globalisation, fluctuating markets, increased competition and commoditisation of products/services drive businesses to search for new and improved ways to gain a competitive advantage. For companies to stay competitive and sustain and grow their market share, it is imperative that they use available information and transform it into actionable intelligence and foresight (Strauss & Du Toit, 2010,

p. 305). Competitive intelligence focuses on turning information into this intelligence needed for tactical and strategic decision-making (Pretorius, 2013, p. 56) and is widely recognised as a technique for achieving the much-needed competitive advantage (Viviers, Saayman & Muller, 2005, p. 577).

Petrişor and Străin (2013, p. 106) state that a study by the Competitive Intelligence Foundation (2006) found that surveyed companies who implemented competitive intelligence were focused on achieving new/higher income, new products/services, cost savings/avoidance, time savings, increased profit and financial objectives. The organisational systems in the surveyed companies were focussed on certain KITs, including company profile(s), competitive benchmarking, early warning systems, market trends, customers' or vendors' profile(s), technology assessment, economic/political analysis and CEO profiling. Based on the focus and organisational systems of the surveyed companies, Petrişor and Străin concluded that competitive intelligence supports decision-making with regard to business strategy, sales and business development, market penetration, product development, research development or technology and partnerships.

The SCIP states that globalisation of business emphasises the need for disciplined focus on competitive and market intelligence insights (SCIP, 2013). This continuous striving for insight is effectively a corporate war where companies offer similar services/products and therefore have to fight for the same clients and territory (Aware: Competitive intelligence for business success, 2013). Competitive intelligence comprises a collection of knowledge and tools that can be used in this war, as it can help companies to:

- Take an appraising look at the competitive environment
- Identify competitors' thought processes
- Anticipate, through early warning, future opportunities and disruptions, such as new acquisitions/alliances and future competitive services/products
- Assess their own competitiveness through benchmarking of competitors
- Develop and shape strategies that will drive sustainable advantage
- Identify competitors' strengths and possible causes of their competitive shortcomings
- Shape counter-competitive strategies against one or more competitors
- Identify competitors' weaknesses and opportunities for competitive advantage
- Identify where competitors are vulnerable, can be attacked and where the risks of attack are too great
- Explore and fill knowledge gaps
- Share know-how in problem solving
- Create new knowledge and permanent learning

- Challenge conventional wisdom and question assumptions
- Meet the unique information needs of the company.

(Aware: Competitive intelligence for business success, 2013; Business Performance Management: Statements on Management Accounting, 1996, p. 3; Fuld + Company, 2014; Pretorius, 2013, p. 56).

Put differently, competitive intelligence can be seen as a way to manage “the entire competitive battlefield” (Pretorius, 2013, p. 56).

According to the *Global Benchmarking Project Update 2013* report by Fuld + Company, an increasing number of companies are taking up this ‘weapon’, as results show that, despite challenging market conditions, certain industries and regions have witnessed an increase in competitor monitoring efforts (Fuld + Company, 2013, p. 2). Studies have also shown enhanced competitiveness in companies that have implemented successful competitive intelligence functions (Viviers, Saayman & Muller, 2005, p. 583) as it drives business performance through increased market knowledge, internal relationships and the quality of strategic plans (Jaworski & Liang Wee, 1992-1993, p. 26).

Gilad (2011, p. 3) questions why competitive intelligence failed to make a real impact on companies’ C-suites in this time of ‘‘rising global competitive pressure’’ and argues that it is because companies never built real competitive intelligence capabilities. Instead, they created elaborate and detailed practices for closely monitoring competitors’ every move – something that should not matter that much to executives. He further states that executives do not need mountains of detailed analysis and information on competitors to try to anticipate their moves. What executives must focus on, is gaining particular insights on the competitive arena to identify ways in which the company can differentiate itself (Gilad, 2011, pp. 9-10).

This view is corroborated by a survey done in 1999, in which Vedder, Vanecek, Stephen and Cappel (1999, p. 113) concluded that the executive management of companies has to understand that effective competitive intelligence requires a steady, ongoing intelligence programme and that without this, the usefulness of the effort is significantly reduced.

Given the above, it is encouraging that the results of the *Global Benchmarking Project Update 2013* report state that the C-suite is paying much more attention to competitive intelligence, with over 28% of programmes in professional service/consulting companies and 22% of programmes in technology/telecommunication companies reporting to executive management (Fuld + Company, 2013, p. 3).

Competitive intelligence is regarded as an instrument to improve competitiveness and to contribute to the continuous improvement of the quality of products, services and solutions offered

by companies. It also plays an important role in increasing the level of innovation. The need for "intelligence" arose because of the decision-making process, which involves the development of different courses of action. Precise knowledge of the situation from the business environment and analysing in real time its supposed implications, imply complex and fast correlations, which are facilitated by the use of competitive intelligence.

There are a number of challenges related to the implementation of competitive intelligence in companies. These challenges are discussed in the following section.

2.5 Challenges of implementing competitive intelligence

It is evident that companies cannot be successful in the knowledge economy without competitive intelligence. In theory, the decision on implementation of the process and the resulting benefits seem to be logical. However, the actual implementation can be quite challenging.

One of the key challenges for implementation of competitive intelligence is to create the process and structures to be able to execute competitive intelligence as effectively and efficiently as possible (Frost, 2014, p. 1; Venter & Tustin, 2009, p. 93). These organisational structures can range from formal, centralised units to teams that are located virtually (Jaworski, Macinnis, & Kohli, 2002, pp. 283-284; Prescott, 1999, p. 46)

Another reason why companies have not rushed to create a strategic intelligence capability is that it is hard to define in advance what strategic intelligence analysts should look for (Gilad, 2011, p. 9). Gray (2005, p. 1) states that in the current knowledge economy, the problem is not lack of information, but indeed information overload. Sorting through the information to create useable and useful intelligence is the challenge.

Pretorius (2013, p. 63) lists four main obstacles related to the implementation of competitive intelligence in companies. Many obstacles are directly related to employees and include people, management, knowledge and structure. This viewpoint is supported by other researchers (Frost, 2014, p. 1; Sewdass, 2009, p. 47) who state that the challenges of implementation are exacerbated by:

- The negative attitudes of managers, resulting in inadequate management support
- The corporate culture not being conducive to competitive intelligence, i.e. lack of widespread contribution
- Previous failures resulting from the ineffective implementation of competitive intelligence programmes
- Lack of understanding of the strengths and weaknesses of the company
- Lack of skilled resources to conduct competitive intelligence

- The opinion that competitive intelligence adds an unnecessary burden on the bottom line
- Lack of measurable benefits
- Lack of relevance, quality, and usability of intelligence
- Overemphasis on formal learning, systematisation and determinant needs
- Lack of responsibility and ownership.

Multinational companies face further challenges with the implementation of competitive intelligence. The SCIP states that regional differences present unique challenges and companies must be in tune with those differences and dynamics to serve the global community effectively and position the company for growth (SCIP, 2013). Effective cross-cultural competitive intelligence requires local knowledge of the culture, language, sources of information and customs. Managers need to understand the cultural context of best practices in all locations to facilitate the implementation process. If this cannot be done, the challenges affecting cross-cultural transfer may actually diminish competitiveness, instead of enhancing it (Căpăţînă & Vanderlinden, 2012, p. 369).

Taking all of the challenges concerning the implementation of competitive intelligence into consideration, Gilad (2011, p. 9) is of the opinion that companies should not give up on developing this capability in-house. The only factor to consider is making implementation practical. Intelligence is not a process/function and its location in the company is unimportant. What is important though, is perspective (Gilad, 2011, p. 9).

A number of tools and techniques exist that can be used to assist in the implementation of competitive intelligence, some of which are discussed in the following section.

2.6 Tools and techniques

“More than ever, effectively seeing through or ahead of the competition is an art form (as opposed to a totally rational and structured technique), but one that is very accessible to those willing to learn its tools, techniques, and concepts” (Fuld, 2006, p. 6).

In total, there are over 100 analytical tools and techniques that can be applied individually or in combination to implement competitive intelligence (Fleisher & Bensoussan, 2015; Fleisher & Bensoussan, 2002; Pretorius, 2013, p. 62). These techniques include *inter alia* competitor profiling, SWOT analysis, environmental scanning, modelling and PEST analysis, industry-specific analysis, market segmentation analysis, Porter’s five forces analysis, financial analysis, win/loss analysis, scenario analysis and planning war games (Calof & Wright, 2008, p. 724; Fleisher & Bensoussan, 2015; Fleisher & Bensoussan, 2002; Gray, 2005, pp. 33-35; Pretorius, 2013, p. 62), social media and natural language processing (PwC, 2012).

In the following sub sections, these tools and techniques will be discussed in more detail.

2.6.1 Competitor profiling

The systematic analysis of the strengths and weaknesses of competitors is known as competitor profiling. Profiles are generally available in the public domain and can include background information on corporate structure, ownership, subsidiaries, and alliances; key staff and resources; the main business environment such as markets, competitors and clients; management style, corporate culture, financial performance and capacity; and corporate and market strategy (Prior, 2009, p. 8).

2.6.2 Environmental scanning

According to the *Competitive Intelligence Dictionary*, environmental scanning is a “term used to describe the action of watching and collecting information on a company's rivals and on the overall market” (Fuld + Company, 2012, p. 5). Put differently, environmental scanning is applied to gain better understanding of the environment inside and outside the industry in which the company operates. It looks at the macro-environment and considers aspects such as the global economy, actions and policies of governments, demographics of countries, availability of material sources, technological change and the impact of both internal and external stakeholders.

In the following sub sections, the tools and techniques that form part of environmental scanning will be discussed in more detail.

2.6.2.1 SWOT analysis

The analysis of one’s own strengths, weaknesses, opportunities and threats and those of competitors is commonly referred to as a SWOT analysis. This type of analysis is taught widely in business studies and is the sum of competitor intelligence for many companies (Gray, 2005, p. 34).

The SWOT analysis starts with environmental scanning, followed by analysis of information gathered on individual competitors. This is done through continuous monitoring of competitors’ strengths and weaknesses to identify possible opportunities and threats resulting from change (Prior, 2009, p. 16). Strengths and weaknesses can include aspects such as brand strength, distribution, sales, market share, service offering, cost structure, local presence and internet/social media presence.

2.6.2.2 Modelling and PEST analysis

Arguably, the most widely used environmental scanning model is PEST analysis. This model can be extended to include combinations of legal, environmental, educational and demographic factors.

2.6.2.3 Industry and market segmentation analysis

Environmental scanning limited to studies of individual industries is known as industry analysis and is done using comprehensive industry reports available from a number of service providers.

2.6.3 Porter's five forces analysis

Porter's five forces analysis is a universally applicable model describing the effect of five forces on an industry. These forces include the (Porter, 1979, pp. 137-145):

- Competition within the industry
- Threat of new competitors
- Influence of suppliers
- Influence of customers
- Threat of substitute products.

The model can be used to focus the analysis of the competitive environment of a company (Fuld + Company, 2012, p. 9).

2.6.4 Financial analysis

Financial analysis is primarily done by accounting/finance departments to assess competitors against past financial performance and future financial prospects.

2.6.5 Win/loss analysis

To find out why a major sale was won/lost, companies can do a win/loss analysis. This type of analysis involves assessment of the winning offer, including price and service offering. It can also include feedback from clients, with actual and perceived performance of one company in comparison with that of others (Rhodes, 2012).

2.6.6 Strategy games

Strategy games such as scenario analysis and planning and war games are used as methods to confront current issues in a virtual environment, i.e. a place where the options are more interesting and less intimidating than reality (Fuld, 2006, p. 12).

In the following sub sections, the tools and techniques that form part of strategy games will be discussed in more detail.

2.6.6.1 Scenario analysis and planning

Scenario analysis is also known as alternative outcomes analysis or 'What if?' analysis and is a systematic method to investigate and articulate probable events that may affect the company or its operating environment. It can be used to forecast trends, identify probable competitor strategies, evaluate the effect of emerging technologies or assess a potential merger, acquisition or alliance. Prior (2009, p. 37) states that it is a useful, long-term and highly objective analytical technique, but that it poses a risk, as the timing may not always be accurate.

Scenario planning uses scenario analysis to plan for, and respond to, probable future events identified. The plans usually cover a range from best case to worst-case probabilities.

Using this technique allows users to explore the implications of several alternative futures and learn from mistakes without risking real-life failure. It furthermore enables users to adapt the strategic direction of the company as needed (Prior, 2009, p. 38).

2.6.6.2 War games

War games constitute a process where individuals/teams representing the company and its competitors simulate a business situation by acting out the roles of decision-makers (Prior, 2009, p. 47). Sandman and Fuld (2003, p. 9) state that "the war game concept allows companies to test and recalibrate their strategies against the likely course of future events".

Similar to scenario planning, war games are used to understand changes in the current reality, such as threats from competitors, changes in the macro-environment and other disruptions. The difference is that war games are multi-player simulations in which members of a group each represents a particular role, such as competitors, management, stakeholders and the market. Team members have to respond to changes introduced by others. The simulation typically involves a number of rounds of action and reaction. In the current era of collaboration, war gaming may be more useful than ever, as it provides a tool through which companies can uncover potential conflicts between their multiple objectives and strategies (Sandman & Fuld, 2003, p. 11), something that is increasingly important when trying to navigate the multi-faceted business landscape.

According to research (Prior, 2009, p. 47; Sandman & Fuld, 2003, p. 11), the management of companies should consider using war-gaming when faced by disruptions, e.g. complex opportunities and/or threats, such as:

- The implementation of new technologies or service offerings by competitor companies altering the balance between competing companies
- Entry of new competitors into a traditionally stable market
- A changing competitive landscape due to the consolidation of clients or competitors within the industry
- Changes in the macro-environment, e.g. economic, political or regulatory change threatening to upset the market balance
- New emerging technologies or other forms of discontinuity.

2.6.7 Social media

In a technology forecast report, PwC (2012) defines social media intelligence as “the ability to mine the public social media cloud to collect business insights and act on them”. The process is based on understanding the essential value of what customers candidly discuss about products and services in public forums as part of basic market research and test marketing. In best scenarios, companies can uncover clues to help them revise products and marketing strategies.

2.6.8 Natural language processing

Natural language processing is computer-assisted language analysis, i.e. the extraction of meaning from text or speech. Originating in the intelligence community, natural language processing software has been used for several years to mine data from unstructured data sources. Recently, the focus has shifted to social media intelligence and marketing (PwC, 2012).

In the following section, the importance of quality intelligence gathered by using the tools and techniques described above is investigated.

2.7 Quality of intelligence

Information collected can only be actionable and classified as intelligence if it is future-focussed, pro-active, continuously monitored, needs perspective instead of precision, contains qualitative information, can be analysed and interpreted, can be transferred through knowledge sharing, is people’s business, contains published and unpublished information, translates external developments internally, is directly linked to decision-making and is linked to strategic management (Pretorius, 2013, pp. 62-63).

The quality of strategic and other decisions is highly dependent on the value of the intelligence provided during the dissemination phase of the competitive intelligence process. Jaworski, Macinnis and Kohli (2002, pp. 287-300) state that there are four factors that have an influence on the usefulness of intelligence. These factors are the:

- Competitive intelligence network, i.e. the informal information sources of the analyst(s). Larger and more established networks ensure that analysts are able to obtain more comprehensive, accurate information over a shorter period.
- Business environment, i.e. internal factors, such as reward and time allocation, and external factors, such as market pressure, influencing the quality of intelligence. Higher reward for employees for sharing information and more time available for sense-making have a direct influence on the comprehensiveness, timeliness and confidence in the correctness of the intelligence. Furthermore, difficult market conditions and more pressure from external sources such as key stakeholders, clients and competitors result in more formal processes and networks.
- Information environment e.g. the characteristics of the data to be analysed. This includes richness of information, divergence (conflicting information) and value of information. Greater richness and divergence will result in lower confidence in and timeliness of intelligence, while greater relative value results in lower accuracy, comprehensiveness and timeliness of information.
- Characteristics of the analyst, e.g. experience and job continuity. Improved job continuity will result in improved efficiency, timeliness, accuracy, comprehensiveness and confidence in the intelligence.

In support of this, a number of attributes exist that can be used to measure the value of intelligence (Nasri, 2012, p. 29; Pretorius, 2013, p. 58). These include:

- Accuracy, i.e. the correctness of the information and intelligence
- Clarity, i.e. whether the target group understands the intelligence
- Usability, i.e. the ease with which the target group can understand and apply the intelligence
- Depth, i.e. the more detailed the intelligence, the easier it will be for the decision-makers to define countermeasures
- Relevance, i.e. the significance and potential of the intelligence with regard to the daily operations and management of the company
- Responsiveness/readiness, i.e. the response time from when a question is asked by decision-makers at all levels of the company, to the delivery of the intelligence
- Timing, i.e. the timeliness of the intelligence and time available to react to the intelligence
- Comprehensiveness, i.e. how often the company is taken by surprise when significant events are not flagged by the competitive intelligence system/analysis.

2.8 Summary

In this chapter about the nature of competitive intelligence, the researcher attempted to solve the sub-problem of “What is competitive intelligence?” To do this, some of the models available in literature on the competitive intelligence process were investigated. Differing views exist on the nature and number of stages of the competitive intelligence process and it was concluded that the process as described by Saayman, et al. (2008, pp. 385-386) and refined by Pellissier and Nenzhelele (2013, p. 6) clarifies some of this confusion. However, the underlying concepts in most processes are the same and critical to help companies make better decisions (Calof, 2013, p. 36).

In the current challenging and ever-changing market, companies need to implement competitive intelligence to gain a competitive advantage and studies have shown enhanced competitiveness in companies that have implemented successful competitive intelligence functions (Viviers, Saayman & Muller, 2005, p. 583). It should be noted though that for competitive intelligence functions to be successful, they should by no means only analyse data on competitors in an effort to anticipate their moves, but rather add value by investigating ways in which the company can differentiate itself (Gilad, 2011, p. 10).

There are many challenges associated with successful implementation of a competitive intelligence function. These challenges range from a company culture that does not support knowledge sharing, to lack of support and use of intelligence by senior management and the C-suite. However, irrespective of the challenges, companies should not give up on developing a competitive intelligence capability and should consider practical solutions to making it work (Gilad, 2011, p. 9).

In total, there are over 100 analytical tools and techniques for the implementation of competitive intelligence (Fleisher & Bensoussan, 2015; Fleisher & Bensoussan, 2002; Pretorius, 2013, p. 62). A variety of these tools and techniques were investigated. Not all of the techniques work equally well and companies have to select the tool(s)/technique(s) or a combination thereof that will make implementation practical in their own company.

Good decisions can only be made if the intelligence distributed to senior management has value. Therefore, the four factors that influence the usefulness of intelligence (Jaworski, Macinnis, & Kohli, 2002, p. 287) were studied and a number of attributes that can be used to measure the usefulness of intelligence identified (Nasri, 2012, p. 29; Pretorius, 2013, p. 58).

It is not only the use of tools/techniques and practical implementation that are needed for the successful implementation of competitive intelligence. Management support and culture have an overriding influence on the successful planning and implementation of competitive intelligence activities (Pellissier & Nenzhelele, 2013, p. 2). Therefore, the need for establishing a competitive

intelligence culture, the implementation of competitive intelligence across borders and the link between competitive intelligence and innovation and competitive intelligence and business strategy will be investigated in the following chapter.

3 Chapter three: Influence of corporate culture and globalisation on implementation of a competitive intelligence function

"It's tough when markets change and your people within the company don't." – Harvard Business Review

3.1 Introduction

In the previous chapter the competitive intelligence process, benefits and challenges to implement an intelligence function, competitive intelligence tools/techniques and factors that influence the usefulness of intelligence were discussed.

In this chapter, the researcher will attempt to solve two sub-problems, namely the influence of corporate culture and globalisation on the successful implementation of competitive intelligence and the extent to which innovation and business strategy are linked to competitive intelligence. To solve the first sub-problem, the need for establishing a competitive intelligence culture and community and the implementation of competitive intelligence across borders will be investigated. Following this, the link between competitive intelligence and innovation and competitive intelligence business strategy will be explored in an attempt to solve the second sub-problem.

3.2 Competitive intelligence culture within companies

"Corporate culture refers to the shared values, attitudes, standards and beliefs that characterize members of a [company] and define its nature. [It] is rooted in a [company's] goals, strategies, structure and approaches to labo[u]r customers, investors and the greater community. As such, it is an essential component in any business's ultimate success or failure" (Inc., 2015).

Prior (2009, p. 10) adds that the shared set of values, beliefs and relationships results in learned behaviour transferred between individuals over time, while Hofstede (1980, p. 19) defines culture as "the interactive aggregate of common characteristics that influence a group's response to its environment."

Căpăţînă and Vanderlinden (2012, p. 367) build on this by defining corporate culture as a system of shared values within a company, making sense to the individuals and giving sense as a

managerial dimension. In a competitive intelligence context, culture emphasises what the members of a company pay attention to and monitor in the external environment and how the company responds to this environment.

Establishing a competitive intelligence culture within a company is a key element of the success of any competitive intelligence effort. For the competitive intelligence process to succeed, visible awareness and use of the intelligence by senior and top management are of key importance (Nasri, 2011, p. 56). However, even though these key decision-makers (management) are the primary users of competitive intelligence, the constant gathering of information should be the responsibility of all within the company (Kahaner, 1997, p. 53).

Qui (2008, p. 827) states that managers are embedded in companies and are therefore significantly influenced by the cultural orientation of the particular company. Highly market-oriented companies provide a supportive culture for managers to commit to proactively gathering intelligence. In contrast, less market-oriented companies discourage managers from conducting rigorous gathering of information for competitive intelligence (Qui, 2008, p. 827). It is for this reason that management support, culture and organisational structure should take precedence when planning the implementation of competitive intelligence activities (Pellissier & Nenzhelele, 2013, p. 2; Saayman, et al., 2008, p. 386). Without proper awareness and attitudes that favour information gathering and sharing, i.e. a competitive intelligence community within the wider company, it is difficult to develop intelligence within companies (Căpăţînă & Vanderlinden, 2012, p. 368; Nasri, 2012, p. 29; Viviers, Saayman & Muller, 2005, p. 581).

Before pursuing competitive intelligence activities within a company, it is important that key decision-makers understand that, as with all organisational culture changes, a successful competitive intelligence programme takes time to develop. Viviers, Saayman and Muller (2005, pp. 585-586) state that there are many ways for companies to foster a competitive/competitive intelligence culture and community. These include:

- Making the necessary changes in the organisational structure to accommodate integrating mechanisms, such as a central point of information
- Appointing competitive intelligence coordinators throughout the company (Jaworski & Liang Wee, 1992-1993, p. 26)
- Creating an intelligence database
- Having continuous competitive intelligence awareness, sensitisation and training sessions. During these sessions, the focus should be on informing employees what competitive intelligence is and what they can contribute, as well as demonstrating the value of sharing information. Such sessions should also assist in informing staff what they should be looking for and what should not be shared outside the company.

- Rewarding staff for collecting and sharing information and knowledge (Jaworski, Macinnis, & Kohli, 2002, pp. 293-294; Venter & Tustin, 2009, p. 93). The reward can be both tangible, in the form of bonuses or once-off rewards, and intangible, in the form of status and recognition (Alony, Whymark & Jones, 2007, p. 53). Tangible reward can create dissatisfaction in those who do not benefit, which might be the reason companies do not reward knowledge sharing per se. There are, however, other novel approaches to reward. This includes free software licences to motivate staff to contribute ideas and comments to knowledge bases and using personal recognition systems where the number of hits on a site is used to influence decisions (Scarbrough, 2003, p. 503).
- Encouraging regular discussions about competitive intelligence and the importance of a learning/knowledge-based culture at meetings
- Joining forces with academia, the public and private sector as well as international experts to improve long-term results
- Establishing practical codes of ethics to guide employees on what should not be part of competitive intelligence efforts.

Căpăţînă and Vanderlinden (2012, pp. 368-369) explain that a competitive intelligence community represents the pillar of a competitive intelligence culture and must be characterised by certain natural traits, imparted skills and experience. These include creativity, persistence, communication skills, analytical ability, understanding of scientific methodology, independent learning ability, strategic thinking, understanding of business terminology, market research and presentation skills, knowledge of primary information sources and research methods, knowledge of corporate power structures and decision-making processes, relevant industry knowledge, enhancement of primary research skills and journalistic interviewing and observational skills.

In summary, in order to enhance the competitive intelligence culture within a company, competitive intelligence should be integrated throughout the company, embedded in and aligned with the company's infrastructure, reflect trends in the industry and be adaptable to change (Viviers, Saayman & Muller, 2005, p. 586).

This integration can however be more difficult in multinational companies and factors to consider are discussed in the following section.

3.3 Cross-cultural and cross-border competitive intelligence

Globalisation creates the impression that it brings about a common set of cultural ground rules. For many companies that are just entering the global market, this impression comes with a belief that all competitors have the same motivations and the same principles, while in reality globalisation really just brings together different cultures sharing a common language (most often

English) (Bonthous, 1993, p. 12; Glitman, 2013, p. 1). The SCIP (2013) states that globalisation of business is emphasising the need for disciplined focus on competitive and market intelligence insights. Regional differences present unique challenges and companies must be in tune with those differences and dynamics to serve the global community effectively and position the company for growth.

Adidam, Gajre and Shubhra (2009, p. 678) state that cross-cultural competitive intelligence is complex and often companies fail in their efforts because of misjudgement and poor understanding of the cultural, social and political environment. It is imperative for companies not only to be familiar with business ethics and practices, but also to have in-depth knowledge of cultural and other factors so that competitive intelligence can be leveraged from this. Glitman (2013, p. 1) states that for competitive intelligence to go multinational/global, three aspects, namely the legal environment, the cultural and ethical situations and the availability of information, are of great importance.

It should not be surprising that the legal environment differs across borders and while there are broad legal principles that are implemented across nations, the differences can complicate competitive intelligence efforts. According to Glitman (2013, p. 1), the most significant legal impacts of globalisation, from a competitive intelligence perspective, cover issues such as privacy, how national laws address personal and corporate privacy in relation to competitive intelligence, the definitions of intellectual property, when information is considered to be in the public space and what is considered to be matters of national security. He furthermore states that knowing what kind of information is sensitive, even if it can be found in open sources, will help guide research.

Diverse cultural factors affect cross-cultural and cross-border competitive intelligence, and companies need insight into the cultural dynamics affecting a society for competitive intelligence efforts to succeed. Glitman (2013, p. 2) is of the opinion that for the competitive intelligence professional, culture has an impact on expectations, response to and regard for authority, loyalty, trust, honour and status. He explains that these aspects influence competitive intelligence in two ways:

- Information openly available in one country/culture will be tightly controlled in another. There are great differences in the kinds of information available across countries. This can be based on a combination of factors, including local regulations, local cultures and level of access to commercial databases and company directories. This information may be easier to find in countries where there is a dynamic market for business information as opposed to countries with strong privacy laws. To combat this, competitive intelligence

efforts should include a diverse range of information sources based on what is available in each country.

- Responses to competitive intelligence inquiries in one country will generate different responses in another. In high openness and low authority Western cultures, participants may be comfortable telling a more senior person in the company that they do not have the answer to a question or disagree with a conclusion. This is in sharp contrast with high honour and high authority Asian cultures, where subordinates will be very uncomfortable saying they do not know the answer and even more uncomfortable disagreeing.

Navigation between cultures requires a skilful touch, sensitivity to differences masked by the common dress and language and an ability to penetrate behind the first reply to the deeper meaning (Glitman, 2013, p. 2).

Adidam, Gajre and Shubhra (2009, p. 667), on the other hand, state that cultural factors and ways of conducting competitive intelligence differ in terms of motives, technologies and systems for data collection. Both, however, agree that ethical standards play a significant role. Glitman (2013, p. 2) warns that it is important to realise that what is legal and/or ethical in one country/culture may be highly illegal/unethical in another. He states that adjusting local competitive intelligence practice to fit views of what is unethical or illegal in the originating country is a mistake. Similarly, it is not recommended to follow practices that are ethical and legal in one's own country if they are not ethical or legal in the target country.

The challenges of cross-cultural implementation may actually diminish competitiveness, instead of enhancing it, and companies must understand the cultural context of best practices, both in the originating and target countries, to overcome these challenges (Căpăţînă & Vanderlinden, 2012, p. 369). Adidam, Gajre and Shubhra (2009, p. 677) developed a five-step process for developing a cross-cultural competitive intelligence programme. The steps are:

- Defining requirements, i.e. being aware of the cultural, social and economic differences between the originating/home country and target country
- Assigning a cultural leader, i.e. someone who is knowledgeable about different cultures and is fluent in the country's local language(s)
- Organising cross-cultural competitive intelligence structures, i.e. identifying team members, taking their cultural backgrounds into consideration, and developing a common language and ethical framework for the cross-cultural competitive intelligence project
- Collecting and analysing information i.e. learning as much as possible about the industry in the foreign country and keeping the cultural context in which the information was collected in mind. The collected information must also be analysed taking the cultural constraints with regard to sharing intelligence into consideration.

- Disseminating intelligence, i.e. as sharing intelligence with decision-makers is the outcome of any competitive intelligence process, decision-makers must be educated on cultural challenges of converting information into intelligence in cross-cultural projects.

Although information on companies in the global arena can be accessed remotely, in-depth and face-to-face interviewing is essential. In general, the errors companies make when trying to implement cross-cultural competitive intelligence stem from (Adidam, Gajre & Shubhra, 2009, p. 668):

- Poor knowledge of local business culture. Knowledge and understanding of business practices cannot be transplanted from one country to the other and companies should consider local customs. If this is not done, access to key decision-makers can become difficult, which in turn influences timelines.
- Lack of thorough assessment project assessment. Cultural factors that may influence project delivery, such as level of detail needed, availability of staff with appropriate skills, language, data and costs involved should be considered as part of the project scope.
- Poor ability to manage cultural diversity. Countries are very different in terms of business practice and data sources. In many countries, multiple languages/dialects of the same language are spoken. Overlooking something as basic as language can have a negative influence (Venter & Tustin, 2009) on project implementation.
- Lack of patience and persistence. As stated previously, local customs and business practice ethics should be considered. In many countries, it is the custom to meet face to face or to discuss family and other issues before commencing with business to first establish an acquaintance and eventually trust. Lack of patience for such customs will result in failed efforts.

Globalisation has brought the world closer, and doing business in other countries in order to grow and increase profits has become inevitable (Adidam, Gajre & Shubhra, 2009, p. 678). This also means that competitors can come from anywhere and it is a mistake to assume that they will all follow the same rules of engagement and that the competitive intelligence one can obtain by approved methods in one's home country will get one equal results in another. The challenge of global competitive intelligence requires adjusting expectations to match local conditions (Glitman, 2013, p. 2). Therefore, to beat the competition in today's highly globalised economies, companies doing international business must have cross-cultural awareness engrained in their competitive intelligence efforts (Adidam, Gajre & Shubhra, 2009, p. 678).

In conclusion, Glitman (2013, p. 2) states that with proper preparation and guidance, intelligence efforts in multinational/global operations can be highly successful. He is of the opinion that competitive intelligence professionals are in an advantageous position to help with these efforts

if companies draw upon their well-established skills in data collection, analysis and strategic planning.

In the next section, the link between competitive intelligence and innovation will be explored.

3.4 Competitive intelligence and innovation

Nonaka (1994, pp. 14-15) describes innovation as a process through which a company creates and defines problems and then actively develops new knowledge to solve those problems. He argues that innovation is produced by one part of the company, which in turn creates a stream of related information and knowledge, triggering changes in the company's wider knowledge systems. This information and knowledge are diffused and converted into new or improved products, processes, techniques, services, devices or the company itself, thereby creating the ability to change or adapt (Andersen, Murphy, & Börsch, 2016, p. 72; Hussein, Farzaneh, & Farham, 2011, p. 940; Prior, 2009, p. 22). Put differently, innovation is the creation and commercialisation of new knowledge and the introduction of new ways of doing things through which companies start to change themselves and the environment (Sayyed, et al., 2014, p. 29).

Innovation is crucial to the success and survival of companies. In the current digital and knowledge-driven economy, where innovation cycles are shrinking, companies rely heavily on individuals to engage in innovative activities (Andersen, Murphy, & Börsch, 2016, p. 72). As cited in Forbes (2015), Cashman states that "the real value-creating sources of innovation are internalised in the networks of engaged, collaborative, diverse groups of people committed to a common purpose that serves and contributes continually in new ways". The role of knowledge in these innovative activities and networks has increasingly been realised in recent years and a number of studies exist on the impact of innovation on organisational and regional competitiveness (Auernhammer, Neumann, Leslie & Lettice, 2003, p. 53; Hussein, Farzaneh & Farham, 2011, p. 940). Prior (2009, p. 22) identifies three characteristics that successful, innovative firms have in common. These include:

- An excellent communication strategy – particularly outside of the company
- Willingness to look for information using the most profitable sources and share it – both internally and externally
- An appropriate reward structure for identifying and exploiting new ideas.

As stated earlier, innovation can be based on a technique, product, process, device, service offering or the company itself, with its scope ranging from radical/disruptive to incremental/evolutionary. Depending on the type, complexity and scope, the role of knowledge and intelligence in the innovation process is crucial, as new knowledge needs to be created and intelligence applied from very different contexts. It is a common misconception that innovation is

completely original. Innovation begins with creative ideas generated individually and in teams, and is necessary for competitive intelligence generation (Sayyed, et al., 2014, p. 30).

For incremental innovation, i.e. the reworking of existing knowledge, the importance lies in the re-use and diffusion of such knowledge to create a new problem-solving product/service offering (Auernhammer, et al., 2003, p. 54; Prior, 2009, p. 22). This is especially important in specialised field(s) and/or where staff have specific skill sets, such as consultants, software engineers and data analysts. Many industries do not have established research and development (R&D) departments and are forced to lean on all staff to embody an innovator mind-set (Andersen, Murphy, & Börsch, 2016, p. 72).

The importance and uptake of innovation differ between industries and markets (SCIP, 2013). In fast-growing sectors where there is a high speed of technological development, knowledge and the resulting intelligence and innovation (Sayyed, et al., 2014, p. 30) are key for being able to compete globally. It is furthermore the dominating resource for the production of added value (Auernhammer, et al., 2003, p. 53), it is the single most important building block of competitive advantage and a key ingredient of growth (Auernhammer, et al., 2003, p. 53; SCIP, 2013).

In the following section, the relationship between competitive intelligence and business strategy will be discussed.

3.5 Competitive intelligence and business strategy

“Companies that will prosper and outpace their competitors will be those that will be able to out-think their competitors strategically” (Snyman & Kruger, 2004, p. 9). Strategists (key decision-makers and intelligence teams) should appreciate the major impact of knowledge on the formulation of corporate strategy and company success (Snyman & Kruger, 2004, p. 5). Bulley, Baku and Allan (2014, p. 83) agree by saying that competitive intelligence adds value to a planning process and decision-making of a company and that the linkage between competitive intelligence and strategic management is a critical process.

There is a number of steps a company can take to develop a competitive intelligence function with a strategic focus. The management of the company must firstly understand the importance of competitive intelligence and allocate enough resources or budget for the operation of such a function. Early warnings must secondly be effectively communicated to key stakeholders, as poor management and usage of intelligence are major risks to successful implementation if this is not done successfully (Bulley, Baku & Allan, 2014, p. 85). Key decision-makers must also know what information they need intelligence professionals/teams to provide (Fahey, 2007, p. 4), be prepared to factor early warnings into their strategic planning and willing to respond to disruptive events (Fuld & Chodnowsky, 2010, p. 3).

Gilad (2011, p. 10) is of the opinion that one way to build a competitive intelligence capability is to ensure the person taking “on the role of voicing the strategic intelligence perspective [is] a rising star in the company”. He argues that it is of less importance whether the task of intelligence is a full-time or part-time responsibility; what is more important is that it is part of an executive development track. Gilad further suggests that an alternative method to build intelligence capability may be to create ‘‘crack teams’’, i.e. teams of young stars who pick apart ‘‘strategic initiatives’’ using tools and techniques such as war gaming. Gilad argues that this will ensure that future leaders are exposed to the wider industry and that current key decision-makers continually discuss strategic risks and opportunities.

Fahey (2007, pp. 4-5) states that key decision-makers are ultimately interested in answering three questions with regard to strategy:

- If (and how) current strategy should be changed
- How the strategy can be better executed
- What the future strategy should be.

To be able to add insight when answering these questions, intelligence professionals should know and understand the company’s current strategy, be familiar with possible future strategies, be comfortable in the language and conversations associated with strategy and perform strategy analysis and intelligence work as if they were the same thing (Fahey, 2007, pp. 4-5).

When looking at what these intelligence inputs to strategy should address and how intelligence professionals can generate insights that will be relevant across different types of strategies or even different kinds of companies, Fahey (2007, p. 5) states that five strategy inputs, i.e. marketplace opportunities, competitor threats, competitive risks, key vulnerabilities and core assumptions, are needed. Each of these intelligence inputs requires considerable judgment and value-add on the part of intelligence professionals. It furthermore enables all members of the management team to engage in more intelligence activities – that is, better informed – dialogue on the three strategy questions noted above.

In the following sub sections the five strategy inputs as identified by Fahey (2007, p. 5) will be discussed in more detail.

3.5.1 Marketplace opportunities

Strategy is ultimately about creating new marketplace opportunities by constructing new ways of creating and delivering value to customers. These opportunities can take the form of new products/service offerings, extending existing product lines or reconfiguring existing services and solutions (Fahey, 2007, p. 6). Marketplace opportunities can be explained as consisting of two categories, i.e. extended existing/current opportunities and new potential opportunities.

- Extended existing/current opportunities. These opportunities, usually short-term, are centred on identifying ways to modify the current strategy to add value for customers.
- Potential marketplace opportunities, i.e. longer-term opportunities that will assist with focusing future strategy. Actions for intelligence teams when assessing these opportunities include:
    - Following regulatory developments to forecast regulations that have the potential to open up access to new markets and/or allow the sale of specific products
    - Tracking and projecting research and development progress in specific markets or industries to identify potential new product breakthroughs
    - Conducting patent analysis to identify patterns in the transition from research to technology developments likely to lead to new/significantly modified products
    - Using projections of competitor strategies to identify potential new products and thus emerging customer needs
    - Using projections of technology developments in specific product areas to identify new products, service offerings or solutions.

To facilitate discussion about marketplace opportunities, the key decision-makers must ‘‘challenge’’ the intelligence team to identify and shape new opportunities. The intelligence team must furthermore demonstrate that it is fully committed to learning about the company’s strategy and assess current and potential marketplace change to identify possible opportunities (Fahey, 2007, p. 6).

3.5.2 Competitor threats

“Strategy must win against rivals” (Fahey, 2007, p. 7). Put differently, if it had not been for the presence of current and potential competitors and their actions that threaten a strategy’s success, opportunities would be easier to realise. Gilad (2011, p. 5) states that the process of looking for competitor threats and providing strategic intelligence is distinctly different from competitor watching. He argues that competitor watching has little relevance to the concerns and tasks of key decision-makers and most business declines have little to do with direct competitors. Competitors may expose the underlying strategic problem, but they are rarely the strategic threat itself (Gilad, 2011, p. 5). According to Fahey (2007, p. 7), for companies to be able to act on threats, intelligence teams should establish:

- How the current strategy of the company will be most adversely affected by the competitors
- Which competitors are most likely to do so

- What the best way is to manage these threats, i.e. what the implication of current strategy is for potential opportunities and winning against rivals.

This once again illustrates that intelligence value is not so much rooted in the identification of current threats, but rather in assessing competitor strategy and operational implications associated with turning the treats into strategic meaning (Fahey, 2007, p. 7).

3.5.3 Competitive risks

In addition to marketplace opportunities and competitor risks, market change is another factor that drives long-term strategy. Market change can be driven by customers, channels, suppliers, governmental agencies, technology and politics and is a source of competitive risk, i.e. a risk that could affect the current strategy of the company negatively (Fahey, 2007, p. 8).

Fahey (2007, p. 8) suggests that to mitigate these risks, intelligence teams should inform key decision-makers as early as possible of potential market changes that could influence current/potential future strategy. This intelligence can have a significant impact on key decision-makers' understanding of an opportunity/strategy alternative and influence the final "go/no go" decision. To identify this market and strategy related risk, i.e. competitive risk, intelligence teams should establish:

- What competitive risks the current strategy faces
- What competitive risks might emerge in future
- The best ways are to manage these risks.

In responding to these questions, intelligence teams are forced to look beyond obvious trends and patterns to isolate risk and identify how this risk might influence opportunities. As with competitor threats, identification and assessment of competitive risks focus intelligence work on shaping strategy inputs and facilitate discussion by key decision-makers on the three core strategy questions (Fahey, 2007, p. 9).

3.5.4 Key vulnerabilities

When strategy is assessed against opportunities, threats and risks and key vulnerabilities, i.e. things the strategy is most vulnerable to and that the company can least control, should also be identified (Fahey, 2007, p. 11).

Fahey (2007, p. 11) states that, as in the case of threats and risks, vulnerabilities may be due to the actions of stakeholders in the competitive space, such as rivals, regulatory agencies or technology developers, or to change reflected in events, patterns and discontinuities. Identifying vulnerabilities forces analysis and ranking of current and potential threats and risks to identify those that could most severely impede a strategy's success. It furthermore forces intelligence

professionals to test assumptions about threats and risks in order to identify those that would have the most significant negative effect if proven incorrect.

When vulnerabilities are identified, intelligence teams assess the strategy implications of each vulnerability and this is then addressed in discussions among key stakeholders. These discussions can lead executives to new insights about the competitive context and what is required to win against a competitor (Fahey, 2007, p. 11).

It can be said that each identified vulnerability serves as a key strategy input, as it forces the management team to consider what they would do if the vulnerability were to occur and poses the question to decision-makers whether such vulnerabilities represent ‘‘blind spots’’ in their strategy development and execution (Fahey, 2007, p. 11).

3.5.5 Core assumptions

By definition, any strategy is based on assumptions about the future. However, very few companies isolate, challenge and refine the pivotal assumptions underpinning this strategy as a routine part of strategy-making. Herein lies an opportunity for the intelligence team to go beyond detecting and interpreting the likely direction of marketplace change by identifying, testing and assessing key assumptions about specific strategies that the executive team seems to be making or that it may need to make but is not making (Fahey, 2007, p. 9).

To support the process, Fahey (2007, p. 9) identifies three questions key decision-makers can ask about assumptions, i.e.:

- What assumptions about marketplace change underpin the current strategy?
- What assumptions should decision-makers have about emerging and potential marketplace change?
- If assumptions have to be changed, what are the implications for strategy change?

To address these questions, intelligence professionals can analyse the current strategy, potential strategy alternatives and ‘‘guiding’’ marketplace assumptions. The output of this analysis will be a set of critical insights, i.e. key assumptions on the change in the external world, to key decision-makers (Fahey, 2007, p. 9).

In conclusion, it is evident that intelligence teams have to emphasise strategy inputs, alert key decision-makers in management to the presence and relevance of each input as early as possible, and, most importantly, engage with key decision-makers on the data and reasoning associated with each strategy input. However, no process seems to work when key decision-makers turn a blind eye to risks (or opportunities) – no matter how comprehensive and insightful (Fuld & Chodnowsky, 2010, p. 4; Gilad, 2011, p. 10). Therefore, a commitment to following these

broad guidelines will result in a significant shift in the intelligence modus operandi in most companies, generating real strategy value (Fahey, 2007, p. 12).

3.6 Summary

In this chapter, the researcher attempted to solve two sub-problems, namely “What influence do corporate culture and globalisation have on successful implementation of competitive intelligence?” and “To what extent are innovation and business strategy linked to competitive intelligence?”

It is clear from previous studies that management support, culture and organisational structure have an overriding influence on the successful planning and implementation of competitive intelligence activities (Pellissier & Nenzhelele, 2013, p. 2; Saayman, et al., 2008, p. 386). Establishing a competitive intelligence culture in a company is a key element to the success of any competitive intelligence effort and a number of ways to do this were investigated.

A further aspect influencing the successful implementation of competitive intelligence is the multinational/global nature of companies. Diverse cultural factors affect cross-cultural and cross-border competitive intelligence, and companies need insight into the cultural dynamics affecting a society for competitive intelligence efforts to succeed.

Taking the above into consideration, it is evident that corporate culture is key to the successful implementation of competitive intelligence and that companies doing international business must have cross-cultural awareness engrained in their competitive intelligence efforts (Adidam, Gajre & Shubhra, 2009, p. 678).

Innovation is seen as the single most important building block of competitive advantage, and therefore had to be included as part of the study into competitive intelligence culture in companies. Previous studies show that innovation is crucial to the success and survival of companies and a number of studies exist on the impact of innovation on organisational and regional competitiveness (Auernhammer, et al., 2003, p. 53).

Similar to innovation, strategy can be a key differentiator of a company and the linkage between competitive intelligence and strategic management is critical as it adds value to the planning and decision-making process (Bulley, et al., 2014, p. 83). Intelligence professionals should know and understand the company’s current strategy, be familiar with possible future strategies, be comfortable in the language and conversations associated with strategy and perform strategy analysis and intelligence work as if they were the same thing (Fahey, 2007, pp. 4-5).

When looking at what intelligence inputs to strategy should address and how intelligence professionals can generate insights that will be relevant across different types of strategies or even different kinds of companies, Fahey (2007, p. 5) states that five strategy inputs, i.e.

marketplace opportunities, competitor threats, competitive risks, key vulnerabilities and core assumptions, are needed.

In conclusion, the success of competitive intelligence in companies is closely related to an organisational culture where key decision-makers support and use the intelligence. For such a culture to be established and cultivated, intelligence professionals should not simply gather data, but add context to the information gathered to ensure the intelligence is of value. This intelligence, if seen in context and discussed continually in a knowledge sharing/collaborative environment, can have a significant impact on innovation and strategy formulation and implementation in a company.

4 Chapter four: Research

"Only theory can turn a heap of facts into a tower of knowledge" - Andreas Wagner

4.1 Introduction

In the previous chapter, two sub-problems, namely the influence of corporate culture and globalisation on the successful implementation of competitive intelligence and the extent to which innovation and strategy are linked to competitive intelligence, were investigated. It was concluded that competitive intelligence in companies is closely related to an organisational culture of knowledge sharing/collaboration, which is a key ingredient of innovation. It was established that diverse cultural factors affect cross-cultural and cross-border competitive intelligence and that companies need insight into the cultural dynamics in a society for competitive intelligence efforts to succeed. Lastly, it was established that support by key decision-makers for intelligence used in strategy formulation and implementation is crucial for gaining, and maintaining, a competitive advantage.

In this chapter, the empirical study through which the main research problem for this study will be tested will be presented. The research approach, method and design used to establish how competitive intelligence is applied in a multinational engineering company will be described and the theory that led to the approach discussed. Lastly, the research limitations will be listed.

4.2 Research approach and method

In the following sub sections, the research approach and method will be described.

4.2.1 Qualitative versus quantitative research

Empirical research is a way of gathering information directly or indirectly. Guest, Namey and Mitchell (2013, p. 3) state that the information gathered is known as empirical evidence, and is analysed through quantitative, qualitative or mixed research methods.

Quantitative research generates statistics through the collection and analysis of numerical data (through surveys, historic data and experiments), while qualitative research explores attitudes, behaviour and experiences via the collection of images, sounds and text (Dawson, 2002, pp. 14, 23; Guest, Namey & Mitchell, 2013, p. 3). Collection methods for qualitative research include case studies, observations and interviews (Guest, Namey & Mitchell, 2013, p. 3).

Qualitative and quantitative methods should be viewed as complementary (Todd, 1979, p. 602), as both methods have strengths and weaknesses. Guest, Namey and Mitchell (2013, p. 16) state that the combination of approaches can strengthen the research design, as the weaknesses of one approach are offset by the strengths of the other. The practice of combining methods is commonly known as mixed method, multi-method or triangulation (Todd, 1979, p. 602).

The success of most research projects depends on the choice of appropriate research method. When looking at the research problem, the researcher should consider whether using the chosen method would be of any benefit to the research objectives. Although the mixed/multi-method approach can be beneficial to the research problem, it can also complicate the research design. If there is no benefit to the research problem in using mixed method research, a single method should be used (Guest, Namey & Mitchell, 2013, p. 16).

4.2.2 Case study as research method

As a research method, the case study can be used to increase information about, and knowledge of, social phenomena involving individuals, groups, companies or events. Case studies consist of data collection through multiple sources such as documents, artefacts, interviews, observations (Yin, 2009, p. 11) and reports, including financial reports, budget and operating statements and market and competition reports (Ghauri, 2004, p. 110).

Yin (2009, p. 18) defines a case study as consisting of two parts; (1) an in-depth investigation into a current phenomenon in context and where the boundaries between the phenomenon and the context are blurred, and (2) where the situation has more variables of interest than data points, resulting in (a) multiple sources of evidence where data has to be joined together (b) using existing theoretical suggestions as guidance for data collection and analysis.

From this, it is clear that a case study is not a methodological choice, but rather a choice of object/phenomenon to be studied. Case studies can be both quantitative and qualitative and are the preferred research method when:

- ‘How’ or ‘why’ questions are asked as the main research questions
- The researcher has limited control over events and relating behaviours cannot be manipulated
- The study focus is a current/contemporary phenomenon/event in a real life context (Yin, 2009, p. 2;11).

Gauri (2004, p. 114) states that the two different types of case study design include single and comparative/multiple case studies. These two types are further broken down into single-case holistic designs, single-case embedded designs, multiple-case holistic designs and multiple-case embedded designs (Yin, 2009, p. 46). The single-case design is represented by a (1) critical test

of existing theory, (2) rare or unique circumstance, (3) representative or typical case or (4) a case serving a revelatory or longitudinal purpose.

Taking the above into consideration, and based on the data needed to solve the research question and sub-questions, the single-case holistic design case study was used in this study. Using this approach, a quantitative method, in the form of analysis of survey data, was employed to achieve the study objectives.

4.3 Research design

In this study, the research design comprised three main phases, as shown in Figure 4-1: Phases of research design

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Figure 4-1: Phases of research design

In preparation for this study, the research objectives were clearly defined and background research was done to gain better understanding of corresponding research.

In the next phase of the research, a survey questionnaire was developed to collect information and research participants were identified. When the survey was conducted, all participants were provided with background information about the objective and importance of the study to solicit the required response rate.

In the final phase, the results of the survey were combined, analysed, interpreted and presented against existing research to achieve the research objectives.

The study preparation phase will be discussed in the following sub section.

4.3.1 Study preparation

When preparing for a research study, it is important to do background research to gain an understanding of the topic and expose any other beneficial research (Dawson, 2002, p. 40).

In studies about the implementation of competitive intelligence activities in companies, Pellissier and Nenzhelele (2013, p. 2) state that management support, culture and organisational structure have an overriding influence on the successful planning and implementation of competitive intelligence activities. Nasri (2011, p. 56) agrees with the statement that establishing a competitive intelligence culture in a company is a key element to the success of any competitive intelligence effort.

The successful implementation of competitive intelligence is further influenced by the multinational/global nature of companies. A study by Adidam, Gajre and Shubhra (2009, p. 678) state that companies doing international business must have cross-cultural awareness engrained in their competitive intelligence efforts to beat the competition in the highly globalised economies of today.

Studies about competitive intelligence and innovation show that innovation is crucial to the success and survival of companies. Auernhammer et al. (2003, p. 53) emphasise the impact of innovation on organisational and regional competitiveness and state that innovation is seen as the single most important building block of competitive advantage, a key ingredient for growth and pivotal for being able to compete globally.

Similarly, studies about the impact of competitive intelligence on corporate strategy emphasise the important impact of knowledge on the formulation of corporate strategy and company success (Snyman & Kruger, 2004, p. 5).

Based on the relevance of these studies, the aim of this study was to examine the inter-relationship between competitive intelligence, corporate culture, innovation, business strategy and geographic location.

Consequently, the main research problem of this study was to determine how competitive intelligence is implemented at a multinational consulting engineering company.

In order to resolve this research problem, the following objectives were addressed:

- Establishing what types of information are gathered, stored and distributed within the company as part of competitive intelligence activities and how important employees deem this to be
- Establishing the extent to which competitive intelligence is influenced by corporate culture

- Establishing what the influence of different geographic locations and cultures are on competitive intelligence activities
- Establishing what the importance of corporate culture is with regard to sharing knowledge and creating a collaborative environment to enable innovation
- Establishing the extent to which business strategy is influenced by competitive intelligence.

The study execution phase is discussed in the following sub section.

4.3.2 Study execution

During the second phase of this study – the execution phase – the population and research participants were identified and the survey questionnaire was developed and administered. This is a crucial phase of the study and will be discussed in the following sections.

4.3.2.1 Population and research participants

Prior to conducting this study, authorisation was requested from the company to collect data from employees. Approval was granted on condition that participation in the survey would be voluntary, that participants and the company would remain anonymous and that information gathered would not be used for any other purpose than the research study. The participants were selected from standard company email lists where staff are grouped according to job level and/or location. Anonymity was guaranteed to all participants and participation was voluntary. The participants were not requested to state their names and assurance was given that all information would be handled as confidential.

The population of a research study is defined as a group about whom generalisations can be made. When taking the number of individuals in the population for a study into account, it is improbable that the entire population will be investigated, and the study may realistically be limited to a reduced number of participants to enable generalisation about the population (Babbie, 2005, p. 112). As the focus of this study is the importance of competitive intelligence in the company, the sample of 122 participants consisted of staff who gather and/or use information and intelligence for decision-making. This includes the executive and senior management functions of the company i.e. the Chief Strategy Officer, Managing Director Clients, Chief Digital Officer, Chief Financial Officer, Chief Innovation Officer, Global Director Excellence and Expertise, Market and Regional Managing Directors, Global Director Design to Innovate, members of L40, Market and Regional Directors, Country Managers, Office Managers and Unit Managers; as well as Marketing and Communication Business Partners and Knowledge and Information Centre staff.

The participants' responses will determine how competitive intelligence is applied and to what extent it is linked to innovation and strategy within the company. As the participants are located

in multiple countries, responses will furthermore indicate if there is a difference in the application of competitive intelligence across borders.

The questionnaire consisted of eight pages and 51 questions. Seventy-six (76) of the 122 participants responded to the survey, resulting in a 62% response rate. The breakdown of responses is detailed in Table 4-1 below.

Table 4-1: Final responses to questionnaire

Description	Number of participants	Percentage of participation
Responses received	76	62%
Completed	54	71%
Partial	22	29%
Declined	1	1%
No response	46	38%
Total	122	100%

4.3.2.2 Survey execution

Surveys use questionnaires or structured interviews for data collection and are intended to generalise the results from a sample of research participants to a population (Babbie, 2005, p. 112; Creswell, 2003, p. 14). In the past, questionnaires have been found to be very effective in the business environment, which is why this method was chosen for this study.

Various aspects had to be taken into account during the development of the questionnaire, including the language and terminology used, length and types of questions asked. The questionnaire also had to be piloted before it could be sent to participants.

4.3.2.2.1 Language and terminology

The questionnaire was designed in English, as this is the business language used in the company.

When constructing the questions, care had to be taken with the wording and structure so the questions would be understandable to all participants. This was particularly important, as English is the second and even third language of a number of participants and misunderstanding of the questions could have had a significant impact on the survey results.

Based on the guidelines from Dawson (2002, p. 89), particular care was taken when constructing the questions to ensure:

- Questions were kept short and simple. This included avoiding 'double-barrelled' questions (where there are two questions in one) or negative questions.
- No questions that might provoke bias against the participant, such as questions about income, were included
- Where direct questions would be too sensitive, indirect questions were asked
- It was ensured that all possible answers were covered where closed-ended questions were asked
- Leading questions were avoided.

4.3.2.2.2 Length

When constructing a questionnaire it is important to keep it as short as possible, as its length can have a direct impact on the completeness and rate of responses (Dawson, 2002, p. 93). Because of the nature of the research in this study, the questionnaire was long. The final questionnaire consisted of eight electronic pages (excluding consent to take part in the survey) and 51 questions.

In the covering e-mail sent to all participants it was indicated that the questionnaire would take 15-20 minutes to complete. However, some participants still commented that the questionnaire was too long and time-consuming. This sentiment is evident in the 29% of partially completed surveys.

4.3.2.2.3 Types of questions

Questionnaires can be constructed to be open-ended, closed-ended or a combination thereof. When open-ended questions are used, participants answer questions using their own words, while in closed-ended questions participants have to answer using prewritten responses provided (Dawson, 2002, p. 87). Both types of questions have advantages and disadvantages, as indicated in Table 4-2.

Table 4-2: Advantages and disadvantages of open and closed questions (Dawson, 2002, p. 88)

Open-ended questions	Closed-ended questions
Slower to administer	Quicker to administer
More difficult to record responses	Easier and quicker to record responses
More difficult to code, especially if multiple answers are given	Easier to code
Enable respondent to raise new issues	New issues cannot be raised by participants
Participants tend to feel 'heard' i.e. they were able to speak their mind	Participants are forced to answer in a way that might not match their actual opinion, and may become frustrated
In self-administered questionnaires, there is a risk that participants might not be willing to write long answers and skip the question, making analysis more difficult	It is easy for participants to tick boxes/select the answer via a dropdown, increasing the likelihood of responses to all questions
Open-ended questions can be used to get input on all possible responses before designing a closed-ended questionnaire	Participants can be given the opportunity for a longer response by adding a section for further comments

The questionnaire used in the survey comprises a combination of open-ended and closed-ended questions. In some of the closed-ended questions, participants also had the option to add comments/additional information through the 'Other' option.

The questions are grouped in different sections, i.e. background information on the participant, current practice regarding gathering, analysis and distribution of information, as well as the benefits and challenges related to this. The remaining sections of the survey are about the participants' assessment of the current competitive intelligence culture within the company, the relationship between competitive intelligence and business strategy and innovation and competitive intelligence practice across borders.

The results of the survey are detailed in Chapter five and appear in the same order as the questions.

4.3.2.2.4 Piloting the questionnaire

Once the questionnaire had been finalised, it was piloted to test its validity and to see if it obtained the required results (Dawson, 2002, p. 95). The questionnaire was sent to various people not involved in its construction for input and comments on the relevance of the questions, possible ambiguities, structure and wording. The questionnaire was altered to incorporate feedback received and, as a last step, reviewed by a language specialist for language consistency and ease of reading.

4.3.2.3 Administering the survey

Questionnaires can be self-administered, where the respondent completes the questionnaire away from the researcher, or interviewer-administered (Dawson, 2002, p. 87). This study made use of self-administered questionnaires as all the participants are employees of the company under study.

Self-administered questionnaires can take the form of postal surveys or internet-based methods such as e-mail or web-based surveys (Phellas, Bloch & Seale, 2011, pp. 186-190). Because of the continuous expansion of internet-related infrastructure and the growth in the number of internet users, web-based surveys are gaining popularity. In an environment such as the one for this study, where the participants are all employees of a company and have access to reliable and fast internet, a web-based questionnaire was the obvious choice and the questionnaire was consequently created using the web-based survey tool, Survey Monkey (www.surveymonkey.com).

Benefits to web-based questionnaires include (Phellas, Bloch & Seale, 2011, p. 190):

- Large sample sizes – the method is extremely fast and can gather thousands of responses within hours
- Fast response times – many people who will respond do so on the day of receiving the invitation and most will do so within the first few days, ensuring a relatively fast response time
- A significant number of people will give more honest answers to questions
- People give longer answers to open-ended questions compared to other kinds of self-administered surveys
- The questionnaire can be set with skip instructions, which is more accurate than relying on an interviewer asking questions or a respondent having to spend time reading irrelevant questions on paper/e-mail questionnaires
- No/little cost is involved in setting up the survey
- One can use pictures, video, sound and formatting options such as colours and fonts, which is not possible in other types of questionnaires, to enhance the participants' experience and ensure better data.

The challenges of web-based questionnaires include (Phellas, Bloch & Seale, 2011, p. 190):

- Limited participants, as internet access is not universal
- The risk of incomplete data or no data at all, as participants can easily quit halfway through the questionnaire

- Multiple responses from a single respondent, unless the software is set up to limit responses to one per person and is password-protected.

In administering the questionnaires for this study, a covering e-mail was sent to all participants, explaining the goal and importance of the study to ensure that they would take it seriously and participate as required. The e-mail emphasised the anonymity of responses and stated that, although a summary of the results would be published, the company name would remain confidential. The email furthermore contained a link to the questionnaire created in Survey Monkey.

A period of three weeks was allowed for completion of the questionnaire. During this time, two reminders were sent to participants with unsubmitted and partially completed questionnaires. During the last few days before the closure of the survey, a number of participants were contacted individually via telephone and/or Skype for Business to solicit responses.

One of the benefits of web-based surveys noted by Phellas, Bloch and Seale (2011, p. 190), i.e. faster response times, was evident in the results. Figure 4-2 shows the number of responses on the day of receiving the invitation and thereafter. The peaks in response rates over the survey period coincided with the days the initial and reminder e-mail requests were sent and reduced significantly within the few days thereafter. During the last few days of the survey period, a more consistent completion rate is noticeable, consistent with the individual lobbying for completion.

Similarly, the risk of incomplete data or no data at all (Phellas, Bloch & Seale, 2011, p. 190) was evident in the responses. Table 4-1 shows that 29% of participants submitted partially completed questionnaires.

The risk of multiple responses from a single participant was mitigated through limiting responses to one per person. Participants were also restricted from sending the link to the survey to others, as each participant received a unique link.

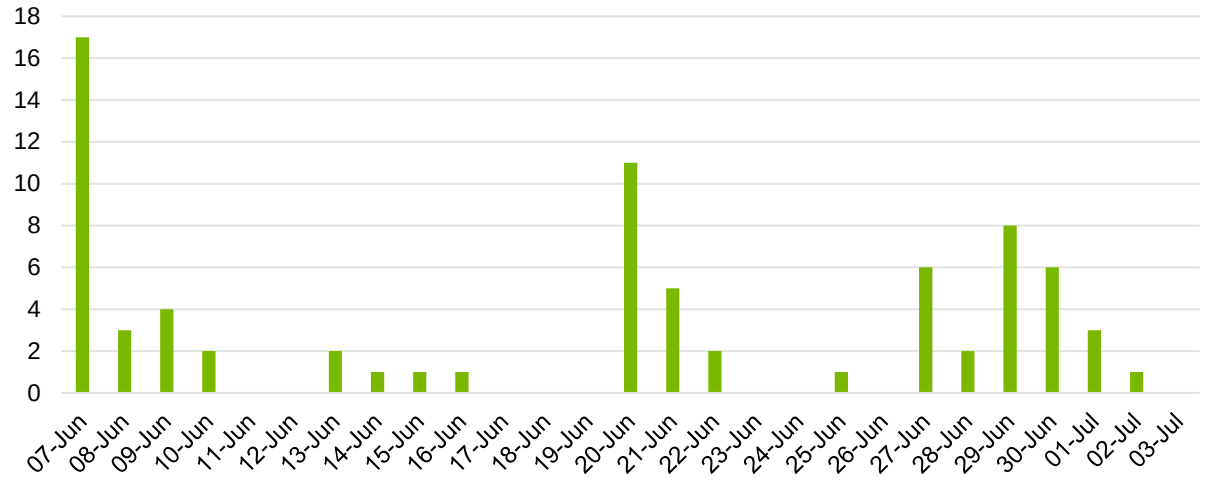

Figure 4-2: Response time after administering questionnaire

4.3.3 Analysis and interpretation

Once the survey had closed and the completed questionnaires had been received, the data was combined within Survey Monkey and extracted into Microsoft Excel spreadsheets for further analysis. The detailed analysis and interpretation of the results are discussed in Chapter five.

The study included some limitations, which are discussed in the following section.

4.4 Limitations

The following limitations have been identified for the study:

- The study is restricted to a single multinational consulting engineering company
- The study does not include other multinational companies in the same industry or companies in the same industry and located in a single country
- The study does not include companies in other industries
- The outcomes of the study will not serve as a recommendation for competitive intelligence implementation in multinational consulting engineering companies, but rather for the improvement of the competitive intelligence function and implementation within the company under study.

4.5 Summary

In this chapter, the methodology used for the empirical study to test how competitive intelligence is applied in the company was presented. Empirical research is a way of gathering information directly or indirectly. Analysis of the information can happen through quantitative, qualitative or mixed research methods. Quantitative research generates statistics while qualitative research explores attitudes, behaviour and experiences (Dawson, 2002, pp. 14, 23) through case studies, observations and interviews (Guest, Namey & Mitchell, 2013, p. 3). Both methods have strengths and weaknesses and should be viewed as complementary, which is why mixed research methods are often used (Todd, 1979, p. 602). It was determined that to achieve the study objectives, a mixed method approach would be followed in the form of a case study combined with a survey.

Once the empirical method has been established, the research design had to be developed. This study was designed around three main phases, i.e. study preparation, study execution and data analysis and interpretation. The study preparation phase included refining of research objectives and doing background research. This was followed by the execution phase, during which the population and research participants were identified and the survey questionnaire developed and administered. The aspects that had to be taken into consideration during the development of a research questionnaire were also discussed. These aspects included the language and

terminology used, length of the questionnaire, types of questions asked and the importance of piloting the questionnaire. Lastly, research limitations were identified.

The final phase of the research design – data analysis and interpretation – will be discussed in detail in the next chapter. During this phase, the results of the survey were combined, analysed using a combination of Likert scales, interpreted and presented against existing literature.

5 Chapter five: Analysis and interpretation of the results

"The goal is to turn data into information, and information into insight." – Carly Fiorina

5.1 Introduction

In the previous chapter, the research methodology was described and the first two of the three phases of the research design followed to achieve the research objectives were detailed.

The final phase of the research design will be discussed in detail in this chapter. During this phase, the results of the survey were combined, analysed and interpreted to achieve the research objectives defined. This includes solving the final sub-problem of the types of information gathered, stored and distributed within the company as part of competitive intelligence activities and its importance to employees.

However, in order to interpret and contextualise the results properly, it is important to provide background on the consulting engineering industry. Therefore, the first section of this chapter is dedicated to background on the industry, followed by detailed analysis.

5.1.1 Consulting engineering industry

In the consulting engineering industry (as in all industries), the need for companies to stay ahead of the competition is important for sustained growth. Since 2008, with the economic downturn in the traditional (European and American) markets, the industry has experienced unprecedented disruptions. One of these was the surge in the number of mergers with and acquisitions of companies based in emerging markets by large international companies. The Engineering News-Record (ENR) (Engineering News-Record, 2014, p. 2) reports that although 2013 was a relatively quiet year for mergers and acquisitions, a number of very large mergers occurred in 2014. This was driven by the need of international companies to get a foothold in emerging markets and diversify their service offerings, as changes in clients' procurement practices required consultants to have experience spanning the globe (Engineering News-Record, 2014, p. 4). Other disruptions included a wave of protests, riots and civil wars in the Arab League and surrounding countries in 2010, the so-called Arab Spring, and the subsequent downturn in the economies of that region and the global collapse in commodity prices, resulting in a significant decline in the resources industry in specifically Australia and Africa. The rapid development of digital technology is furthermore creating as many opportunities as risks, and CEOs across the world are painting a

picture of an increasingly fluid and disrupted business environment where the ability to harness these changes in technology effectively is becoming a key differentiating capability, presenting opportunities for those companies that can do it – and threats for those that cannot (PwC, 2015, p. 22).

In the engineering industry in particular, professional design services saw signs of a softening market in 2015 and early 2016, as energy prices plummeted and the weakened demand for petroleum and metals had an impact on public and private spending in resource-rich countries (Engineering News-Record, 2016, p. 60), such as South Africa, Australia and the Middle East. The slowing market is having an influence on social issues though, and a growing demand for public infrastructure and an upturn in urbanisation are leading to an increase in interest in infrastructure markets as governments are borrowing to spend on public infrastructure in low interest rate environments. Asia in particular is seeing a surge in infrastructure demand, as this region is growing at the fastest pace in the world and remains a major growth area for international design firms. There is, however, a significant difference in the infrastructure needs of developing and developed markets, as developing markets are demanding new infrastructure while developed markets are seeing a need for the rehabilitation of existing infrastructure and privatisation of public infrastructure (Engineering News-Record, 2016, p. 61).

This increasing demand for infrastructure and projects that are getting more and more complex is resulting in competition being at an all-time high, driving companies to reduce costs and work from low-cost bases in countries in emerging economies and developing markets (Engineering News-Record, 2014, p. 4). To keep/increase their market share in these challenging times, multinational companies have to stay competitive by using available information, transforming it into actionable intelligence and foresight (Strauss & Du Toit, 2010, p. 305) and incorporating it into strategic business decisions (Snyman & Kruger, 2004, p. 5).

It is against this background that the results of each of the survey questions will be discussed, analysed and interpreted.

5.2 Analysis of results

The questionnaire was distributed to 122 participants and comprised two sections i.e. the survey consent and the background of participants and survey questions. The results of the questions in each of the sections were analysed using Likert scales of 4, 5 and 6 to measure the intensity of respondents' attitudes with respect to each other (Pickard, 2013, p. 213). The combination of scales that were used were based on the information needed per question.

The results from the survey are analysed in the following sub sections.

5.2.1 Section A: Survey consent

5.2.1.1 Question 1

Of the 76 respondents, 75 agreed to continue with the survey, while one respondent chose not to participate.

5.2.2 Section B: Background information

As a logical introduction to the questionnaire, it was necessary to gain insight into the biographical information of the respondents, as this would provide a fair representation of the leadership of the company.

5.2.2.1 Question 2: What is your highest qualification?

Table 5-1: Qualifications of respondents

Response option	Response count	Response percentage
High school	1	1.40%
Bachelor's degree	18	24.30%
Honours degree or other 4-year degree	24	32.40%
Master's degree	24	32.40%
Doctoral degree	6	8.10%
Confidential	1	1.40%
Answered question	74	
Skipped question	2	

Table 5-1 shows that at 72.90%, the majority of respondents have post-graduate degrees. This group consists of 32.40% of respondents who have an Honours or other four-year degree, 32.40% with a Master's degree and 8.10% who hold a doctorate. This is followed by 24.30% of respondents who hold a Bachelor's degree and 1.40% with a high school qualification. Another 1.40% of the respondents chose not to disclose their level of education.

The data in Table 5-1 indicates that the company seems to attach importance to qualifications, which the majority of respondents hold. Attracting and retaining employees appear to be a strategy in the company.

5.2.2.2 Question 3: How long have you been employed at the company?

Table 5-2: Years with company

Response option	Response count	Response percentage
Less than a year	6	8.10%
1-2 years	3	4.10%
3-4 years	3	4.10%
5-6 years	7	9.50%
7+ years	55	74.30%
Answered question	74	
Skipped question	2	

The data in Table 5-2 shows that the majority of respondents, 74.30%, have been working at the company for seven or more years. This is followed by 9.50% who have been at the company for five to six years, 8.10% for less than a year and 4.10% for both three to four and one to two years.

Even though 83.80% of the respondents have been at the company for more than five years, it is interesting to note the relatively high number of staff at this level who have been with the company for less than a year, confirming recent management changes and resulting appointments. The high number of respondents who have been with the company for more than five years confirms, however, that respondents know the company well and that the company mostly manages to retain senior staff.

5.2.2.3 Question 4: Which one of the following best describes your position within the company?

Table 5-3: Position within company

Response option	Response count	Response percentage
Global board	1	1.35%
Executive management (Exco)	5	6.76%
Member of L40	18	24.32%
Senior management i.e. Unit manager/Global business role	39	52.70%
Technical director/Leader	3	4.05%
Associate/Line manager	2	2.70%
Other (please specify)	6	8.11%
Answered question	74	
Skipped question	2	

Of the respondents, 52.70% fulfil a senior management role within the company, followed by 24.32% that are part of L40, a grouping consisting of the top leaders within the company (Table 5-3). This is followed by 8.11% under Other, all of whom are part of Business Support Services, i.e. Knowledge and Information and Marketing and Communications (M&C); 6.76% forming part of the executive management function of the company, 4.05% who are technical directors/leaders; 2.70% with the role of associate/line manager and 1.35% who are part of the Global Board.

In commenting on the above, it is noted that the top two categories, i.e. Global Board and Executive Management (Exco) need accurate and complete information to assist them in formulating and guiding the company strategy, while the L40 and senior management need the same to guide and implement the strategy within their respective areas. The next two levels, i.e. technical director/leader and associate/line manager, need information to implement the strategy. All respondents are further expected to identify, lead and develop future leaders.

5.2.2.4 Question 5: What part of the company do you work in?

Table 5-4: Function within the company

Response option	Response count	Response percentage
Delivery	47	64.40%
M&C/Proposals/Clients/BSS	26	35.60%
Answered question	73	
Skipped question	3	

Table 5-4 shows that the majority of respondents, 64.40%, work in Delivery, i.e. the technical and project delivery units of the company, and 35.60% are involved in other areas, such as M&C, proposals, client teams and business support services (BSS).

As the company provides professional consulting services, the majority of the staff work in project delivery. This is confirmed by the data.

5.2.2.5 Question 6: In which market(s) do you mainly work? (Mark all applicable)

Table 5-5: Market involvement

Response option	Response count	Response percentage
Energy and resources	28	40.00%
Advisory	28	40.00%
Infrastructure	37	52.90%

Response option	Response count	Response percentage
Built environment	41	58.60%
Answered question	70	
Skipped question	6	

Even though 35.60% of the respondents form part of areas such as M&C, proposals, client teams and BSS (Table 5-4), these respondents are mostly aligned to, and involved in, specific markets. It is therefore relevant to align these respondents with the markets in which they mainly work as depicted in Table 5-5.

At 58.60%, the majority of respondents are involved in the built environment market, followed by infrastructure at 52.90% and energy and resources and advisory, both at 40.00%.

5.2.2.6 Question 7: Where are you based?

Table 5-6: Location of respondents

Response option	Response count	Response percentage
Africa		
Namibia	1	1.33%
Nigeria	1	1.33%
South Africa	31	41.33%
Tanzania	1	1.33%
Asia		
Hong Kong	1	1.33%
Philippines	1	1.33%
Singapore	3	4.00%
Thailand	3	4.00%
Vietnam	1	1.33%
Australia/New Zealand		
Australia	27	36.00%
New Zealand	2	2.67%
Middle East		
Qatar	1	1.33%
United Arab Emirates	2	2.67%
Answered question	75	
Skipped question	1	

Data in Table 5-6 shows that the majority of respondents, 41.33%, are located in South Africa followed by 36% in Australia. This is followed by 4.00% in Singapore and Thailand and 2.67% in New Zealand and the United Arab Emirates. Namibia, Nigeria, Tanzania, Hong Kong, Philippines, Vietnam and Qatar all have a response rate of 1.33%.

The response rate per region is shown in Figure 5-1. This shows that at 45.33%, the majority of responses came from Africa, followed by Australia/New Zealand at 38.67%. Asia and the Middle East have significantly lower response rates at 12.00% and 4.00% respectively.

The Australia/New Zealand region is the largest part of the company and with 10% more invitees from Australia/New Zealand than from Africa, it is disappointing that these figures are not reflected in the results. The result can, however, possibly be explained by the fact that the researcher is located in Africa and therefore has more personal contact with invitees from this region, resulting in a higher response rate (Figure 5-1).

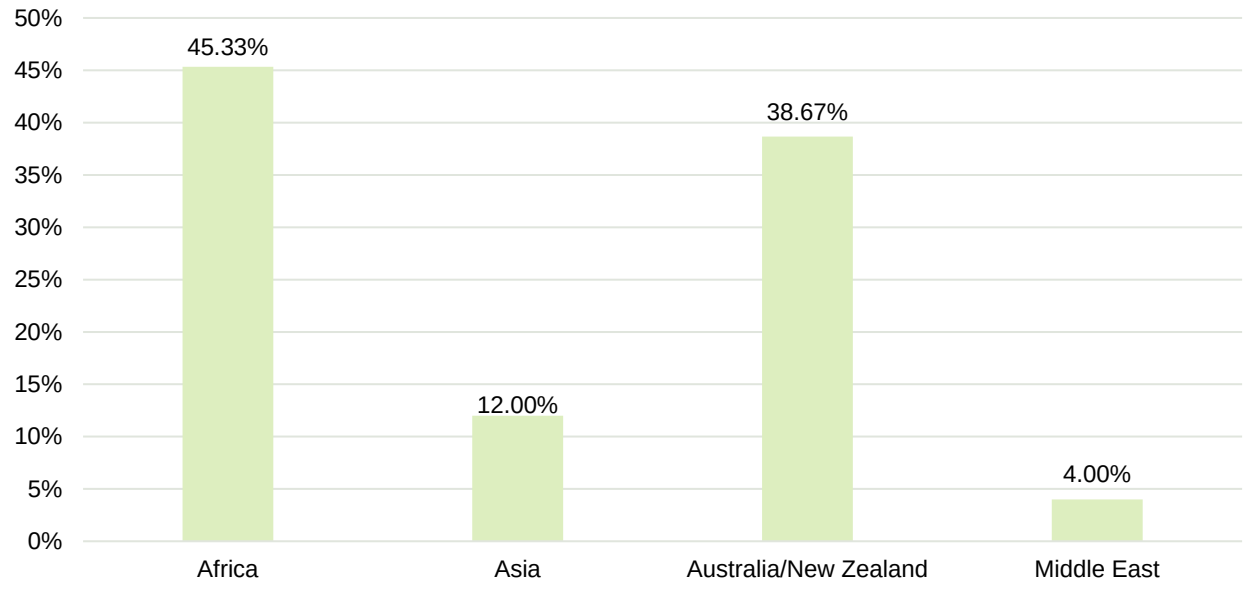

Figure 5-1: Response rate per region

The data proves the multinational nature of the company.

5.2.3 Section B: Competitive intelligence in the company

The section below investigates competitive intelligence in the company. Initially, information gathering, analysis and distribution and respondents' understanding of the benefits and challenges of knowledge sharing are investigated. Thereafter, the competitive intelligence culture, the importance of competitive intelligence for innovation and strategy and challenges to successful cross-cultural implementation are discussed.

5.2.3.1 Gathering of information

In this sub section, information gathering in the company is investigated. This includes the types and frequency of information gathered, storage and importance of information.

5.2.3.1.1 Question 8: Is there a formal information function in the company?

Table 5-7: Awareness of information function

Response option	Response count	Response percentage
Yes	37	56.90%
No	13	20.00%
Don't know	15	23.10%
Answered question	65	
Skipped question	11	

At 56.90%, just over half of the respondents know of the formal information function, in the form of the Knowledge and Information Centre, within the company (Table 5-7). Of the remaining 43.10%, 23.10% do not know of such a function and 20.00% state that there is no such function.

This is an indication that the Knowledge and Information Centre should do more marketing within the company to raise awareness and increase use of its service offering.

5.2.3.1.2 Question 9: Is information collected and distributed informally across the company?

Table 5-8: Informal information collection and distribution

Response option	Response count	Response percentage
Yes	50	76.90%
No	12	18.50%
Don't know	3	4.60%
Answered question	65	
Skipped question	11	

The results in Table 5-8 show that 76.90% of respondents are of the opinion that information is being distributed across the company informally, with 18.50% not being aware of this and 4.6% who do not know.

Compared to the results shown in Table 5-7, significantly more staff are aware of information being distributed informally rather than through an information function.

5.2.3.1.3 Question 10: What external market factors do you monitor to gain understanding of the competitive environment outside the company?

Table 5-9: Respondents monitoring the external environment

Response option	Weekly/ Monthly	A few times a year	Yearly	Never	Response count
Economy	52	12	0	0	64
Industry	51	12	1	0	64
Politics	49	14	0	1	64
Technology	23	36	4	1	64
Social	22	33	4	4	63
Legal	4	37	12	9	62
Innovation	34	27	3	0	64
Leadership development	23	30	6	5	64
Operational risk	25	32	2	4	63
Skills availability	28	28	2	5	63
				Answered question	64
				Skipped question	12

Results in Table 5-9 show that monitoring of the economic environment seems to be most important to this company, with the highest percentage of respondents, 81.25%, monitoring this environment on a weekly/monthly basis. This is followed by 18.27% of respondents who monitor the environment a few times a year. None of the respondents monitors this environment yearly.

As the bulk of the company's revenue is generated through clients' investment in infrastructure, it is understandable that changes in local, regional and/or international economies or markets (such as the plummeting oil price) can have a significant effect on expenditure by clients. The multinational nature of the company also makes the economic environment important, as currency fluctuations (such as the devaluation of the South African currency), exchange rates and other economic indicators can have a significant impact on profit and loss.

The data in Table 5-9 shows that respondents regularly monitor the engineering industry, with 79.69% of respondents monitoring the industry weekly/monthly, 18.75% a few times a year and 1.56% yearly. As respondents are mostly from the senior and executive management of the company, this is plausible, as marketplace competitiveness is enhanced by understanding the overall competitive situation of the company in its industry (Gray, 2005, p. 32).

Innovation is monitored weekly/monthly by 53.13% of respondents, followed by 42.19% who monitor this a few times a year and 4.69% who monitor it yearly. With innovation being a strategic focus of the company, it is surprising that this area is not monitored by more respondents more regularly. However, the fact that the focus on innovation and co-creation is relatively new in the company (last 12 months) might be a plausible explanation for this.

When it comes to leadership development, 46.88% of respondents monitor developments a few times a year, followed by 35.94% who monitor it weekly/monthly, 9.38% who monitor this environment yearly and 7.81% never. Good leadership is imperative for the growth and development of any company. The relatively high number of senior and executive management members who never monitor leadership development is concerning, as without good leadership and guidance, employees are less likely to be engaged and motivated. This also goes against the strategy of staff retention, as concluded from data in Table 5-2.

Developments in the legal environment are monitored by 57.81% of respondents a few times a year, followed by 18.75% who monitor this yearly, 14.06% who never monitor this environment and 6.25% who monitor it weekly/monthly. Legislation has a direct impact on the functioning of any organisation and it is encouraging to see that the company monitors the legal environment a few times a year. Table 5-41 and Figure 5-25 show that the company rates legislation as one of the least important influencers in terms of gathering and distribution of intelligence across regions. From a competitive intelligence perspective, the differences in the implementation of broad legal principles across nations can complicate competitive intelligence efforts (Glitman, 2013, p. 1) and the multinational nature of the company might require more frequent monitoring of this environment. The risk might, however, be decreased by the fact that legislation does not change often, resulting in less frequent monitoring being needed.

Operational risk is monitored a few times a year by the majority of respondents at 50%, followed by 39.06% who monitor this environment weekly/monthly, 3.13% who monitor it yearly and 6.25% who never monitor this environment.

The political environment is the third most regularly monitored, as 76.55% of respondents monitor this weekly/monthly and 21.88% a few times a year. This is in contrast with 1.56% of respondents who never monitor this environment. Political stability is an important concern in any country and based on the level of regular monitoring, an important consideration for the company. It can be assumed that the respondents who never monitor this area are those who are not directly involved in strategy formulation and guidance.

The availability of skills in the market is monitored weekly/monthly and a few times a year by 47.75% of respondents, while 7.81% never monitor this and 3.13% do it yearly. By nature, the skills available in the market are monitored when recruiting, but regular monitoring can give a

good indication of movement in the market and it is encouraging that this environment is monitored at least a few times a year.

The social environment is monitored by 51.56% of respondents a few times a year, followed by 34.38 who monitor it weekly/monthly, 6.25% yearly and 6.25% never. It is positive to note that the social environment is monitored a few times a year by more than half the respondents. Identifying and analysing societal trends, such as rapid urbanisation and governmental investment in infrastructure, societal disobedience in terms of willingness to pay for services or amenities that should form part of a contemporary student housing development, for example, are important factors to consider in the successful planning and implementation of major infrastructure projects.

The technological front is monitored by 56.25% of respondents a few times a year, by 34.38% on a weekly/monthly basis, 6.25% yearly and 1.56% never. Technology is an integral part of people's daily lives and has a significant impact on everything they do. It is good to note that this environment is monitored a few times a year by the majority of respondents. However, as it is such a rapidly changing environment, it should probably be monitored more frequently in view of the impact and possible disruption it might have on the company and its clients.

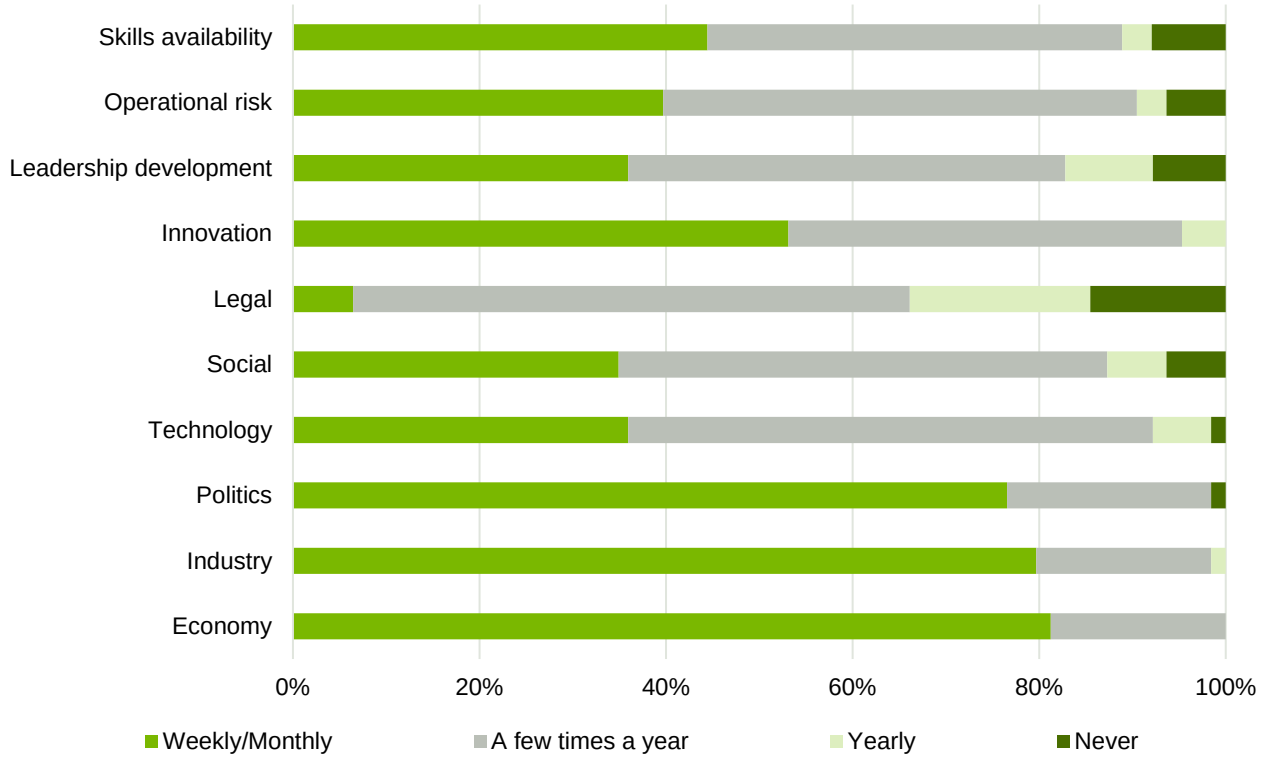

Figure 5-2: Frequency of monitoring the external environment

Figure 5-2 shows that, when considering the data in the weekly/monthly and a few times a year categories, the economic environment, politics and the industry are monitored most frequently by

the company. The social environment, leadership development and legislation are monitored least frequently.

5.2.3.1.4 Question 11: How often is information on the topics below collected and/or distributed (formally/informally) within the company?

Table 5-10: Information collection and/or distribution

Response option	Weekly/ Monthly	A few times a year	Yearly	Never	Don't know	Response count
Clients	33	19	1	1	6	60
Competitors	15	22	6	7	10	60
External market factors	20	29	2	2	7	60
Partners/related industries	18	26	3	4	8	59
					Answered question	60
					Skipped question	16

According to the data shown in Table 5-10 and Figure 5-3, information on clients is collected and/or distributed most frequently in the company, with 55.00% of respondents stating that this is done weekly/monthly, 31.67% a few times a year, 3.33% yearly and 3.33% never, while 11.67% of respondents do not know how often this is done. The fact that client information takes the lead is not surprising, as the company has had a client-centric strategy for a number of years. In the past, this strategy has included various training programmes linked to client interaction, the Key Client Programme and initiatives such as the annual Client Week. Currently, the strategy is embedded in Client Account Management.

Information on competitors is collected and/or distributed less frequently than in the other categories. The largest group of 36.67% of respondents is of the opinion that this happens a few times a year, while 25.00% believe that it happens weekly/monthly, 11.67% never and 10.00% yearly. The rest of the respondents, 16.67%, do not know if information on competitors is collected and/or distributed. Because of the highly competitive nature of the industry (Table 5-33) and the importance of information on the service offering, commercial aspects and the strategy of competitors of the company (Table 5-12 and Figure 5-7), it is surprising that this information is not collected and/or distributed more frequently.

The company collects and/or distributes information on external market factors regularly, even if less frequently than information on clients. Almost half of the respondents, 48.33%, declare that information on the external market is collected and/or distributed a few times a year, 33.33% believe it happens weekly/monthly, 3.33% yearly and 3.33% never. The other 11.67% do not

know how frequently this information is collected and/or distributed. This data is supported by that in Table 5-9 and Figure 5-2, where the external market factors, i.e. economy, industry, politics, technology, social environment, legislation, innovation, leadership development, operational risk and skills availability, are monitored to varying degrees.

The company collects and/or distributes information on partners/related industries a few times a year, according to 44.07% of respondents, weekly/monthly according to 30.51%, never according to 6.78% and yearly according to 5.08%. The remaining 13.56% of respondents do not know if information on partners/related industries is collected and/or distributed. As a daily company-wide email is distributed with general news on competitors, the large number of respondents unaware of this is concerning, even when taking into account that the information is largely focussed on the Australia/New Zealand region. This lack of awareness might be attributed to the fact that in the current knowledge economy, the problem is not lack of information, but indeed that of information overload, and creating useable and useful intelligence – instead of distributing general information – is the challenge (Gray, 2005, p. 1).

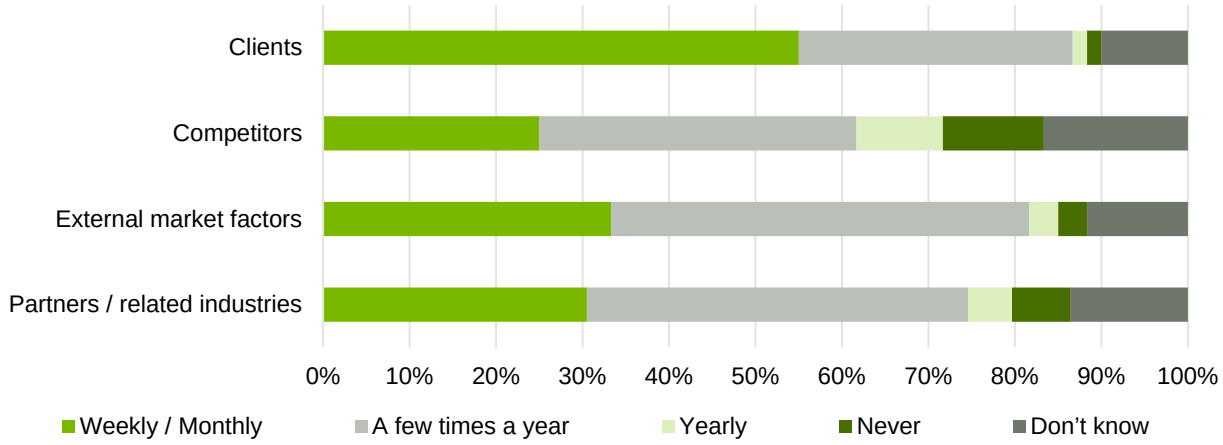

Figure 5-3: Frequency of collection and/or distribution of information

For the company to stay competitive and keep its market share, it is imperative that available information on clients, competitors, external market factors and partners/related industries is collected, distributed and transformed into actionable intelligence and foresight (Strauss & Du Toit, 2010, p. 305). Information is collected and/or distributed in varying degrees by the company, with clients viewed as most important. The data in Figure 5-3 shows that, when taking the weekly/monthly and a few times a year categories into consideration, information on competitors is collected and distributed least of all, with most respondents not knowing if this is happening in the company.

5.2.3.1.5 Question 12: If information on the above is not collected and/or distributed, please give reasons

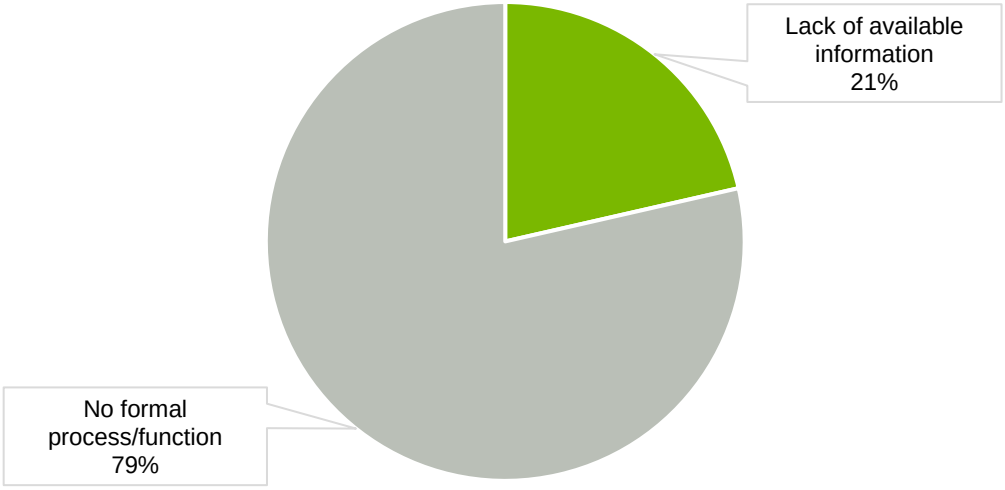

Figure 5-4: Reasons for information not being collected and/or distributed

On studying the open-ended answers of respondents to this question, it became clear that most of the respondents, 78.57%, cited the lack of a formal intelligence function/process as the reason for information on clients, competitors, external market factors and partners/related industries not being collected and/or distributed by the company (Figure 5-4). The remainder of the respondents, 21.43%, were of the opinion that the information was not collected and/or distributed as it was not readily available. In the current knowledge economy, the problem is not lack of information, but information overload (Gray, 2005, p. 1), making this response unlikely to be the real reason. The more likely reason might be that the respondents do not know where to find information that can be transformed into usable intelligence, pointing towards lack of a formal intelligence function/process cited by other respondents.

5.2.3.1.6 Question 13: What information do you collect on competitors, clients, partners/related industries and external market factors?

On studying the answers of respondents to this open-ended question, it became clear that information on the project pipeline of clients or project wins of competitors, expertise required, key appointments and/or movements of key staff, organisational changes and general/industry news is collected most often, as 18% of respondents listed this as the information they collect for each of the categories.

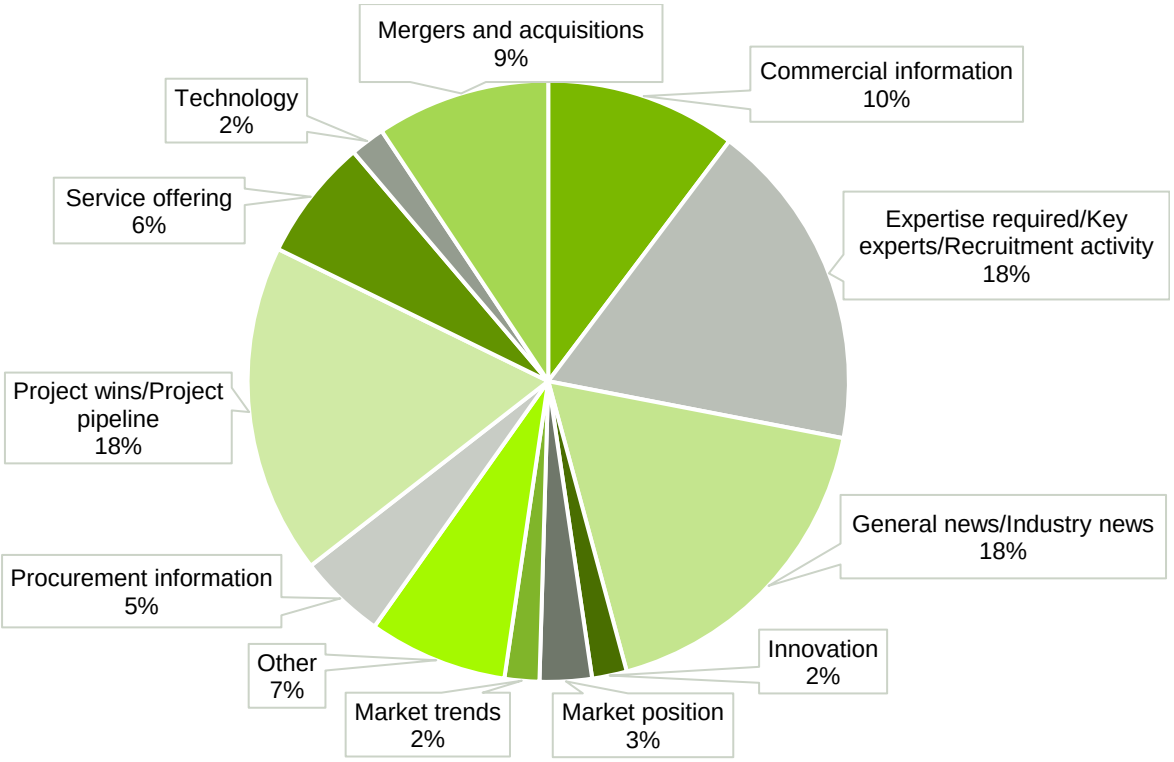

Figure 5-5: Information collected on competitors, clients, partners/related industries and external market factors

As shown in Figure 5-5, this was followed by 10% of respondents who collected commercial information in the form of competitor rates, prices of tenders submitted by competitors and available budgets of clients; 9% who collected information on mergers and acquisitions and 7% who collected other information such as partnerships between competitors and partner/related industry companies, client experience and legislation. Six percent (6%) of respondents collected information on the service offering of competitors and 5% procurement-related information, including procurement rules, strategies and process. This was followed by 3% of respondents who gathered information on market positions and 2% who collected information on market trends, innovation and technology.

5.2.3.1.7 Question 14: How important are the sources below for gathering information on clients, competitors, partners/related industries and/or external market factors?

Table 5-11: Sources used for information gathering

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Employees	1	3	13	26	19	62
Network of peers	0	4	8	31	19	62
Partners/subcontractors	1	5	15	26	15	62
Market analysts	1	14	20	20	7	62
Industry experts	0	6	24	22	9	61
Journalists	7	27	18	10	0	62
Corporate websites/material/ reports	2	13	34	8	5	62
Trade shows/conferences	8	23	19	9	2	61
Trade literature (journals)	5	21	22	10	3	61
Industry analyst/ research reports	2	14	20	18	7	61
Specific government literature	5	16	24	13	4	62
Printed media	5	13	30	9	4	61
Electronic media	3	8	26	14	11	62
Social media	5	19	21	11	6	62
					Answered question	62
					Skipped question	14

The data in Table 5-11 shows that employees are seen as a very important source of information by 41.94% of the company. This is followed by 30.65% who see employees as an essential source, 20.97% as important, 4.84% as somewhat important and 1.61% who do not view employees as a source of information as important.

As a source of information, a network of peers is deemed most important by the company, with 50.00% of respondents seeing it as very important, 30.65% as essential, 12.90% as important and 6.45% as somewhat important. None of the respondents views this source as not important.

Partners/subcontractors are viewed as very important by 41.94%, essential by 24.19%, important by 24.19%, somewhat important by 8.06% and not important by 1.61%.

Market analysists are seen as important and very important by 32.26%, somewhat important by 22.58%, essential by 11.29% and not important by 1.61%.

Journalists are deemed somewhat important by 43.55% of respondents, followed by 29.03% who see this as an important source. Sixteen point one three percent (16.13%) feel that journalists are a very important source and 11.29% see them as not important. None of the respondents feels that journalists are an essential source of information.

Table 5-11 shows that people, in the form of employees, peers and partners/subcontractors are the most important sources of information to the company, as the combined importance of the essential and very important categories is significantly higher than that in the other categories. People outside the 'inner circle', such as market analysists, industry experts and journalists, are seen as less important. This data supports the research by Jaworski, Macinnis and Kohli (2002, p. 287) who consider a competitive intelligence network, i.e. the informal sources of information of employees, as one of the four factors that influence the quality of intelligence.

When it comes to corporate websites/material/reports, 54.84% of respondents see this as an important source of information, while 20.97% see it is somewhat important, 12.90% as very important, 8.06% as essential and 3.23% as not important.

Trade shows/conferences are seen as somewhat important by 37.70%, important by 31.15%, very important by 14.75%, not important by 13.11% and essential by 3.28%.

Of the respondents, 36.07% view trade literature/journals as important, 34.43% as somewhat important, 16.39% as very important, 8.20% as not important and 4.92% as essential.

Industry analyst/research reports are seen as important by 32.79%, very important by 29.51%, somewhat important by 22.95%, essential by 11.48% and not important by 3.28%.

Specific government literature is seen as important by 38.71%, somewhat important by 25.81%, very important by 20.97%, not important by 8.06% and essential by 6.45%.

Table 5-11 shows that published materials, in the form of reports, journals and corporate and other formal marketing material, are seen as significantly less important sources of information than informal networks. When considering the combined importance of the essential and very important categories, the only source of relatively high importance compared to others in this category, is industry analyst or research reports. As a significant amount of the company's revenue comes from government projects, it is interesting to note that specific government literature is not considered to be of great importance. This might, however, be because information is sourced from information networks instead.

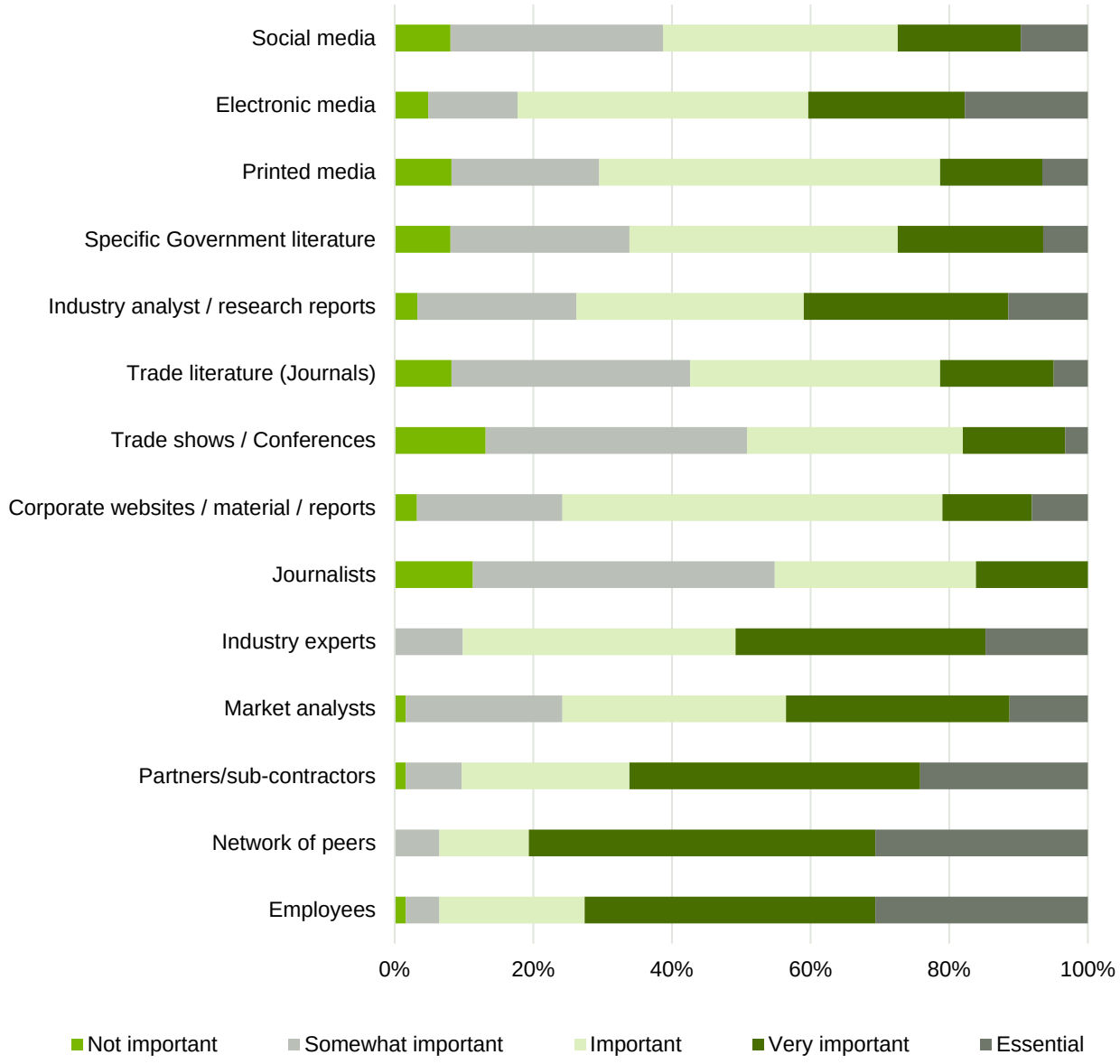

Figure 5-6: Importance of sources used for information gathering

Figure 5-6 shows that printed media is deemed important by 49.18% of respondents and somewhat important by 21.31%. Furthermore, 14.75% of respondents see printed media as very important, 8.20% as not important and 6.56% as essential.

Electronic media is seen as important by 41.94%, very important by 22.58%, essential by 17.74%, somewhat important by 12.90%, and not important by 4.84%.

Social media is seen as important by 33.87%, somewhat important by 30.65%, very important by 17.74%, essential by 9.68% and not important by 8.06%.

Generally, media (printed, electronic and social) is of slightly more importance to the company than published materials. Electronic media is the most important in this category; this can

probably be explained by the availability of access to the internet and other electronic sources via company networks.

5.2.3.1.8 Question 15: How important is the following information about competitors?

Table 5-12: Information on competitors

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Strategy	0	1	16	23	18	58
Commercial information	0	2	11	32	13	58
Service offering	1	0	11	29	16	57
Recruitment activity	1	3	22	24	8	58
Key experts	0	3	16	25	14	58
General news	1	19	28	7	3	58
					Answered question	58
					Skipped question	18

The data in Table 5-12 shows that when asked about the importance of information on the strategy of competitors, 39.66% of respondents rated it as very important, 31.03% as essential, 27.59% as important and 1.72% as somewhat important.

Commercial information on competitors, such as professional rates and financial results, is seen as very important by 55.17% of respondents, essential by 22.41%, important by 18.97% and somewhat important by 3.45%. None of the respondents sees this information as not important.

Information on the services offered by competitor companies is seen as very important by 50.88% of respondents, followed by 28.07% who see it as essential, while 19.30% see it as important and 1.75% as not important. No respondents view this information as somewhat important.

The recruitment activities of competitors are viewed as very important information by 41.38%, important by 37.93%, essential by 13.79%, somewhat important by 5.17% and not important by 1.72%.

Information on key experts employed by competitors is seen as very important by 43.10% of respondents, followed by 27.59% who see it as important, 24.14% who see it as essential and 5.17% as somewhat important. No respondents see key experts as not important. This is understandable, as key experts are arguably one of the most important differentiators in the consulting engineering industry.

General news on competitor firms is viewed as important by 48.28%, somewhat important by 32.76%, very important by 12.07%, essential by 5.17% and not important by 1.72%.

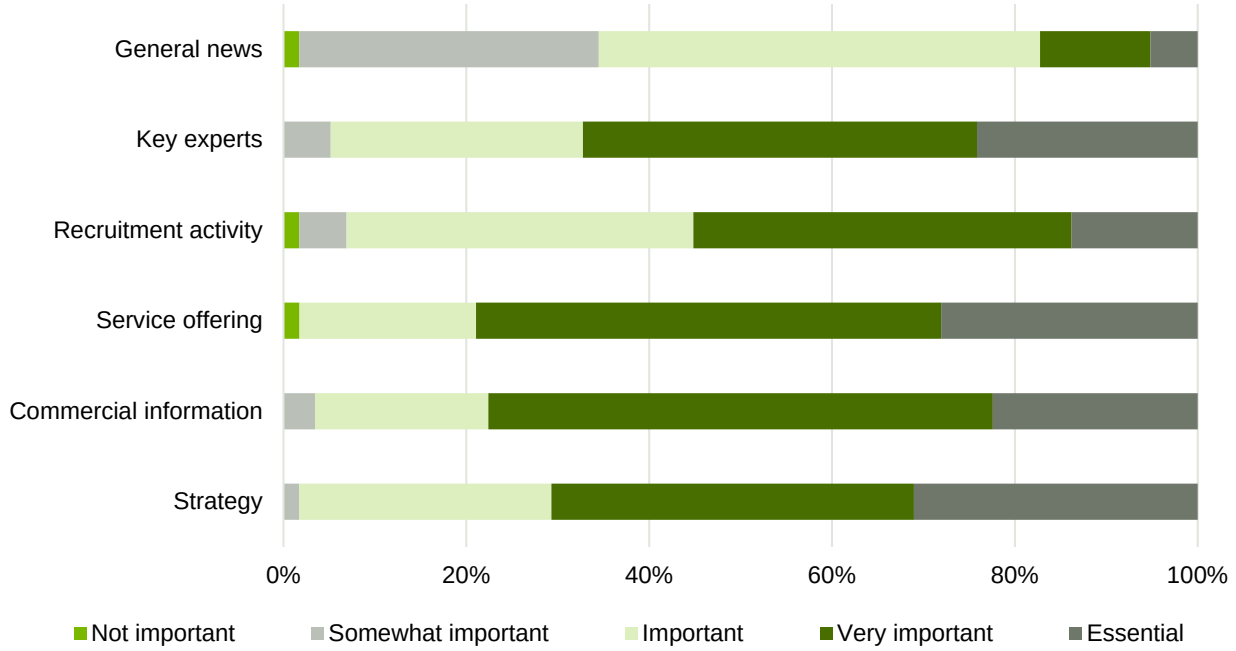

Figure 5-7: Importance of information on competitors

Figure 5-7 shows that when taking the essential and very important ratings into consideration, the company views information on the service offering, commercial aspects and strategy of competitors as most important. This is followed by information on key experts, recruitment activities and general news.

5.2.3.1.9 Question 16: How important is the following information about clients?

Table 5-13: Information on clients

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Strategy	0	0	0	23	38	61
Commercial information	0	0	4	22	35	61
Project pipeline	0	0	1	15	45	61
Procurement methods	0	1	4	16	40	61
Expertise required	0	0	4	21	36	61
General news	0	8	21	24	8	61
					Answered question	61
					Skipped question	15

When looking at client information, Table 5-13 shows 62.30% of respondents are of the opinion that information on strategy is essential, while 37.70% think it is very important. None of the respondents thinks that this type of information is not important, somewhat important or important.

Commercial information such as project budgets is viewed as essential by 57.38% of respondents, followed by 36.07% who view it as very important and 6.56% as important. None of the respondents views commercial information as not or somewhat important.

Procurement methods are viewed as essential by 65.57%, followed by 26.23% who view this as very important information, 6.56% as important and 1.64% as somewhat important. No respondents view this information as not important.

Information on the expertise required by clients for project execution is deemed essential by 59.02%, very important by 34.43% and important by 6.56%. None of the respondents views this information as not or somewhat important.

General news on clients is viewed as the least important information type with regard to clients, with 39.34% viewing it as very important, 34.43% as important and 13.11% as essential and the same percentage as somewhat important. None of the respondents views general news as not important.

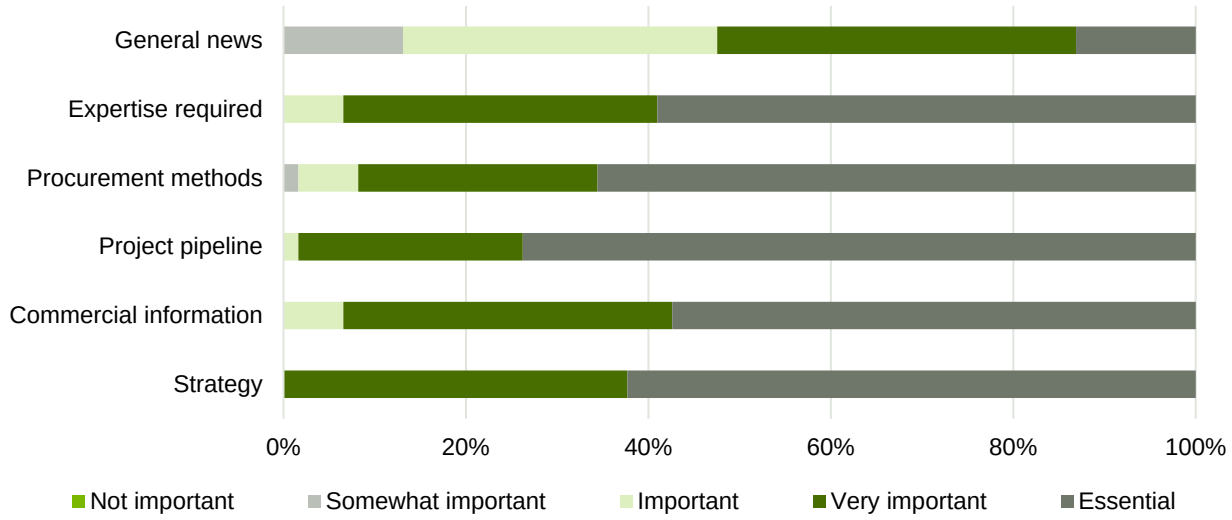

Figure 5-8: Importance of information on clients

In general, client information seems to be very important to the company. When looking at the essential and very important categories in Figure 5-8, client strategy is seen as the most important type of information, with project pipeline second and experience required and commercial information third. Procurement methods and general news take fourth and fifth place, respectively. This aligns with the data shown in Figure 5-3 and Table 5-10, indicating that the company collects and/or distributes client information most frequently, with 86.67% of respondents collecting information at least a few times a year.

5.2.3.1.10 Question 17: How important is the following information about partner/related industries?

Table 5-14: Information on partner/related industries

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Strategy	0	3	21	30	9	63
Commercial information	0	2	15	29	17	63
Service offering	0	1	16	28	18	63
Recruitment activity	2	11	21	22	7	63
Key experts	0	4	15	28	15	62
General news	4	21	27	9	2	63
					Answered question	63
					Skipped question	13

Where partners/companies in related industries are concerned, Table 5-14 indicates 47.62% of respondents are of the opinion that information on the strategies of these companies is very important, followed by 33.33% who view this as important, 14.29% as essential and 4.76% as somewhat important. No respondents think that it is not important.

Commercial information, such as professional rates and financial results, is viewed as very important by 46.03%, essential by 26.98%, important by 23.81% and somewhat important by 3.17%. No respondents think that commercial information is not important.

The service offering of partner/related industry companies is seen as very important by 44.44%, essential by 28.57%, important by 25.40% and somewhat important by 1.59%. No respondents think that this type of information is not important.

Information on the recruitment activities of partner/related industry companies is deemed very important by 34.92% of respondents, followed by 33.33% who view it as important, 17.46% as somewhat important, 11.11% as essential and 3.17% as not important.

Information on key experts employed by these companies is seen as very important by 45.16% of respondents, followed by 24.19% who see it as essential, 24.19% as important and 6.45%% as somewhat important. No respondents see key experts as not important.

General news on partner/related industry companies is viewed as important by 42.86%, somewhat important by 33.33%, very important by 14.29%, not important by 6.35% and essential by 3.17%.

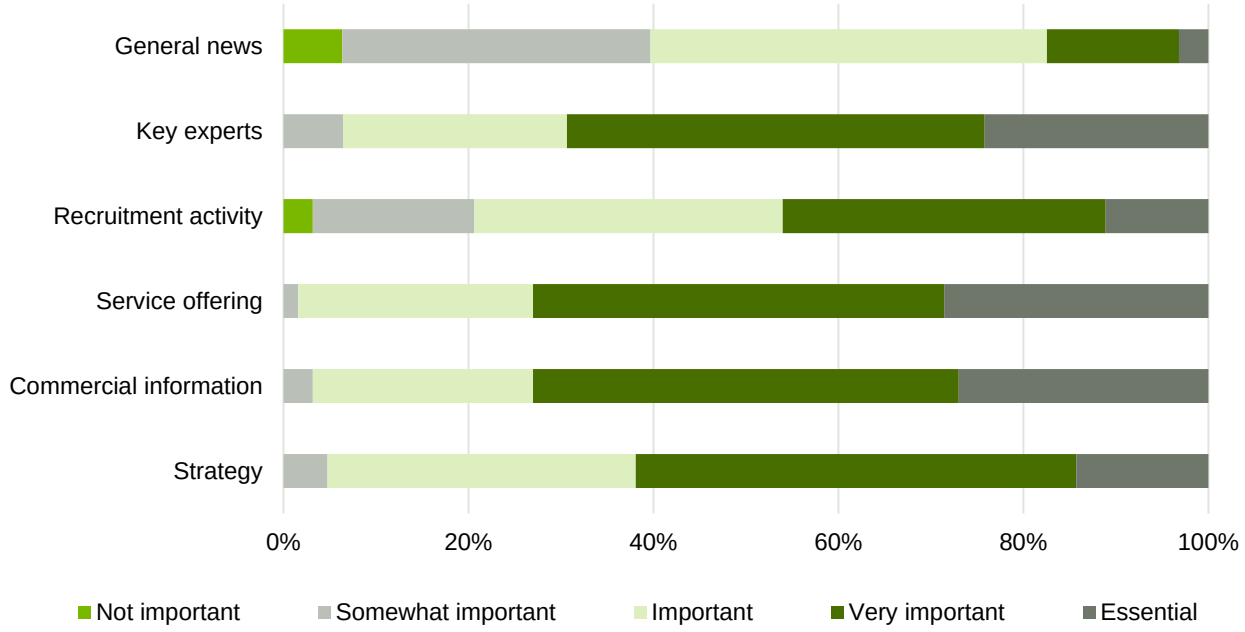

Figure 5-9: Importance of information about partner/related industries

Figure 5-9 illustrates the importance of information on partners or related industries to the company. It is clear that, when looking at the combined data in the essential and very important categories, commercial information and the service offering of these companies are most important, with key experts second and strategy third.

5.2.3.1.11 Question 18: Where do you store information on the following? (Mark all applicable)

Table 5-15: Storage of information

Response option	I don't store information	PC/ laptop	Local/ regional network drive	Global shared drive	Content server	Project-Wise	Response count
Competitors	13	34	15	0	5	0	64
Clients	5	22	27	5	17	0	64
Partners/related industries	10	27	23	2	6	0	65
External market factors	13	34	14	0	8	0	65
						Answered question	65
						Skipped question	11

In responding to the question on where information on competitors is stored, the data in Table 5-15 indicates 53.13% of respondents stated that they store this type of information on their

PC/laptop, 23.44% on a local/regional network drive, 20.31% do not store information on competitors and 7.81% store the information on Content Server. None of the respondents stores the information on a global shared drive or in ProjectWise (a document management solution the company uses).

Information on clients is stored by 42.19% of respondents on a local/regional network drive, 34.28% store it on their PC/laptop, 26.56% on Content Server, 7.81% on a global shared drive and 7.81% report that they do not store this information. None of the respondents stores the information in ProjectWise.

Furthermore, 41.45% of respondents report that they store information on partners/related industries on their PC/laptop, while 35.38% store this information on a local/regional network drive, 15.38% do not store this information, 9.38% use Content Server and 3.08% use a global shared drive. None of the respondents stores the information in ProjectWise.

Where external market factors are concerned, 52.31% of respondents store the information on their PC/laptop, followed by 21.54% who use a local/regional network drive, 20.00% who do not store this information and 12.31% who use Content Server. None of the respondents stores this information using a global shared drive or ProjectWise.

Respondents also had the option to comment on their responses, and investigation of the comments showed that other methods of storage included cloud-based platforms, such as OneNote, and mobile applications.

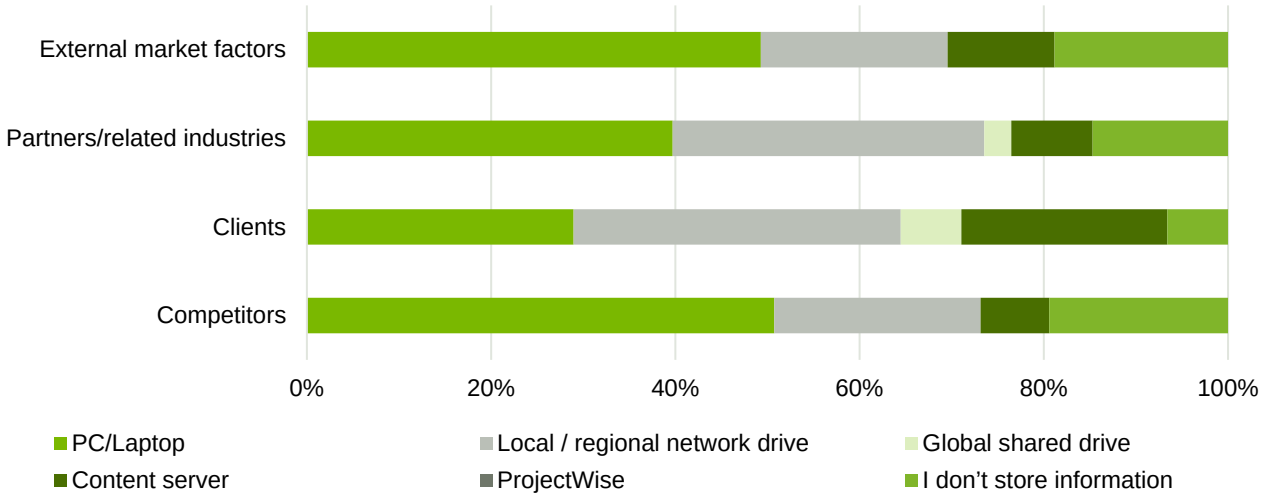

Figure 5-10: Locations used when storing information

It is interesting to note in Figure 5-10 that information on clients is stored by 76.56% of respondents using a platform that enables sharing, i.e. a local/regional network drive, global shared drive or Content Server. This aligns with the data shown in Figure 5-3, indicating that the company collects and/or distributes information on clients most often. This data is further

reinforced by the fact that information on competitors is the type of information collected and distributed least of all within the company and, as shown in Figure 5-10, stored on a PC/laptop or not stored by 73.44% of respondents.

There is an anomaly in the data where information on external market factors, which is collected and/or distributed most often after information on clients, is stored using a platform that enables sharing by 33.85% of respondents, while information on partners/related industries is stored in a way that enables sharing by 47.69% of respondents. It can, however, still be concluded that information is shared more frequently if it is deemed important enough.

5.2.3.1.12 Question 19: In what format do you store information? (Mark all applicable)

Table 5-16: Format in which information is stored

Response option	Response count	Response percentage
Word documents	50	80.65%
Excel spreadsheets	46	74.19%
Database	10	16.13%
Other (please specify)	16	25.81%
Answered question	62	
Skipped question	14	

The data in Table 5-16 shows that information in the company is mostly stored using Word documents, as 80.65% of respondents use this format. This is followed by Excel spreadsheets, at 74.19%, other formats at 25.81% and databases at 16.13%. The other formats used mostly include .pdf files, at 50%, while 37.50% of the respondents use email and 12.50% electronic links to websites.

5.2.3.1.13 Question 20: Do you think the company needs a system and/or process to store and share information on the following?

Table 5-17: System and/or process to store and share information

Response option	Yes	No	Don't know	Response count
Competitors	54	10	1	65
Clients	63	1	1	65
Partners/related industries	57	6	2	65
External market factors	45	13	6	64
Answered question				65
Skipped question				11

Table 5-17 shows an overwhelming majority of the respondents, 83.08%, felt that a system/process would be beneficial for storing and sharing competitor information, while 15.38% disagreed and 1.54% did not know.

Concerning sharing and storing information on clients, 96.92%% of respondents felt that such a system was needed, 1.54% disagreed and 1.54% did not know.

A system for storing and sharing information on partners/related industries was deemed a need by 87.69% of respondents, while 9.23% thought it was not needed and 3.08% did not know.

Where external market factors were concerned, 70.31% of respondents felt that a system/process was needed, 20.31% were of the opinion it was not and 9.38% did not know.

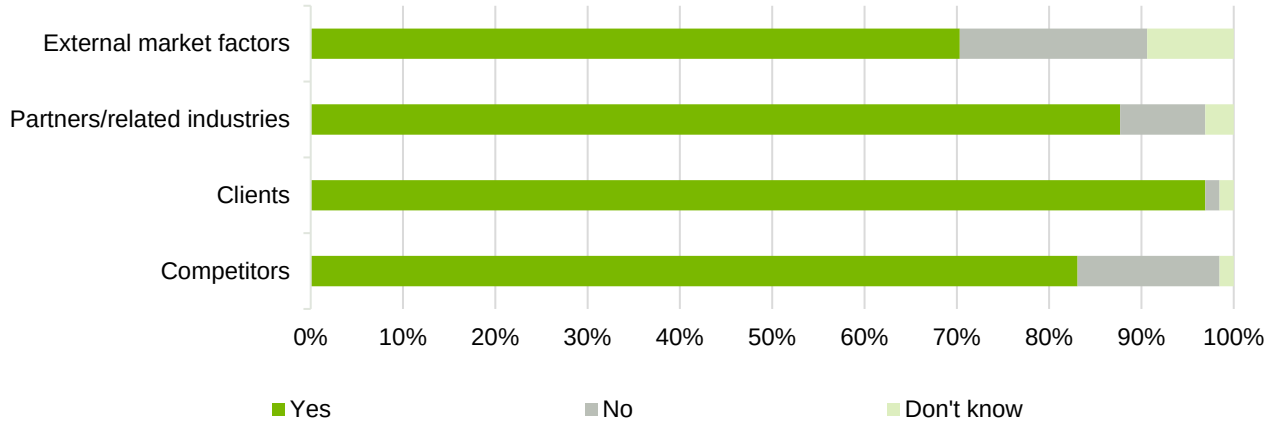

Figure 5-11: Need for a system and/or process to store and share information

Figure 5-11 illustrates that there is an overwhelming need in the company for a system and/or process that will guide the storing and sharing of information on clients, partners/related industries, competitors and, to a lesser extent, external market factors. This level of importance is reinforced by the data in Figure 5-10, where information stored using a platform that enables sharing is in the same order of importance, i.e. clients, followed by partners/related industries, competitors and external market factors.

5.2.3.1.14 Question 21: Please give a reason for your answer in Question 20 above

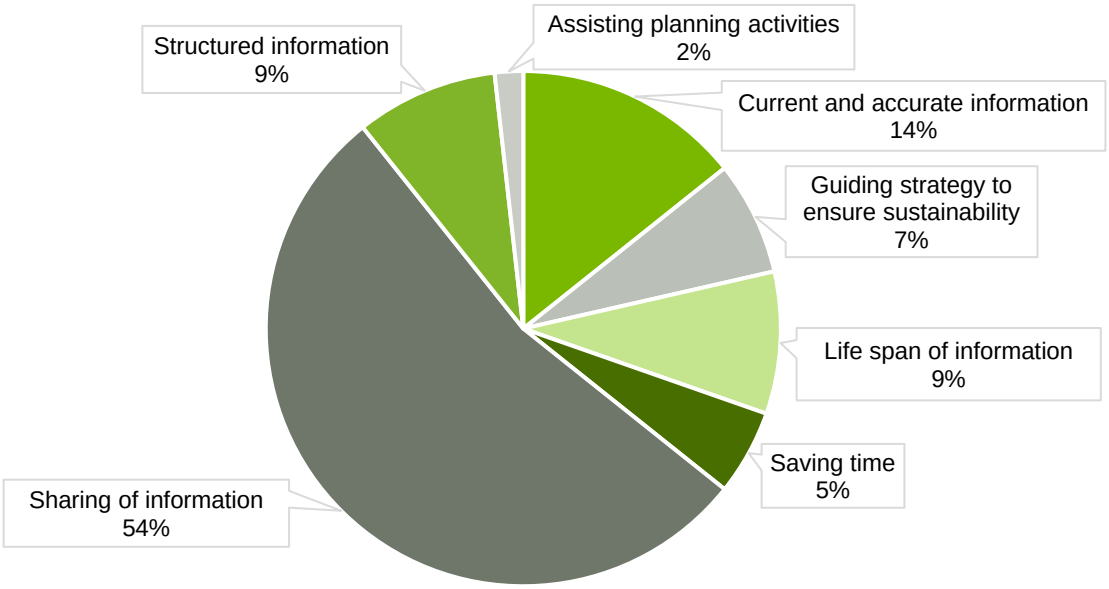

Figure 5-12: Reasons for the need for a system and/or process to store and share information

On studying the responses to this open-ended question as depicted in Figure 5-12, most respondents, 54%, are of the opinion that the ability to share information will be the biggest benefit in terms of a centralised repository. The reasons for the value seen in sharing differ, and include aspects such as consistency in approach across countries and regions, gaining a common understanding of trends and activities, improving accessibility to information, streamlining intelligence gathering, reducing duplication and improving corporate memory.

Current and accurate information is seen as a motivator towards a more formalised process and/or system by 14% of respondents. In contrast, the fact that information dates very quickly is seen as a reason for not implementing a system to store and/or share information by 9% of respondents. Most of these respondents state that storing this type of information is of limited value and that the biggest benefit lies in the ability to share the information, underpinning the response of the 54% majority discussed above.

The structured information that a system will provide, resulting in improved search ability and distribution of information, is cited as a motivator for a centralised system by 9% of respondents. Search ability and distribution can also be linked to sharing, and therefore further underpin the significant importance the company associates with sharing of information. This data is supported by 5% of respondents, who believe a centralised system for storing and/or distribution of information will save time spent on searching for information.

Seven percent (7%) of respondents are of the opinion that a system and/or process will help guide strategy in terms of what the company targets and how it can gain a competitive advantage over competitors, both in the long and short term. The successful implementation of this strategy will in turn ensure a sustainable business. This opinion is reinforced by 2% of respondents who consider a process and/or system an integral part of business planning.

5.2.3.2 Analysis and distribution

In this sub section, the analysis and distribution of information in the company will be investigated. This includes the preferred tools and techniques, frequency of information analysis and factors that influence the usefulness of information.

5.2.3.2.1 Question 22: How important are the tools or techniques below to you when you analyse information gathered?

Table 5-18: Tools and techniques used for information analysis

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Benchmarking	1	9	24	22	4	60
Competitor profiling	0	8	18	28	5	59
Environmental scanning/monitoring	6	19	22	9	4	60
Financial analysis	2	8	27	19	4	60
Gap analysis	3	8	28	16	5	60
Industry analysis	0	10	27	21	2	60
Macro-environment analysis	2	21	20	14	2	59
Scenario analysis	4	17	24	12	3	60
Strategic group analysis	2	14	27	15	1	59
Strategy games	10	25	21	3	1	60
SWOT analysis	2	10	23	22	3	60
Win/loss analysis	1	5	17	26	11	60
					Answered question	60
					Skipped question	15

The data in Table 5-18 shows that benchmarking as data analysis tool/technique is seen by 40.00% of respondents as important, 36.67% as very important and 15.00% as somewhat important. Only 6.67% of respondents view this tool/technique as essential, while 1.67% see it as not being important.

Competitor profiling is deemed very important by 47.46% of respondents, followed by 30.51% who see it as important, 13.56% as somewhat important and 8.47% as essential. None of the respondents sees this tool/technique as not important.

When it comes to environmental scanning/monitoring, 36.67% of the respondents are of the opinion that it is important, while 31.67% think it is somewhat important, 15.00% very important, 10.00% not important and 6.67% essential.

Financial analysis is seen as important by 45.00% of respondents, 31.67% view it as a very important information analysis tool/technique, while 13.33% see it as somewhat important, 6.67% as essential and 3.33% as not important.

Gap analysis is used as an important tool/technique by 46.67% of respondents. This is followed by 26.67% who view its use as very important, 13.33% as somewhat important, 8.33% as essential and 5.00% as not important.

Industry analysis is used and viewed as important by 45.00% of respondents, followed by 35.00% who deem this a very important tool/technique, 16.67% who see it as somewhat important and 3.33% as essential. No respondent sees industry analysis as not important.

Analysis of the macro-environment is deemed somewhat important by the majority of respondents at 35.59%, while 33.90% see it as important. It is seen as very important by 24.73%; 3.39% of respondents view it as not important and 3.39% as essential.

When it comes to scenario analysis, 40.00% of respondents think it is important, 28.33% somewhat important, 20.00% very important, 6.67% not important and 3.33% essential.

Strategic group analysis is seen as important by 45.76% of respondents. This is followed by 25.42% who deem it very important, 23.73% somewhat important, 3.39% not important and 1.69% essential.

Strategy games are seen as somewhat important by the majority of respondents at 41.67%, while 35.00% view these as important, 16.67% as not important, 5.00% as very important and 1.67% as essential.

The SWOT analysis of the competitive environment and the company itself is seen as an important tool/technique by 38.33% of respondents. This is followed by 36.67% who see it as very important, 16.67% as somewhat important, 5.00% as essential and 3.33% as not important.

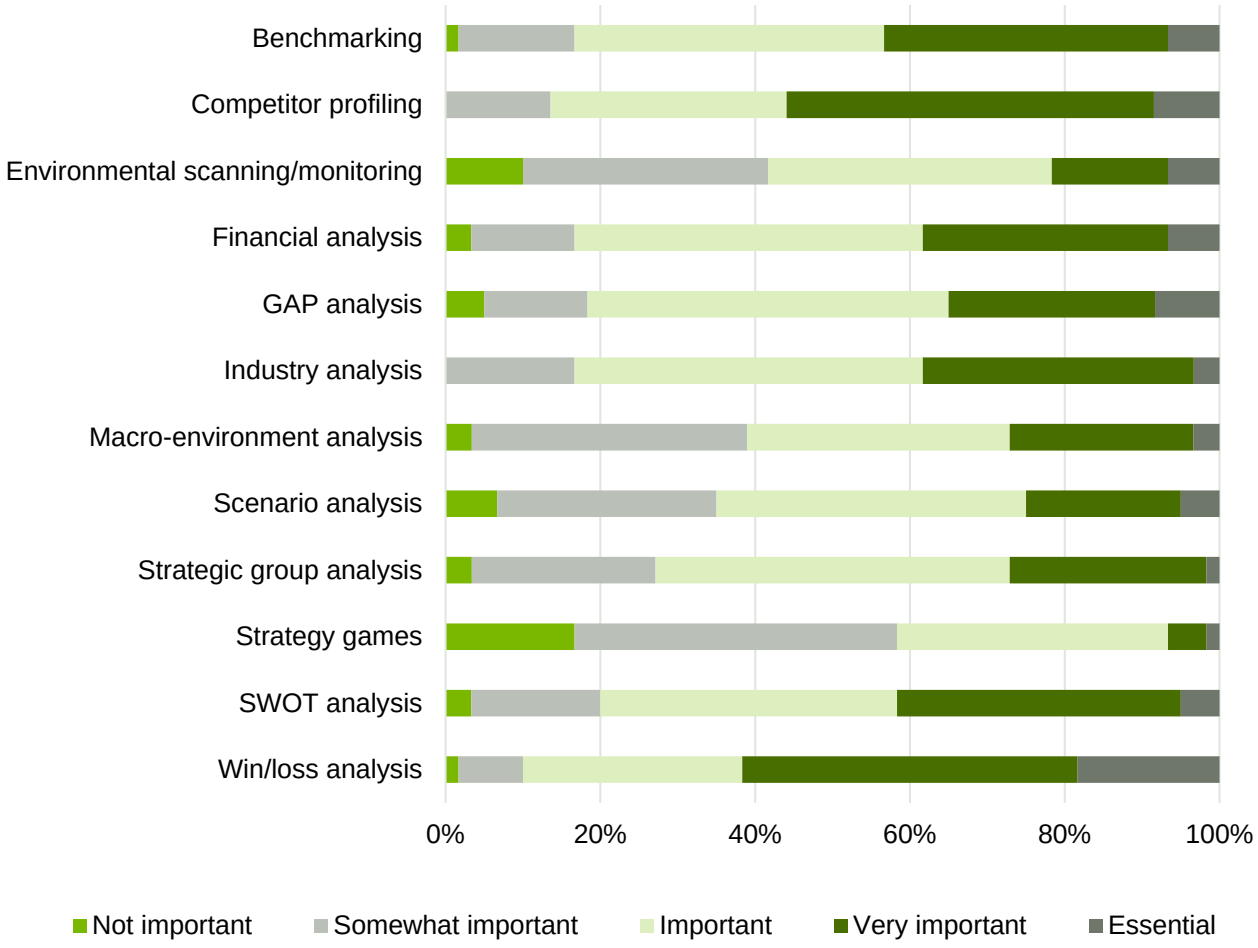

Figure 5-13: Usage rate of information analysis tools and techniques

Win/loss analysis is a very important tool/technique, according to 43.33% of respondents, while 28.33 believe it to be important, 18.33% essential, 8.33% somewhat important and 1.67% not important.

Respondents were also given the opportunity to comment further on their responses to the question, resulting in 1.67% of the respondents stating that no analysis of information was done.

In total, there are over 100 analytical tools and techniques (Pretorius, 2013, p. 62). Not all of the techniques work equally well and companies have to select the tool(s)/technique(s) or combination thereof that will be most beneficial. With hindsight, it might have been beneficial to have included explanatory notes on the tools and techniques, to ensure that respondents have the same understanding of what each entails.

When considering the combined data of the very important and essential categories in Figure 5-13, it is clear that win/loss analysis, competitor profiling and benchmarking are seen as the three most important information analysis tools/techniques within the company. Strategy games are seen as least important overall.

5.2.3.2.2 Question 23: How often do you share information with the rest of the company on the following?

Table 5-19: Information shared

Response option	Weekly/ Monthly	A few times a year	Yearly	Never	Response count
Competitors	24	30	1	5	60
Clients	38	19	1	2	60
Partners/related industries	21	30	4	5	60
External market factors	19	33	2	6	60
				Answered question	60
				Skipped question	16

The responses in Table 5-19 show that information on competitors is shared a few times a year by 50.00% of respondents, 40.00% share information weekly/monthly and 8.33% never share information, while 1.67% of the respondents share this type of information on a yearly basis.

Information on clients is shared weekly/monthly by 63.33% of respondents. This is followed by 31.67% who share information a few times a year, 3.33% who never share this information and 1.67% who share this information yearly.

When it comes to partners/related industries, information is shared by 50.00% of respondents a few times a year; 35.00% share this information weekly/monthly, 8.33% never and 6.67% on a yearly basis.

External market factor information is shared by 55.00% of respondents a few times a year, while 31.67% do this on a weekly/monthly basis. This is followed by 10.00% of respondents who never share this type of information and 3.33% who do this yearly.

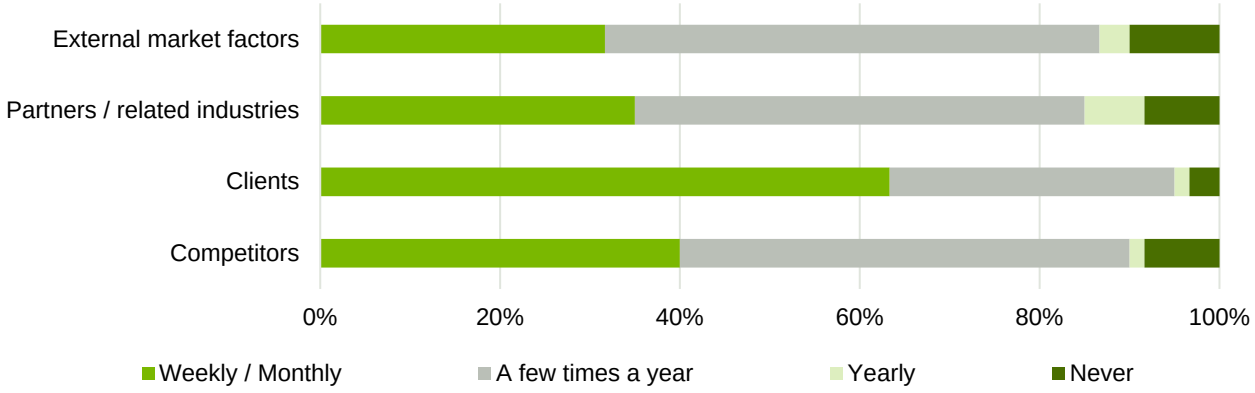

Figure 5-14: Frequency of information sharing

Figure 5-14 shows that when the weekly/monthly and a few times a year categories are taken into consideration, information on clients is shared most often by respondents, followed by competitors, external market factors and partners/related industries. The importance of clients is underpinned by the data in Figure 5-3, showing the frequency of information collection and/or distribution within the company. There is, however, an anomaly in the data in relation to the frequency of collection and/or distribution of competitor information versus the sharing of this information by respondents, as competitor information is perceived to be collected and/or distributed less often (Figure 5-3) than what it is reported to be shared by respondents (Figure 5-14).

5.2.3.2.3 Question 24: How often do you analyse information gathered on the following?

Table 5-20: Information analysis

Response option	Weekly/ Monthly	A few times a year	Yearly	Never	Response count
Competitors	24	30	1	5	60
Clients	38	19	1	2	60
Partners related industries	21	30	4	5	60
External market factors	19	33	2	6	60
				Answered question	60
				Skipped question	16

Table 5-20 shows the respondents who analyse information on competitors a few times a year amount to 63.33%, followed by 20.00% who analyse this type of information weekly/monthly and 11.67% who analyse it yearly. Five percent (5.00%) of the respondents report that they never analyse information on competitors.

Client information is analysed by 50.00% of respondents a few times a year, closely followed by 46.67% who analyse this information on a weekly/monthly basis, whereas 3.33% report that they never analyse client information. None of the respondents does the analysis yearly.

Information on partners/related industries is analysed a few times a year by 58.33% of respondents, while 21.67% state that they analyse this type of information weekly/monthly, followed by 11.67% who do a yearly analysis and 8.33% who never analyse information on partners/related industries.

Respondents who analyse external market factors a few times a year amount to 64.41%, while 23.73% do the analysis on a weekly/monthly basis, 6.78% report that they do it yearly and 5.08% never do it.

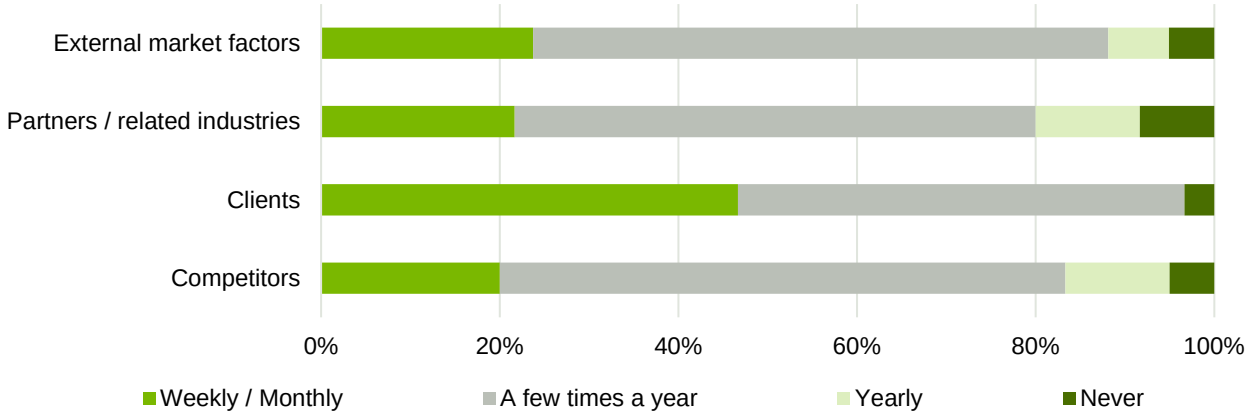

Figure 5-15: Frequency of analysis of information gathered

To stay competitive, companies have to use available information and transform it (through analysis) into actionable intelligence and foresight (Strauss & Du Toit, 2010, p. 305). When combining the data in the weekly/monthly and a few times a year categories in Figure 5-15, information on clients is analysed most often. This is not surprising, as client information is also consistently shown to be most widely collected, distributed and/or shared across the company.

5.2.3.2.4 Question 25: How important is each attribute below to ensure useful information?

Table 5-21: Factors ensuring usefulness of information

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Accuracy/correctness	0	2	11	26	23	62
Clarity	0	0	14	40	8	62
Usability	0	0	19	24	19	62
Relevance	0	1	15	29	17	62
Responsiveness	1	6	23	24	7	61
Timeliness	0	5	17	25	15	62
Comprehensiveness/depth	1	3	28	25	5	62
					Answered question	62
					Skipped question	14

Research suggests (Nasri, 2012, p. 29; Pretorius, 2013, p. 58) that there is a number of attributes that can be used to measure the value of intelligence, i.e. accuracy/correctness, clarity, usability, relevance, responsiveness, timeliness and comprehensiveness/depth.

Table 5-21 shows that when asked about the importance of accuracy/correctness of information, 41.94% of respondents were of the opinion that this attribute is very important, 37.10% felt it was

essential, 17.74% important and 3.23% somewhat important. None of the respondents thought that this attribute was not important.

Clarity of information is deemed very important by 64.52% of respondents. This is followed by 22.58% who state that this attribute is important and 12.90% who say it is essential. No respondent feels that this attribute is somewhat important or not important at all.

The usability of information is rated as very important by 38.71%, while 30.65% feel that is important and 30.65% essential. No respondent feels that this attribute is somewhat important or not important at all.

The relevance of information is rated as very important by 46.77%, while 27.42% see it as essential, 24.19% as important and 1.61% as somewhat important. None of the respondents thinks that the relevance of information is not an important attribute.

Responsiveness, i.e. the time it takes to deliver requested information, is seen as very important by 39.34% of respondents. This is followed by 37.70% who deem this attribute important, 11.48% who see it as essential, 9.84% as somewhat important and 1.64% who think it is not important.

Timeliness of information are rated as very important by 40.32% of respondents, important by 27.42%, essential by 24.19% and somewhat important by 8.06%. No respondent deems this attribute not important.

The comprehensiveness/depth of information is considered an important attribute by 45.16%, while 40.32% think it very important, 8.06% essential, 4.84% somewhat important and 1.61% not important.

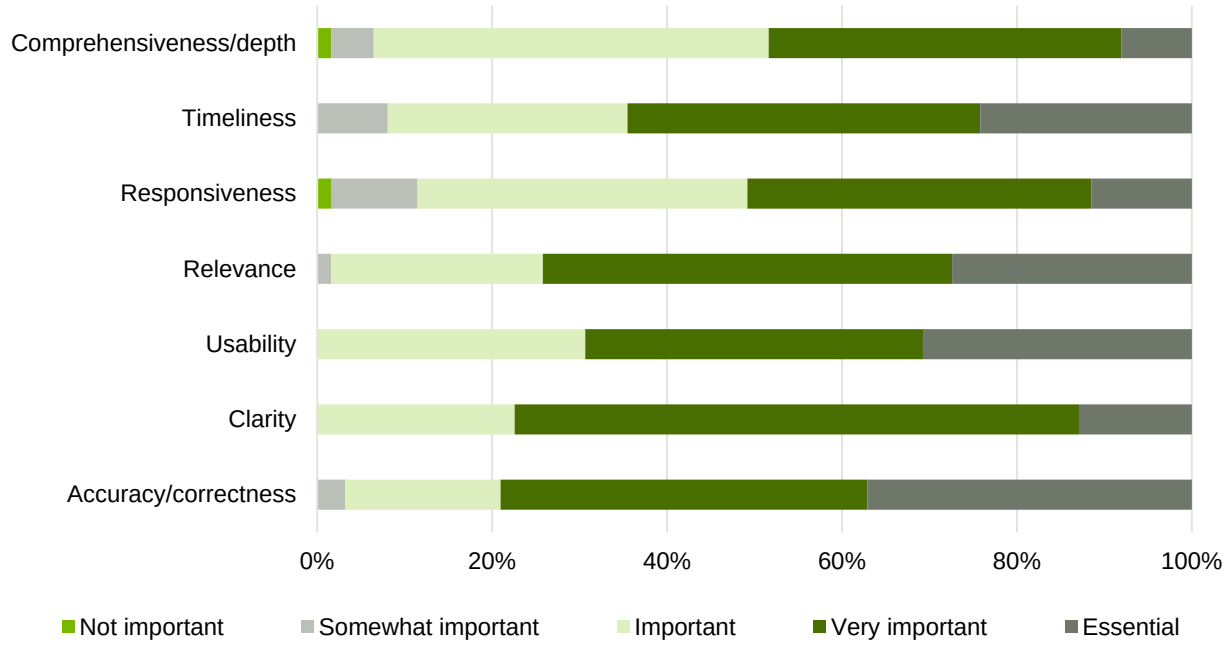

Figure 5-16: Importance of factors ensuring usefulness of information

When combining the results in the essential and very important categories in Figure 5-16, it is apparent that the company rates the accuracy, clarity and relevance of information as the three most important attributes linked to the usefulness of information. This can be expected, as key decisions are made based on information received, and if information is incorrect, not understandable or insignificant from the viewpoint of senior management, it is of no/very little use.

5.2.3.3 Benefits and challenges

In this sub section, the importance of the benefits of competitive intelligence will be investigated in terms of gaining a competitive advantage.

5.2.3.3.1 Question 26: How important is the following in terms of competitive advantage?

Table 5-22: Benefits/challenges for gaining competitive advantage

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Continual insights into the competitive arena	0	4	14	23	16	57
Early warning of future opportunities, disruptions, and competitive services/ products	0	1	9	19	28	57
Development of strategies that will drive sustainable advantage	0	0	11	21	25	57
Shaping of counter-competitive strategies	0	2	20	25	10	57
Exploration of knowledge gaps	0	2	20	28	7	57
Sharing know-how in problem-solving	0	3	24	16	14	57
Creating new knowledge and permanent learning	0	3	14	25	15	57
Challenging conventional wisdom and questioning assumptions	0	1	14	26	16	57
Meeting the unique information needs of the company	1	5	19	20	12	57

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Strong corporate culture focused on competitive intelligence	0	6	16	18	17	57
Effective implementation of competitive intelligence programmes	0	8	14	21	14	57
Resources to conduct competitive intelligence	0	7	21	18	11	57
Identification of the company's strengths	0	3	17	23	14	57
Identification of the company's vulnerabilities and where the risks of attack are too great	0	4	14	20	19	57
Assessment of the company's competitiveness through benchmarking	0	5	17	28	7	57
Identification of competitors' thought processes	0	6	23	24	4	57
Identification of competitors' strengths	0	2	18	26	10	56
Identification of competitors' weaknesses and opportunities for competitive advantage	0	2	15	25	15	57
					Answered question	57
					Skipped question	19

From a company perspective, competitive intelligence offers many benefits (Aware: Competitive intelligence for business success, 2013; Business Performance Management: Statements on Management Accounting, 1996, p. 3; Fuld + Company, 2014; Pretorius, 2013, p. 56). When asked what the importance of having continual insight into the competitive arena is for the company, the data in Table 5-22 and Figure 5-17 show 40.35% of respondents thought this very important, 28.07% essential, 24.56% important and 7.02% somewhat important. None of the respondents thought this aspect unimportant.

Early warning of future opportunities, disruptions and competitive service offerings are deemed essential by 49.12% of respondents, followed by 33.33% who think it very important, 15.79% important and 1.75% somewhat important. No respondent considers early warning unimportant. It is interesting to note the majority of respondents see this aspect as essential. This is plausible, as there is currently a drive in the company, through various initiatives, to embrace digital and other disruptions and use these as a differentiator. The importance of early warning is supported by 38% of the company who have been blindsided by market events previously (Table 5-34), as early warning could have ensured better preparedness for these events.

The development of strategies that will drive sustainable advantage is regarded as important in terms of competitive advantage by 43.86% of respondents. This is followed by 36.84% who think it very important and 19.30% who deem it important. None of the respondents is of the opinion that the development of strategies that will drive sustainable advantage is somewhat important or unimportant. Based on the data in the essential category, this aspect is the second most important to the company.

The shaping of counter-competitive strategies is very important to 43.86% of respondents, important to 35.09%, essential to 17.54% and somewhat important to 3.51%. None of the respondents considers this not important.

In terms of gaining a competitive advantage, exploring the knowledge gaps within the company is seen as very important by 49.12%, important by 35.09%, essential by 12.28% and somewhat important by 3.51%. None of the respondents considers this not important.

When looking at knowledge transfer when solving problems, 42.11% of respondents agree that it is an important aspect for gaining a competitive advantage, while 28.07% consider it very important, 24.56% think it is essential and 5.26% somewhat important. None of the respondents considers this unimportant.

Creating new knowledge and continual learning are seen as very important by 43.86%, essential by 26.32% and important by 24.56% of respondents, whereas 5.26% think it is somewhat important and no one thinks it is unimportant. As the majority of respondents are of the opinion that creating new knowledge and continual learning are important for gaining a competitive advantage, the establishment of the companies' Design Academy, where technical staff are trained by renowned specialists in the company, and its in-house training programme are noted. It can be concluded that sharing knowledge and innovative thinking across the company will result in "networks of engaged, collaborative and diverse groups of people committed to a common purpose" (Forbes, 2015).

Challenging conventional wisdom and questioning assumptions can also be described as key requirements for innovation and are deemed very important by 45.61% of respondents. Following

this, 28.07% of respondents consider these essential for a competitive advantage, 24.56% as important and 1.75% as somewhat important.

When looking at meeting the unique information needs of the company as a method of gaining a competitive advantage, 35.09% think it very important, 33.33% important, 21.05% essential, 8.77% somewhat important and 1.75% not important.

A strong corporate culture focussed on competitive intelligence is thought to be very important by 31.58% of respondents. This is followed by 29.82% who deem it essential, 28.07% who think it important and 10.53% who consider it somewhat important. It is interesting to note that, even though 61% of respondents state that a strong competitive intelligence culture is at least very important, 53% of the company are of the opinion that this culture is weak (Table 5-24). This is an aspect to which the top management of the company should pay attention.

A significant number of respondents, 36.84%, agree that the effective implementation of competitive intelligence programmes is very important for gaining a competitive advantage, while 24.56% think it essential, 24.56% important and 14.04% somewhat important. None of the respondents considers this an aspect that is not important.

The availability of resources within the company to conduct competitive intelligence programmes is seen as important by 36.84% of respondents, while 31.58% think it is very important, 19.30% essential and 12.28% somewhat important.

One of the tools/techniques of competitive intelligence is the SWOT analysis, where the strengths, weaknesses, opportunities and threats of the company and those of its competitors are studied. The data in Table 5-18 shows that the use of this tool is believed to be important by the company and supports the data in Table 5-22, where the identification of the company's strengths is seen as very important by 40.35% of respondents, while 29.82% consider it to be important, 24.56% essential and 5.26% somewhat important. None of the respondents states that SWOT analysis is unimportant.

The identification of the companies' weaknesses/vulnerabilities, on the other hand, is thought to be very important by 35.09% and 33.33% think it essential. This is followed by 24.56% who consider it important and 7.02% somewhat important. It is interesting to note that even though the responses under the essential and very important categories differ, the combined responses regarding the importance of the identification of the company's strengths and weaknesses are very similar at 64.91% and 68.42% respectively.

Benchmarking as a way to assess the competitiveness of the company is very important to 49.12% of respondents, important to 29.82%, essential to 12.28% and somewhat important to 8.77%. Together with the exploration of knowledge gaps, this aspect has the highest rating under

the very important category. As the company is benchmarked annually by the ENR, it is understandable that this is viewed as a very important aspect of gaining a competitive advantage.

The identification of competitors' thought processes is seen as very important by 42.11% of respondents, important by 40.35%, somewhat important by 10.53% and essential by 7.02%. None of the respondents feels than this aspect is not important.

When it comes to identifying the strengths of competitors, 46.43% of the respondents are of the opinion that it is very important. This is followed by the 32.14% who deem it important, 17.86% who consider it essential and 3.57% who think it somewhat important. None of the respondents feels that this aspect is not important.

In the same vein, the identification of the weaknesses of competitors is seen as very important by 46.43%, important by 32.14%, essential by 17.86% and somewhat important by 3.57%. Of interest is the fact that, when looking at the combined data under the very important and essential categories, the importance of looking at competitor strengths and weaknesses is seen as marginally higher than that of the company in both instances.

Figure 5-17: Importance of benefits/challenges for gaining competitive advantage

5.2.3.4 Competitive intelligence culture

In this sub section, the maturity of the competitive intelligence culture in the company will be investigated.

5.2.3.4.1 Question 27: Do you think that there is awareness in the company of the benefits of competitive intelligence and a culture of competitiveness?

Table 5-23: Awareness of the benefits of competitive intelligence and culture of competitiveness

Response option	Response count	Response percentage
Yes	26	46.40%
No	25	44.60%
Don't know	5	8.90%
Answered question	56	
Skipped question	20	

According to 46.40% of respondents, there is awareness of the benefits of competitive intelligence and a culture of competitiveness in the company, but 44.60% of respondents disagree with this and 8.90% state that they do not know if such awareness and culture exist (Table 5-23). The parallel between the answers in the positive and negative is noticeable and can be seen as an indication of the areas within the company where there is awareness of and belief in the benefits of competitive intelligence and a culture of competitiveness versus the areas where this is not the case. This difference is further emphasised by the comments respondents could give as part of their response to this question.

Comments range from the opinion that competitive intelligence is imbedded in company strategy and discussed at various forums to the fact that there is awareness in selected areas of the company but that no resulting action is taken and no formal process exists. It can therefore be concluded that there is awareness of the benefits of competitive intelligence and the culture of competitiveness in select areas of the company. To enhance the competitive intelligence culture in the company, competitive intelligence should be integrated throughout the company, embedded in and aligned with the company's infrastructure, as reflected in the need for a formalised process and system to store/share information (Figure 5-11) (Viviers, Saayman & Muller, 2005, p. 586).

5.2.3.4.2 Question 28: How mature is the company culture and ability for knowledge sharing about competitive issues in the company?

Table 5-24: Maturity of knowledge sharing culture

Response option	Response count	Response percentage
Strong	0	0.00%
Moderate	21	37.50%
Weak	30	53.60%
Not at all	2	3.60%
Don't know	3	5.40%
Answered question	56	
Skipped question	20	

The data in Table 5-24 suggests that the competitive intelligence culture in the company can be improved significantly. This is evident from the 53.60% of respondents who state that the company culture and ability for knowledge sharing about competitive issues are weak, 37.50% who think that the culture is moderate, 5.40% who do not know how mature the culture is and 3.60% who are of the opinion that the company does not have such a culture at all. None of the respondents thinks the company has a strong competitive intelligence culture.

5.2.3.4.3 Question 29: How important is the following in influencing/creating this awareness and culture?

Table 5-25: Factors influencing competitive intelligence awareness and culture

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Centralised information	1	8	16	22	9	56
Dedicated resources for gathering and analysing competitive intelligence	0	11	19	18	8	56
Creating an intelligence database	2	6	18	21	9	56
Having continual competitive intelligence awareness, sensitisation and training sessions	4	9	27	9	7	56

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Rewarding staff for collecting and sharing information and knowledge	4	15	16	17	4	56
Encouraging regular discussions about competitive intelligence and the importance of a learning/knowledge-based culture	0	7	12	26	11	56
Joining forces with academia, the public and private sector as well as international experts	4	10	20	10	12	56
Establishing practical codes of ethics to guide employees on what should not be part of competitive strategies or intelligence-gathering efforts	4	12	18	14	8	56
					Answered question	56
					Skipped question	20

Establishing a competitive intelligence culture within a company is a key element in the success of any competitive intelligence effort, and can be done by implementing various interventions, including making the organisational changes necessary to enable and drive such a culture (Viviers, Saayman & Muller, 2005, pp. 585-586). In answering the question about the importance of centralised information in influencing/creating this awareness and culture in the company, 39.29% of respondents regarded this as very important, 28.57% as important, 16.07% as essential, 14.29% as somewhat important and 1.79% as not important (Table 5-25).

Dedicated resources for gathering and analysing competitive intelligence are deemed important by 33.93% of respondents, followed by 32.14% who think them important, 19.64% somewhat important and 14.29% essential. None of the respondents is of the opinion that dedicated resources are not important.

An intelligence database is seen as very important by 37.50% of the respondents, important by 32.14% and essential by 16.07%, whereas 10.71% deem it somewhat important and 3.57% not important.

Continual competitive intelligence awareness, sensitisation and training sessions across the company are thought to be important by 48.21% of respondents, while 16.07% see these as very important, 16.07% as somewhat important, 12.50% as essential and 7.14% as not important.

Rewards for collecting and sharing information and knowledge can be tangible or intangible (Alony, Whymark & Jones, 2007, p. 53) and 30.36% of respondents feel that this is a very important aspect in establishing a competitive intelligence culture. This is followed by 28.57% who deem it important, 26.79% somewhat important, 7.14% essential and 7.14% not important.

Encouraging regular discussions about competitive intelligence and the importance of a learning/knowledge-based culture is considered very important by 46.42% of respondents, important by 21.43%, essential by 19.46% and somewhat important by 12.50%. None of the respondents is of the opinion that regular discussions are not important.

Joining forces with academia, the public and private sector, as well as international experts, is deemed important by 35.71% of respondents, essential by 21.43%, important by 17.86%, somewhat important by 17.86% and not important by 7.14%. The majority of respondents view this as an essential factor for competitive intelligence awareness and culture. The company has established relationships with various universities in Australia and South Africa. These relationships can be seen as a key contributor to innovation, highlighting the importance of innovation to the company.

Figure 5-18: Importance of factors influencing competitive intelligence awareness and culture

Establishing practical codes of ethics to guide employees on what should not be part of competitive strategies or intelligence-gathering efforts is considered important by 32.14% of respondents. This is followed by 25.00% who think it very important, 21.43% who consider it somewhat important, 14.29% who deem it essential and 7.14% who see it as not important.

Figure 5-18 shows that of the eight interventions a company can consider to influence competitive intelligence awareness and culture (Viviers, Saayman & Muller, 2005, pp. 585-586), encouraging regular discussions about competitive intelligence is viewed as most important by the company (when combining the data in the essential and very important categories). This is followed by a central point of information and the creation of an intelligence database. Although not viewed as most important by the company, the fact that the creation of an intelligence database is ranked as third most important underpins the data in Figure 5-11, showing the overwhelming need for a system and/or process to store and share information.

5.2.3.4.4 Question 30: In your view, is there visible support from senior and top management for intelligence gathering and distribution?

Table 5-26: Visible support from senior and top management for intelligence gathering and distribution

Response option	Response count	Response percentage
Yes	29	51.80%
No	18	32.10%
Don't know	9	16.10%
Answered question	56	
Skipped question	20	

Visible support for, and use of, intelligence by senior and top management are of key importance to the success of competitive intelligence efforts (Nasri, 2011, p. 56). Table 5-26 shows that according to 51.80% of respondents, there is visible support from senior and top management for intelligence gathering and distribution in the company, but 32.10) of respondents disagree with this and 16.10% state that they do not know if there is visible support. As the majority of respondents form part of the senior and executive management of the company, the relatively high response of those who do not know if there is visible support is noted and is emphasised after analysis of the additional comments.

Comments range from the opinion that visible support is evident in various discussions and forums, to the fact that there are other priorities in the company or that there is support, but that no real investment has been made in driving such a culture. It can therefore be deduced that there is support from senior and top management for intelligence gathering and distribution in the

company and that it is practised in some areas of the company more than in others. This aligns with the results in Table 5-23, where it was concluded that there is awareness of the benefits of competitive intelligence and knowledge sharing in some parts of the company.

5.2.3.4.5 Question 31: In your view, is there visible use of the intelligence by senior and top management?

Table 5-27: Visible use of intelligence by senior and top management

Response option	Response count	Response percentage
Yes	30	53.6 %
No	12	21.4 %
Don't know	14	25.0 %
Answered question	56	
Skipped question	20	

Table 5-27 shows that according to 53.60% of respondents, there is visible use of intelligence by senior and top management in the company, but 21.40% of respondents differ, saying there is no visible use of intelligence by management, and 25.00% state that they do not know. As in the case of the data in Table 5-26, the significant number of respondents who do not know is noted. In this case, the number is even higher, which is of concern. The comments respondents could give as part of their response to this question furthermore show that where there is visible use, it is ad hoc and in selected areas of the company.

As noted previously, visible awareness, support and use of intelligence are of key importance to any intelligence effort (Nasri, 2011, p. 56). The data in Table 5-26 and Table 5-27 show that to a certain extent, there is visible support from and use by the senior and top management of the company. However, this support and use should be embedded across the company and not just in certain areas.

5.2.3.4.6 Question 32: What will motivate you to share competitive information within the company? (Mark all applicable)

Table 5-28: Motivators for sharing competitive intelligence

Response option	Response count	Response percentage
Reward/revenue growth	35	64.81%
Recognition	19	35.19%
Senior management support	33	61.11%
Other (please specify)	7	12.96%
Answered question	54	
Skipped question	22	

The data in Table 5-28 shows that financial reward and/or revenue growth is the most important motivator in terms of sharing competitive information in the company, with 64.81% of respondents stating that this will be a motivator. From the comments, it is evident that this reward is not seen as relevant for sharing information on a case-by-case basis, but rather in terms of improved win rates and financial results resulting in increased shareholder value. Following closely on reward/revenue growth is senior management support, with 61.11% of respondents considering this to be the most important motivator. Trailing behind this is recognition at 35.19% and other at 12.96%. Upon closer inspection of the additional motivators listed, an easy-to-follow process and distribution channels and appropriate use of the intelligence are listed by the majority of respondents.

Research shows that rewarding staff for collecting and sharing information and knowledge, in the form of bonuses, once-off rewards, status or recognition, can be beneficial for embedding a competitive intelligence culture in a company (Alony, Whymark & Jones, 2007, p. 53; Jaworski, Macinnis, & Kohli, 2002, pp. 293-294; Venter & Tustin, 2009, p. 93). This research is supported by the data in Table 5-28.

5.2.3.5 Competitive intelligence and business strategy

In this sub section, the link between competitive intelligence and business strategy in the company will be investigated. This is done by looking at its importance, influence on decision-making, the availability of intelligence to assist decision-making and the adaptability of various strategies.

5.2.3.5.1 Question 33: How important is competitive intelligence for the following?

Table 5-29: Competitive intelligence in business strategy

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Effective decision-making	0	1	13	24	17	55
Gaining competitive advantage	0	0	8	21	27	56
					Answered question	56
					Skipped question	20

When asked about the importance of competitive intelligence for effective decision-making, 43.64% of respondents are of the opinion that it is very important, 30.91% think it is essential, 23.64% deem it important and 1.82% somewhat important. None of the respondents thinks that competitive intelligence is not important for effective decision-making (Table 5-29).

In terms of the importance of competitive intelligence for gaining competitive advantage, 48.21% consider it essential, 37.50% very important and 14.29% important. None of the respondents thinks that competitive intelligence is somewhat important or not important for gaining competitive advantage.

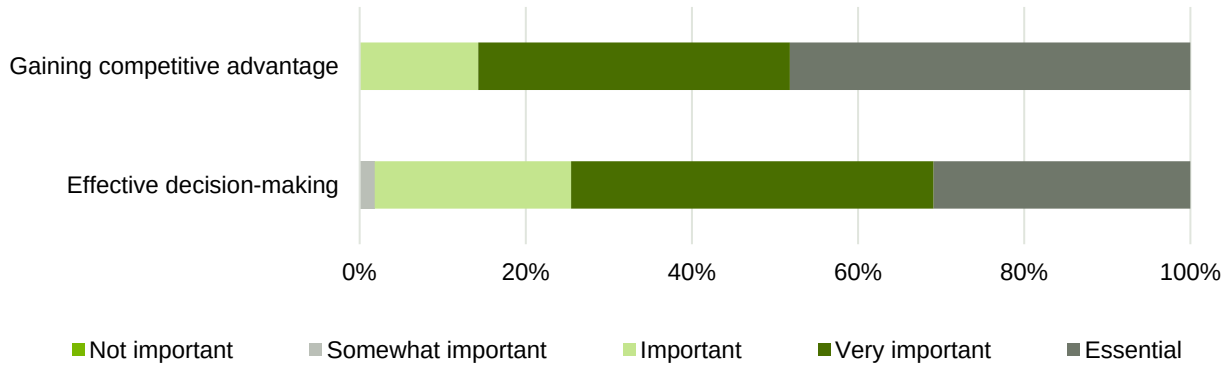

Figure 5-19: Importance of competitive intelligence in business strategy

When combining the data in the very important and essential categories, Figure 5-19 shows that the company views competitive intelligence as more important for gaining competitive advantage than for effective decision-making. This is interesting, as it can be argued that gaining competitive advantage results from effective decision-making.

5.2.3.5.2 Question 34: What influence does competitive intelligence have on decision-making?

Table 5-30: Influence of competitive intelligence on decision-making

Response option	Response count	Response percentage
Very positive influence	26	46.40%
Positive influence	29	51.80%
Neither a positive nor a negative influence	1	1.80%
Negative influence	0	0.00%
Answered question	56	
Skipped question	20	

The company is of the opinion that competitive intelligence has a positive influence on decision-making. This is clear from data in Table 5-30, where 51.80% of respondents state that it has a positive influence and 46.40% a very positive influence; however, 1.80% disagree with this, stating that competitive intelligence does not have a positive or negative influence. None of the respondents thinks that it has a negative influence.

5.2.3.5.3 Question 35: How frequently do you make intelligence available to assist in strategic decision-making in the following?

Table 5-31: Availability of intelligence to assist in strategic decision-making

Response option	Weekly/ Monthly	A few times a year	Yearly	Never	Response count
Unit	27	21	1	6	55
Market	21	28	2	3	54
Country	13	32	3	7	55
Region	14	29	6	6	55
Company	6	31	7	11	55
Answered question					56
Skipped question					20

When asked about the frequency with which they make intelligence available to assist in strategic decision-making in different units in the company, 49.09% of respondents stated that they do this weekly/monthly, 38.18% do it a few times a year, 1.82% do it yearly and 10.91% never. The data in Table 5-31 further shows that intelligence to support decision-making in units is shared most frequently in the company; this is understandable, as a large number of the respondents fulfil the role of unit manager.

Intelligence to assist in strategic decision-making in different markets in the company is made available a few times a year by 51.85% of respondents, followed by 38.89% who do this weekly/monthly, 3.70% yearly and 5.56% never.

Strategic decision-making about countries in which the company operates is supported by intelligence received a few times a year from 58.18% of respondents, weekly/monthly from 23.64%, never from 12.73% and yearly from 5.45%. It is encouraging to note that, even though intelligence to support decision-making in countries is not shared as often as in units, it is mostly shared a few times a year.

Strategic decision-making about regions in which the company operates is supported by intelligence received a few times a year from 52.73% of respondents, weekly/monthly from 25.45%, never from 10.91% and yearly from 10.91%. This data underpins the previous results, where information to support decision-making in countries is shared a few times a year, as intelligence on a country can play a significant role in a specific region.

Information that can assist the company with strategic decision-making is shared a few times a year by 56.36% of respondents, never by 20.00%, yearly by 12.73% and weekly/monthly by 10.91%.

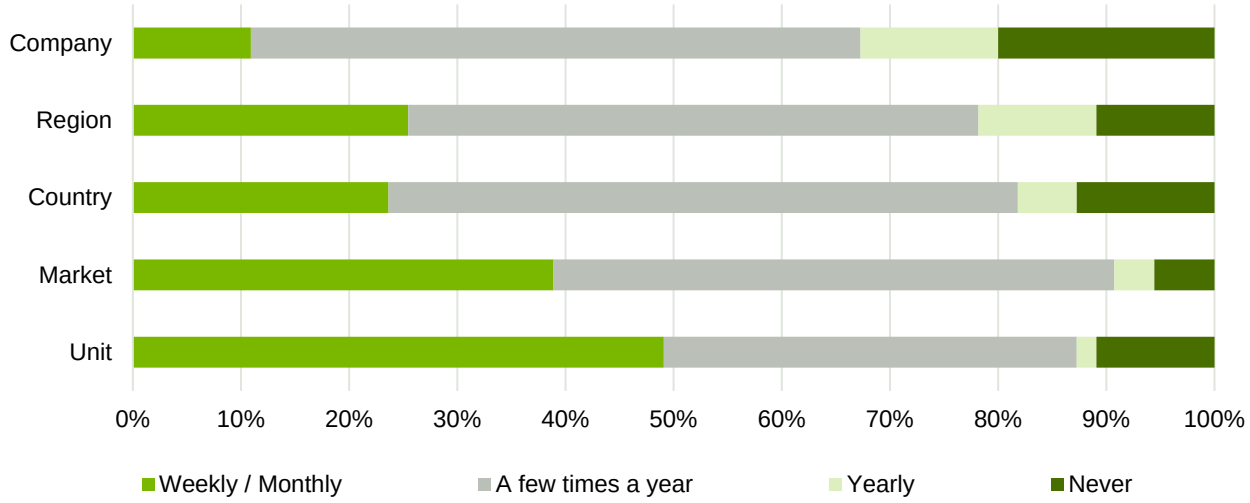

Figure 5-20: Frequency of making intelligence available for strategic decision-making

Figure 5-20 shows that when combining the data in the weekly/monthly and few times a year categories, intelligence is mostly shared to support decisions on markets in which the company operates. This is followed by units and then countries. It is noted that information that can support the company is shared least frequently or not at all.

5.2.3.5.4 Question 36: How well does the company cope with changes in the business environment?

Table 5-32: Ability of the company to cope with changes in the business environment

Response option	Response count	Response percentage
Above average	12	21.8 %
Average	33	60.0 %
Below average	6	10.9 %
Don't know	4	7.3 %
Answered question	55	
Skipped question	21	

Table 5-32 shows that when asked how well the company copes with changes in the business environment, 60% of respondents are of the opinion that its ability is average, 21.8% above average, 10.9% below average and 7.30% do not know. Taking into consideration that the company operates in a highly competitive market (Table 5-33), this is concerning and something the company should consider changing.

5.2.3.5.5 Question 37: How intense do you believe competition is in your business environment?

Table 5-33: Intensity of competition in the business environment

Response option	Response count	Response percentage
Very intense	40	71.40%
Intense	16	28.60%
Not intense	0	0.00%
Don't know	0	0.00%
Answered question	56	
Skipped question	20	

One of the main functions of the successful use of competitive intelligence is staying ahead of the competition. The data in Table 5-33 shows that the company believes that competition in the business environment is very intense, as stated by 71.40% of respondents, while 28.60% believe it is intense. None of the respondents believe competition is not intense or does not know the intensity.

5.2.3.5.6 Question 38: Can you think of any situation(s) where you felt that you were 'blindsided' by a market event affecting the company?

Table 5-34: Respondents feeling blindsided by a market event

Response option	Response count	Response percentage
Yes	21	38.20%
No	22	40.00%
Don't know	12	21.80%
Answered question	55	
Skipped question	21	

Table 5-34 shows that according to 40.00% of respondents, there has not been any situation(s) where they felt blindsided by a market event affecting the company. This is in contrast with 38.20% of respondents who state that they have felt blindsided and 21.80% who do not know.

As part of the question, respondents were asked to explain how the company could have prevented being blindsided if that was the case. On investigation of the responses, it became clear that the majority of respondents are of the opinion that better intelligence might have reduced the effect.

5.2.3.5.7 Question 39: Does the company have a strategy in place to anticipate and manage the impact of external market factors?

Table 5-35: Strategy for anticipating and managing the impact of external market factors

Response option	Response count	Response percentage
Yes	28	50.00%
No	12	21.40%
Don't know	16	28.60%
Answered question	56	
Skipped question	20	

When it comes to having a strategy in place for anticipating and managing the impact of external market factors, 50% of respondents state that the company has such a strategy in place, while 28.60% do not know if this is the case and 21.40% are of the opinion that there is no strategy in place (Table 5-35).

5.2.3.5.8 Question 40: How often do the areas below adapt/change their respective strategies based on competitive intelligence received?

Table 5-36: Frequency of adapting/changing strategy based on competitive intelligence received

Response option	Always	Regularly	Almost never	Never	Don't know	Response count
Unit	6	32	7	3	8	56
Market	3	36	7	2	8	56
Country	1	31	14	2	8	56
Region	1	32	13	1	9	56
Company	1	33	10	1	11	56
					Answered question	56
					Skipped question	20

The data in Table 5-36 shows the majority of respondents, 57.14%, think that the business units of the company regularly adapt/change their strategy based on intelligence received, while 14.29% do not know if this happens, 12.50% think it almost never happens, 10.71% think it always happens and 5.36% that it never happens.

Based on intelligence received, market strategies seem to be adapted/changed most frequently in the company, as 64.29% of respondents estimate that it happens regularly, while 14.29% do not know, 12.50% think it almost never happens, 5.36% are of the opinion that it always happens and 3.57% that it never happens. This data aligns with the findings in Figure 5-20, where intelligence is mostly shared to support decisions concerning markets.

Country strategies are thought to be regularly updated by 55.36% of respondents, almost never by 25.00%, never by 3.57% and always by 1.79%, whereas 14.27% of respondents do not know if this happens.

The strategies of the respective regions in which the company operates are regularly adapted/changed, according to 57.14% of respondents. This is followed by 23.21% who think it almost never happens, 16.07% who do not know, 1.79% who are of the opinion it always happens and 1.79% who believe that it never happens.

Most of the respondents, 58.93%, believe that company strategy is regularly changed based on intelligence received, 19.64% do not know, 17.86% think it almost never happens, 1.79% consider it always happens and 1.79% never. The relatively high number of respondents who do not know if company strategy is regularly changed based on intelligence received is noted.

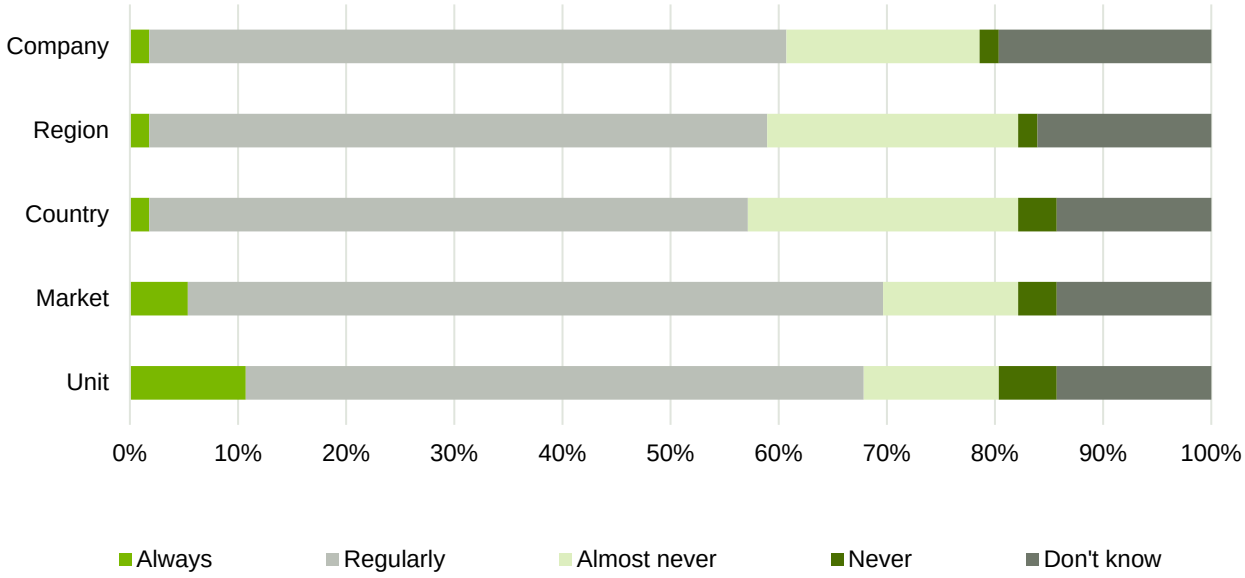

Figure 5-21: Frequency of adapting/changing strategy based on competitive intelligence received

Figure 5-21 shows that when the data in the always and regularly categories are combined, market strategies are most frequently adapted in the company. This is followed by those of units and the company. Interestingly, Figure 5-20 shows that intelligence to support decision-making is most often shared within markets and units, and the link between the sharing of intelligence and the resulting change in strategy is noted.

5.2.3.6 Link between competitive intelligence and innovation

In this sub section, the link between competitive intelligence and innovation in the company will be investigated. Specific attention will be paid to the importance of innovation for success of specific areas in the company and the company itself and the methods for continual sharing and re-use of information to cultivate innovation will be investigated.

5.2.3.6.1 Question 41: How important is innovation to the success of the company?

Table 5-37 Importance of innovation for the success of the company

Response option	Response count	Response percentage
Not important	0	0.00%
Somewhat important	1	1.80%
Important	1	1.80%
Very important	16	28.60%
Essential	38	67.90%
Don't know	0	0.00%
Answered question	56	
Skipped question	20	

It is positive to note that the majority of respondents, 67.90%, consider innovation essential for the success of the company (Table 5-37). This is followed by 28.60% who think it very important, 1.80% somewhat important and 1.80% important. None of the respondents feels that it is not important or does not know if innovation is important for the success of the company.

5.2.3.6.2 Question 42: How important is innovation in the following areas?

Table 5-38: Importance of innovation in different areas of business

Response option	Not important	Somewhat important	Important	Very important	Essential	Response count
Company	0	1	8	22	25	56
Process	0	1	15	17	23	56
Service offering	0	0	3	16	37	56
Product	0	1	7	19	29	56
					Answered question	56
					Skipped question	20

The data in Table 5-38 shows innovation in the company is deemed essential by 44.64% of respondents, followed by 39.29% who think it very important, 14.29% who view it as important and 1.79% as somewhat important. None of the respondents is of the opinion that innovation is not important from a company perspective.

Innovation in terms of process is thought to be essential by 41.07% of respondents, very important by 30.36%, important by 28.79% and somewhat important by 1.79%. None of the respondents thinks that it is not important.

In terms of service offering, innovation is most important to the company, as 66.07% of respondents consider it essential. This is followed by 28.57% who deem it very important and 5.36% who view it as important. None of the respondents thinks that innovation is somewhat important or not important when considering service offering.

When it comes to products, 51.79% of respondents are of the opinion that innovation is essential, 33.93% believe it is very important, 12.50% important and 1.79% somewhat important. No respondent deem it not important.

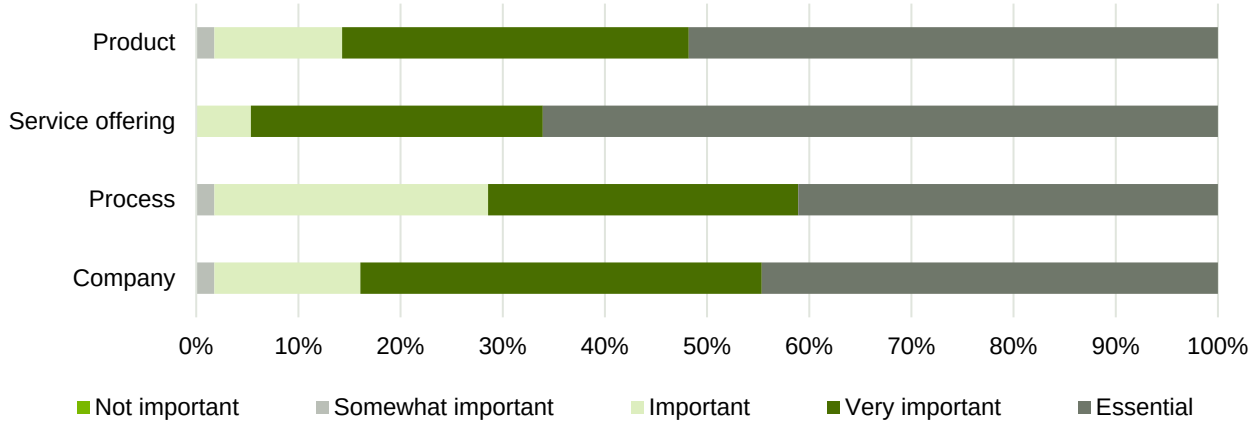

Figure 5-22: Importance of innovation in different business areas

When looking at the combined data in the essential and very important categories (Figure 5-22), it is clear that innovation is regarded as most important as part of the service offering in the company. This is followed by product, company and lastly, process. The fact that innovation relating to service offering is most important is logical, as the service offering of the company is one of the things than can differentiate it from its competitors.

5.2.3.6.3 Question 43: How can we continually share and re-use knowledge within the company to enable innovation?

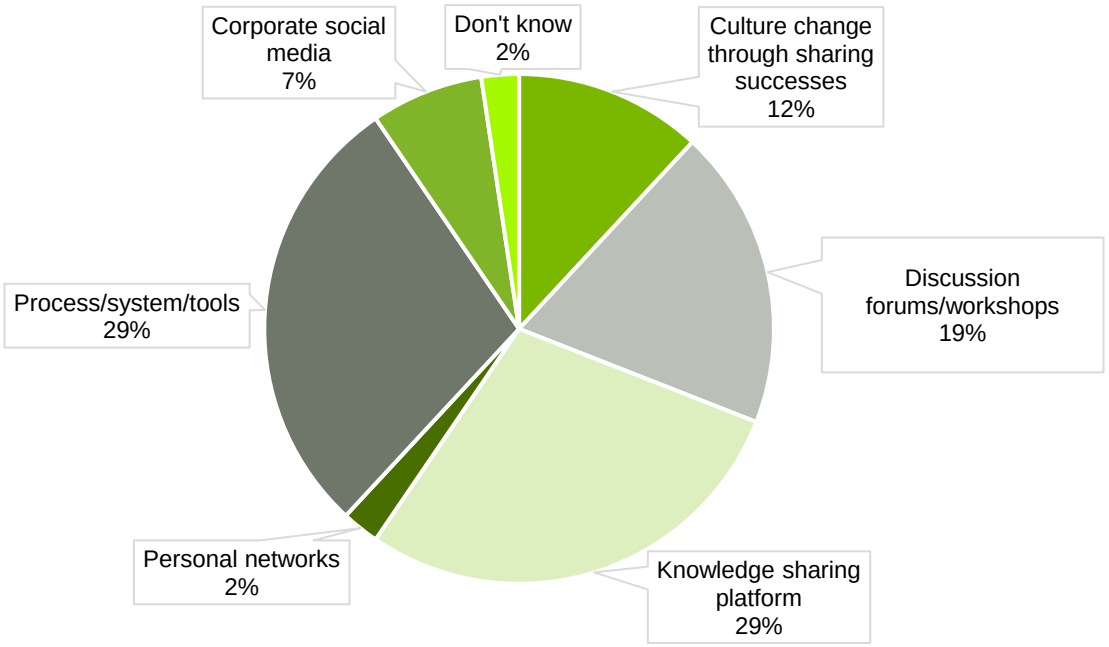

Figure 5-23: Suggested ways to share and re-use knowledge within the company to enable innovation

Nonaka (1994, pp. 14-15) states that innovation is produced by one part of the company, which in turn creates a stream of related information and knowledge, triggering changes in the company's wider knowledge systems. To this open question about suggested ways to share and

re-use knowledge in the company to enable innovation, 29% of respondents replied that a more formalised process/system(s)/tools would ensure this, 29% cited a knowledge-sharing platform, 19% suggested more regular discussion forums/workshops such as the Exemplar forum and 12% were of the opinion that sharing successes where innovation was involved would build a culture of innovation and ensure reuse of knowledge (Figure 5-23). This was followed by 7% who stated that corporate social media such as Yammer works well in sharing information, 2% who preferred personal networks and 2% who did not know.

The relationship between the importance of a process, system and/or tools to share knowledge and enable innovation (Figure 5-23), the availability of centralised information and the creation of an intelligence database (Figure 5-18) to influence competitive intelligence awareness and culture and the need for a system and/or process to store and share information (Figure 5-11) is noted.

5.2.3.6.4 Question 44: How can innovation be cultivated within the company?

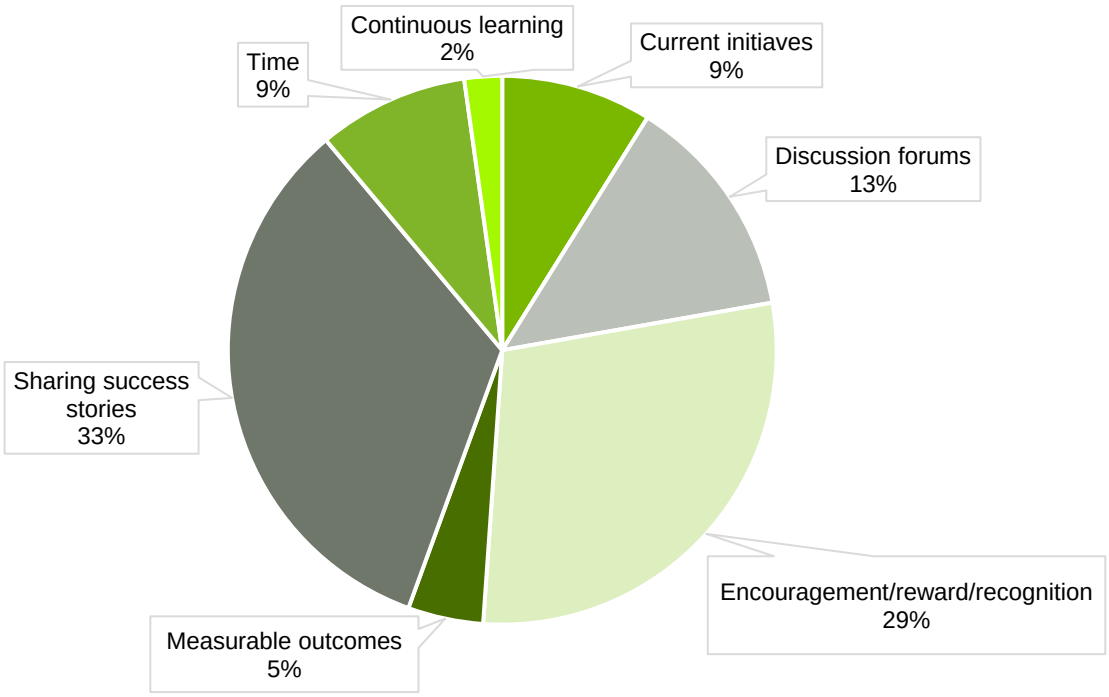

Figure 5-24: Suggested ways to cultivate innovation within the company

In response to this open question about suggested ways to cultivate innovation in the company, Figure 5-24 shows that 33% of respondents stated that creating awareness through sharing success stories would cultivate a culture of innovation, while 29% thought that increased encouragement from leadership, reward and/or recognition would be the answer. Following this, 13% considered discussion groups/forums as a way to encourage innovation, 9% cited making time available for creative thinking as important and a further 9% thought that current initiatives

such as the i40 and Oxygen tank should be harnessed and continued. A further 5% of respondents stated that the benefits of innovation would only be realised once successful outcomes were measurable and tangible and 2% were of the opinion that continuous learning and knowledge sharing was a viable way to cultivate innovation.

The focus has been placed on innovation in the company for the past two years and various innovation-related initiatives have been launched as a result. It is therefore interesting to note that a relatively small number of respondents mentions current initiatives as the preferred way to cultivate innovation in the company. Figure 5-24 shows that the majority of respondents feel that sharing success stories and encouragement, reward and/or recognition would be good methods of cultivating innovation in the company.

5.2.3.7 Implementation of competitive intelligence across borders

In this sub section, the implementation of competitive intelligence across borders will be investigated, with specific focus on the need for disciplined focus in terms of competitive intelligence activities, the impact of regional differences in terms of collection and distribution of intelligence and the factors that influence cross-cultural intelligence efforts.

5.2.3.7.1 Q45: Does the multinational nature of the company increase the need for disciplined focus on competitive intelligence?

Table 5-39: Need for disciplined focus on competitive intelligence across borders

Response option	Response count	Response percentage
Yes	41	75.90%
No	4	7.40%
Don't know	9	16.70%
Answered question	54	
Skipped question	22	

The SCIP (2013) states that globalisation of business is emphasising the need for disciplined focus on competitive and market intelligence insights. This is confirmed by the data in Table 5-39, where, when considering the need for disciplined focus on competitive intelligence in view of its multinational nature, 75.90% of the respondents agree that there is an increased need in the company; 16.70% of respondents state that they do not know if this is the case and 7.40% disagree.

Respondents had the opportunity to provide further details on their answer in this question and from studying the responses, the perception that the multi-regional nature of the company complicates the competitive intelligence effort is clear. To harness its full potential, a more formal

intelligence function, system or process should be implemented. The data in Figure 5-11, Figure 5-18 and Figure 5-23 and accompanying conclusions support this finding.

5.2.3.7.2 Question 46: Does regional differences have an influence on competitive intelligence?

Table 5-40: Influence of regional differences on competitive intelligence

Response option	Response count	Response percentage
Yes	41	75.90%
No	5	9.30%
Don't know	8	14.80%
Answered question	54	
Skipped question	22	

When asked if regional differences have an influence on competitive intelligence**,** 75.90% of respondents agree that it does, while 14.80% disagree and 9.30% do not know if this is the case (Table 5-40). When studying the comments respondents provided, it became clear that there were very specific information and intelligence needs and practices per country and region. This supports the statement by Glitman (2013, p. 2) that the challenge of global competitive intelligence lies in adjusting expectations to match local conditions. However, respondents also stated that relevant intelligence must be shared across regions to harness its full potential.

5.2.3.7.3 Question 47: To what extent does the following influence the gathering and distribution of intelligence across regions?

Table 5-41: Factors influencing the gathering and distribution of intelligence across regions

Response option	Not at all	Very little	Somewhat	Great extent	Very great extent	Don't know	Response count
Availability of information	1	2	5	19	25	1	53
Business environment	0	6	15	20	10	2	53
Culture and customs	1	5	15	19	10	3	53
Economy	4	10	16	18	4	1	53
Ethics	6	10	15	12	7	3	53
Language	5	10	15	16	6	1	53
Legislation	6	15	14	10	6	2	53
Politics	6	11	15	15	3	3	53
Social	5	7	18	16	3	4	53

Response option	Not at all	Very little	Somewhat	Great extent	Very great extent	Don't know	Response count
Technology	1	7	15	15	14	1	53
						Answered question	53
						Skipped question	23

The availability of information influences the gathering and distribution of intelligence across regions to a very great extent, according to 47.17% of respondents (Table 5-41). This is followed by 35.85% who consider the influence to be great, 9.43% who think it has some influence, 3.77% who think it has very little, 1.89% who deem it to have no influence and 1.89% who do not know.

The difference in business environment(s) across regions influences information gathering and distribution to a great extent, according to 37.74% of respondents, somewhat according to 28.30%, to a very great extent according to 18.87%, very little as stated by 11.32% and 3.77% do not know. None of the respondents thinks that the business environment has no influence.

When it comes to culture and customs, 35.85% of respondents consider this aspect to have a great influence, followed by 28.30% who state that it has somewhat of an influence, 18.87% who think its influence is to a very great extent, 9.43% who observe very little influence and 5.66% who do not know.

Differences in economy influence intelligence gathering and distribution to a great extent according to 33.96% of respondents, somewhat according to 30.19%, very little according to 18.87% and to a very great extent according to 7.55%, whereas 7.55% think that the economy has no influence and 1.89% do not know.

Based on the opinion of 28.30% of respondents, differences in ethics have somewhat of an influence on intelligence gathering and distribution across regions, but 22.64% of respondents differ from this, stating that the influence of ethics is great, while 18.87% deem it to be very little and 13.21% very great. The respondents who think that ethics has no influence comprise 11.32% of the sample and 5.66% do not know.

The language in the region influences intelligence efforts to a great extent, according to 30.19% of respondents, while 28.30% deem it to have somewhat of an influence, 18.87% very little and 11.32% a great influence. Those who consider it not to have any influence comprise 9.43% of the respondents and 1.89% do not know.

The legal environment has very little influence, according to 28.30% of respondents and somewhat of an influence, according to 26.42%. Following this, 18.87% consider local legislation to influence intelligence efforts to a great extent, 11.32% to a very great extent and 11.32% not at all, while 3.77% of respondents do not know if this has an influence.

The political environment in a region influences intelligence activities to a great extent, according to 28.30% of respondents and somewhat, according to 28.30%, while 20.75% are of the opinion that this environment has very little influence and 11.32% think it has none at all. This is followed by 5.66% of respondents who consider it to have a very great influence and 5.66% who do not know.

Differing social factors have somewhat of an influence on intelligence collection and distribution, according to 33.96% of respondents and 30.19% believe that it influences these processes to a great extent. Those who believe that social factors have very little influence form 13.21% of the sample, 9.43% are of the opinion that it has no influence, 7.55% do not know and 5.66% consider social factors to have a very great influence.

Technology influences intelligence efforts to a great extent, according to 28.30% of respondents and somewhat, according to 28.30%. This is followed by 26.42% who believe it has a very great extent of influence and 13.21% who believe its influence is very little, against 1.89% who consider technology to have no influence and 1.89% who do not know.

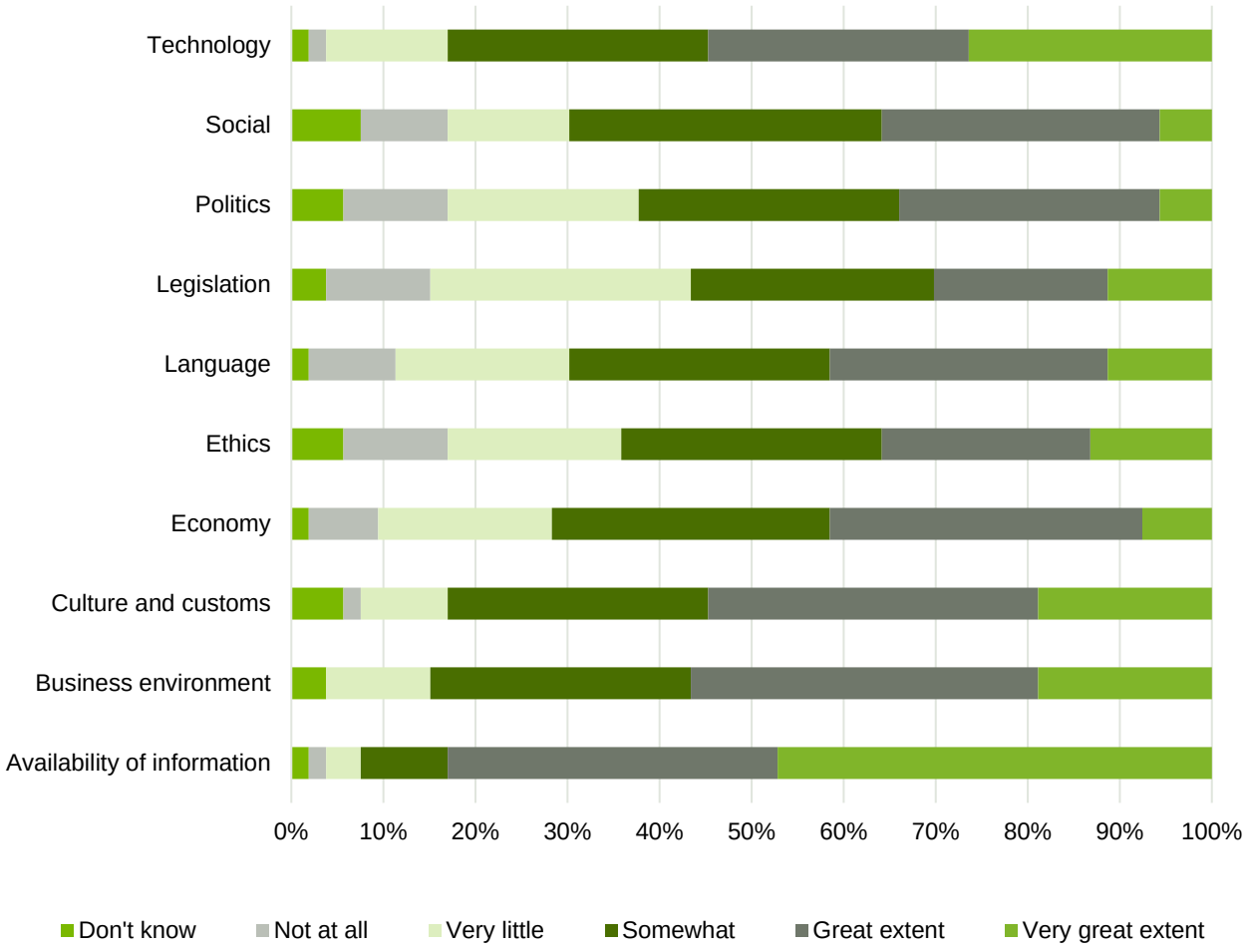

Figure 5-25: Extent to which factors influence gathering and distribution of intelligence across regions

Glitman (2013, p. 1) states that for competitive intelligence to go multi-regional, the legal environment, the cultural and ethical situation and the availability of information are of great importance to companies. When considering the data in the very great and great extent categories (Figure 5-25), it is clear that the company regards the availability of information as the main influencer of the successful gathering and distribution of intelligence, followed by the business environment, culture and customs and technology. This supports the statement by Glitman on the importance of the availability of information and understanding local culture and customs, but contradicts it in terms of the importance of the business environment, technology, legislation and ethics. It is, in fact, surprising to note that in contrast with Glitman (2013, p. 1) and Adidam, Gajre and Shubhra (2009, p. 667), the company rates legislation and ethics as the least important influencers of gathering and distributing intelligence across regions.

5.2.3.7.4 Question 48: Does the company have in-depth knowledge and understanding of the countries where it has offices and projects?

Table 5-42: In-depth knowledge and understanding of the countries where the company operates

Response option	Not at all	Very little	Somewhat	Definitely	Extensively	Don't know	Response count
Offices	0	0	12	24	10	6	52
Projects	0	2	14	25	4	8	53
						Answered question	53
						Skipped question	23

According to Table 5-42, 46.15% of respondents think that the company has a definite understanding of the countries where it has offices, followed by 23.08% who believe the company has somewhat of an understanding, 19.23% who believe the understanding to be extensive and 11.54% who do not know. None of the respondents considers the company to have no or very little in-depth knowledge and understanding of these countries.

On the other hand, 47.17% of respondents believe that the company definitely has knowledge and understanding of countries where it has projects, while 26.42% consider it to have somewhat of an understanding and 15.09% do not know, whereas 7.55% believe the company's understanding to be extensive and 3.77% very little. None of the respondents is of the opinion that the company does not have knowledge and understanding of the countries where it has projects.

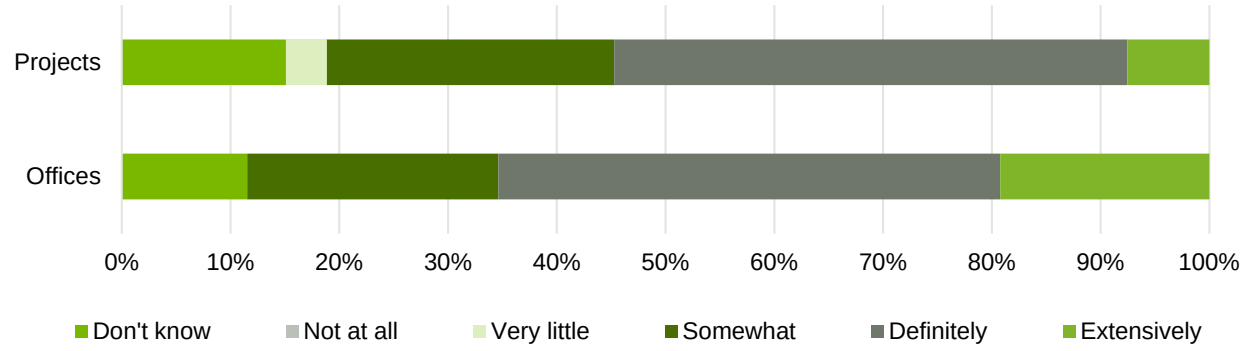

Figure 5-26: Level of in-depth knowledge and understanding of the countries where the company operates

Figure 5-26 shows that when taking the combined data in the extensively and definitely categories into account, the company has a more in-depth understanding of the countries where it has offices than of those where it only has a project footprint. This is understandable, as having local employees offers the company insight into the cultural and other dynamics affecting the society (Glitman, 2013, p. 2).

5.2.3.7.5 Question 49: Is this knowledge shared within the company?

Table 5-43: Sharing of information on countries where the company has offices/projects

Response option	Response count	Response percentage
Yes	27	50.90%
No	8	15.10%
Don't know	18	34.00%
Answered question	53	
Skipped question	23	

Adidam, Gajre and Shubhra (2009, p. 678) state that in order for companies doing international business to beat the competition in today's highly globalised economies, they must have cross-cultural awareness engrained in their competitive intelligence efforts. Table 5-43 shows that according to 50.90% of respondents, the company shares its knowledge and understanding of the countries where it operates. This is in contrast with the 34.00% of respondents who do not know if such information is shared and the 15.10% who think it is not shared.

The divide between the responses is quite interesting, and on studying the additional comments, it becomes clear that country/regional knowledge and information are not widely available or shared on a 'need to know' basis through personal interaction. Respondents furthermore state that information sharing is better in certain areas of the company than others. This correlates with earlier findings on the collection and distribution of information (Table 5-23, Table 5-26, Table 5-27).

5.2.3.7.6 Question 50: To what extent will the following actions positively influence cross-cultural intelligence efforts?

Table 5-44: Positive influencers of cross-cultural intelligence efforts

Response option	Not at all	Very little	Somewhat	Definitely	Extensively	Don't know	Response count
Awareness of the cultural, social and economic differences between countries	0	4	7	25	17	0	53
Assigning cultural leaders knowledgeable about different cultures and fluent in local language(s)	0	3	14	24	11	1	53
Organising cross-cultural competitive intelligence structures	1	7	14	22	8	1	53
Implementing a cross-cultural competitive intelligence programme	0	4	13	23	9	3	52
						Answered question	53
						Skipped question	23

Awareness of the cultural, social and economic differences between countries will definitely have a positive influence on cross-cultural intelligence efforts, according to 47.17% of respondents, while 32.08% think it will have an extensive influence, 13.21% believe that this awareness will have somewhat of a positive influence and 7.55% think it will have very little influence. None of the respondents thinks that it will not have any influence or does not know (Table 5-44).

According to 45.28% of respondents, assigning cultural leaders fluent in local language(s) will have a definite influence on the successful implementation of cross-cultural intelligence efforts. This is followed by 26.42% of respondents who are of the opinion that cultural leaders will have somewhat of an influence, 20.75% who think it will influence efforts extensively, 5.66% who deem the influence very little and 1.89% who do not know. None of the respondents thinks that cultural leaders will not have a positive influence.

When it comes to organising cross-cultural competitive intelligence structures, 41.51% of respondents believe that the company will definitely benefit, 26.42% somewhat, 15.09% extensively, 13.21% very little and 1.89% not at all. Another 1.89% of respondents do not know if such an intelligence structure will have a positive influence.

Implementing a cross-cultural competitive intelligence programme will have a definite positive influence on intelligence efforts, according to 44.23% of respondents, while 25.00% believe it will have some influence, 17.31% think the influence will be extensive, 7.69% deem it very little and 5.77% do not know if it will be beneficial.

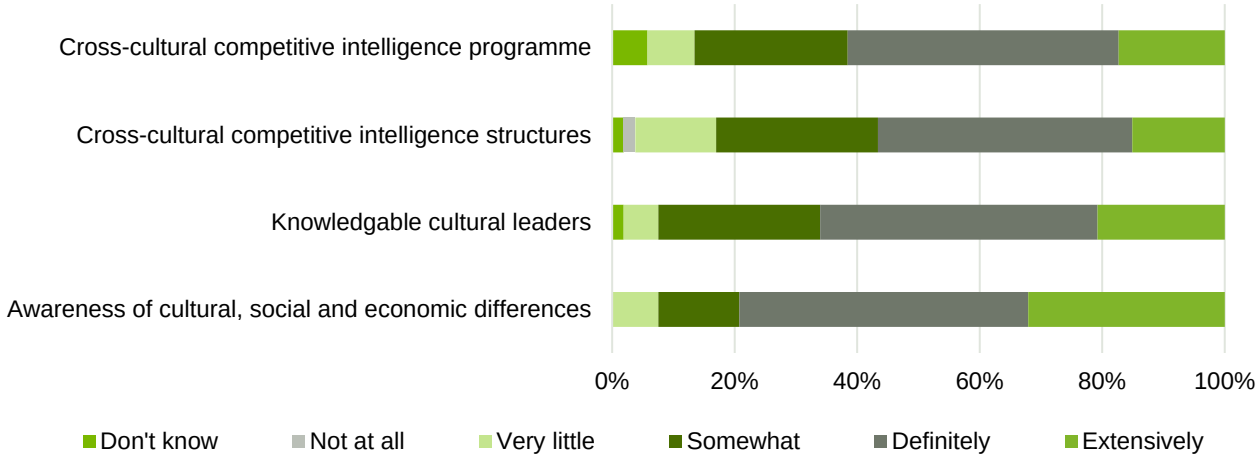

Figure 5-27: Extent to which initiatives will positively influence cross-cultural intelligence efforts

The challenges concerning cross-cultural implementation of competitive intelligence activities may actually diminish competitiveness, instead of enhancing it, and companies must understand the cultural context of best practices, both in the originating and target countries, to overcome these challenges (Căpăţînă & Vanderlinden, 2012, p. 369). Figure 5-27 shows that when taking the combined data in the extensively and definitely categories into account, awareness of the cultural, social and economic differences between countries is seen to be the most important influencer in terms of implementing cross-cultural competitive intelligence, while assigning cultural leaders is regarded as the second most important. This aligns with the five-step process for developing a cross-cultural competitive intelligence programme developed by Adidam, Gajre and Shubhra (2009, p. 677), as creating awareness is the first step in the process and assigning cultural leaders the second.

5.3 Summary

In this chapter, an overview of the consulting engineering landscape was described to contextualise the results of the study.

The results of the survey were combined, analysed using a combination of Likert scales, interpreted and presented against existing literature. The chapter furthermore presented the results of the study that tested the main research problem and the sub-problem of the types of information gathered, stored and distributed within the company as part of competitive intelligence activities and its importance to employees.

The main findings in each of the questions were the following:

- Attracting and retaining highly qualified employees is a strategy of the company
- Information gathering and collection are done informally, as a large number of the respondents is not aware of the formal information function
- The economic environment, politics and the industry are the external market factors monitored most frequently
- Information on clients is collected and/or distributed most frequently, while information on competitors is collected and/or distributed least of all
- The lack of a formal intelligence function/process is seen as the major contributor to information not being shared
- Information on projects (of clients and/or competitors), expertise required, movements of staff, organisational changes and general/industry news is collected most often
- Personal networks, in the form of employees, peers and partners/subcontractors, are the most important sources of information
- The service offering of competitors, client strategy and the service offering and commercial information of partners/related industries are seen as important information
- Information seen as important is most often stored in Word documents via a platform that enables sharing, such as a shared network drive/document management system
- There is an overwhelming need for a system and/or process to enable the storing of information and there is a perception that a central repository will improve information sharing
- Win/loss analysis is seen as the most important information analysis tool/technique within the company
- The information the company shares and analyses most often is information about clients
- When considering the usefulness of information, accuracy, clarity and relevance are the three most important attributes
- Early warning of future opportunities, disruptions and competitive service offerings and the development of strategies that will drive sustainable advantage are seen as the most important factors for gaining a competitive advantage
- There is disagreement about the current level of awareness of the benefits and culture of competitive intelligence in the company
- The company is considered to have a weak competitive intelligence culture and it is thought that encouraging regular discussions and centralised information can improve this

- Senior and top management supports intelligence gathering and distribution and there is, to a certain extent, visible use of the information
- Financial reward and/or revenue growth and senior management support are seen as the most important motivators for sharing competitive information
- The company views competitive intelligence as more important for gaining a competitive advantage than for effective decision-making, even though competitive intelligence is seen to have a positive influence on decision-making
- Intelligence is mostly shared to support decisions on markets, followed by units and then countries
- The company's ability to cope with change in the very competitive business environment is average
- There is a discrepancy in the results about whether the company has a strategy in place to anticipate and manage the impact of market events
- Market strategies are most frequently adapted in the company, followed by those of units and the company itself
- Innovation is seen as essential for the success of the company, with particular focus on service offering and product
- To enable innovation, a more formalised process, system(s), tools and knowledge-sharing platform are the preferred methods for the sharing and re-use of knowledge
- A culture of innovation can be cultivated through sharing success stories, increased encouragement from leadership and reward and/or recognition
- The multi-regional nature of the company complicates the competitive intelligence effort, as regional differences have an influence on competitive intelligence
- The availability of information is seen to be the greatest influencer of the successful gathering and distribution of intelligence across regions
- The company has a more in-depth understanding of the countries where it has offices than where it only has a project footprint. This information is, however, not widely available and could be shared more extensively.
- Awareness of the cultural, social and economic differences between countries is seen as the most important influencer of cross-cultural competitive intelligence efforts.

In the following chapter, a summary of the study will be given followed by the major conclusions from the main findings described above. Finally, a number of recommendations will be made for possible implementation by the company under study.

6 Chapter six: Summary, conclusions and recommendations

"The supreme art of war is to subdue the enemy without fighting." - Sun Tzu

6.1 Introduction

In the previous chapter, an overview of the consulting engineering landscape was given. This was followed by a discussion of the results of the empirical study.

This chapter contains a summary of the entire study, major conclusions based on the findings of the study, recommendations for possible implementation by the company under study, research limitations and suggestions on possible future research.

6.2 Summary and conclusions

The aim of the study was to determine how competitive intelligence is implemented at a multinational consulting engineering company. To answer this question, the following sub-problems were addressed:

- What is competitive intelligence?
- What influence do corporate culture and globalisation have on the successful implementation of competitive intelligence?
- To what extent are innovation and business strategy linked to competitive intelligence?
- What types of information are gathered, stored and distributed within the company as part of competitive intelligence activities and how important is this information to employees?

Chapter two investigated the nature of competitive intelligence to solve the first sub-problem, "What is competitive intelligence?" Some of the models available in literature on the competitive intelligence process, the factors that influence the usefulness of intelligence and attributes that can be used to measure this usefulness were investigated. Following this, the need for competitive intelligence in companies was investigated and the challenges were discussed. It was noted that in order to be successful, companies should consider practical solutions to make competitive intelligence functions work and in turn, the competitive intelligence function should add value by investigating ways in which the company can differentiate itself. Lastly, some of the analytical tools/techniques for the implementation of competitive intelligence were explored and it was concluded that, even though not all the tools and techniques work equally well, companies

should select the tool(s)/technique(s) or a combination thereof that will make implementation practical in their own company.

Chapter three attempted to solve two sub-problems, namely “What influence do corporate culture and globalisation have on successful implementation of competitive intelligence?” and “To what extent are innovation and business strategy linked to competitive intelligence?” To solve the first sub-problem in this chapter, the need for establishing a competitive intelligence culture was examined by explaining the concept of corporate culture and examining the ways to foster a competitive intelligence culture and community. It was noted that the competitive intelligence culture within a company could only be enhanced if competitive intelligence is integrated and embedded throughout the company and it was concluded that competitive intelligence in companies is closely related to an organisational culture of knowledge sharing/collaboration. Following this, the implementation of competitive intelligence across borders was explored. It was concluded that diverse cultural factors affect cross-cultural and cross-border competitive intelligence and companies need insight into the cultural dynamics in a society for competitive intelligence efforts to succeed.

To solve the second sub-problem in this chapter, the relationship between competitive intelligence and innovation was studied. It was established that innovation is seen as the single most important building block of competitive advantage, which is closely related to an organisational culture of knowledge sharing/collaboration. Following this, the relationship between competitive intelligence and business strategy was discussed with specific focus on the aspects important to creating an intelligence function with a strategic focus. It was established that support by key decision-makers for intelligence used in strategy formulation and implementation is crucial for gaining and maintaining a competitive advantage.

In Chapter four, the research methodology through which the main research problem was tested was presented. It was determined that to achieve the study objectives, a mixed method approach would be followed in the form of a case study combined with a survey. The research design was developed and the three main phases, i.e. study preparation, study execution and data analysis and interpretation, were identified. The remainder of the chapter was spent on an in-depth discussion of the study preparation and on the most critical part of the study, the execution, where the population, i.e. the senior and executive management of the company, and 122 research participants were identified and the survey questionnaire was developed and administered.

The focus of Chapter five was the last phase of the research design, i.e. analysis and interpretation of the results. To contextualise the results, the first part of the chapter was dedicated to background on the consulting engineering industry. Following that, the results of the survey were combined, analysed and interpreted to solve the sub-problem of the types of

information gathered, stored and distributed within the company and its importance to employees, as well as the main research problem. The conclusive findings and resulting recommendations are presented below and in the following section:

- The existing information function of the company, in the form of the Knowledge and Information Centre, is not used as part of competitive intelligence activities. These activities are mostly informal and implemented with varying degrees of success in selected areas throughout the company. The disconnectedness of the Knowledge and Information Centre highlights the need for a more streamlined approach to knowledge and information sharing within the company.
- Based on the results of a number of questions, the company views information on clients as most important, as this information is monitored, collected, distributed and analysed most often. The business strategy is a client-centric one, and the importance of client information confirms the link between competitive intelligence and business strategy. It should, however, be noted that competitive advantage is not only gained through in-depth knowledge of clients, but rather through a holistic understanding of clients, competitors, partners/companies in related industries and external market factors. To get this holistic understanding, more importance should be placed on intelligence about clients, competitors, partners/companies in related industries and external market factors.
- The company relies heavily on people, i.e. employees, a network of peers, etc. as sources of information. This complicates knowledge and information sharing, as the multinational nature of the company does not always allow personal interaction and might be a contributing factor to the need for a more formalised process, centralised information repository/system and/or tools as presented later in this section.
- War gaming is not seen as an important competitive intelligence tool, even though the industry is experiencing a number of disruptions, such as new technologies, a changing competitive landscape and the entry of new competitors. The resulting lack of forewarning might be a reason the company is perceived as average in terms of its ability to cope with change in the very competitive business environment.
- Comments and conclusions in response to a number of questions highlight the weak knowledge-sharing culture. The outcome of this weak culture is the varying degrees of successful and unsuccessful information sharing implemented in selected areas of the company. This silo effect is further complicated by the multinational nature of the company.
- There is a significant need for a more formalised process, centralised information repository/system and/or tools that will support information sharing in the company. It must be noted, however, that the benefit of any process, system or tool lies in its use, and a

major challenge will be to improve the weak information-sharing culture before/in parallel with implementation of such a process/system or tool. As the company is already experiencing a number of disruptions, the change needed to improve the weak information-sharing culture might not be seen as important enough to implement in the short to medium term.

- Although there seems to be some visible awareness, support and use of intelligence by the senior and top management of the company, it is not on a sufficient level to drive a knowledge-sharing culture and support competitive intelligence efforts.
- The company views competitive intelligence as essential for gaining a competitive advantage, but even though competition in the market is very intense, the company is perceived as average when it comes to responding to changes in the business environment. This is a further illustration of the lack of an information- and knowledge-sharing culture and is underpinned by the need for a more formalised process, centralised information system and/or tools.
- It is encouraging to note that the company believes competitive intelligence has a positive influence on decision-making and that company, region, country, market and unit strategies are updated regularly, based on intelligence received.
- The company views innovation as essential to its survival and a number of initiatives has already been launched to cultivate and grow this strategy in the company. These current initiatives are, however, not seen as the preferred ways to cultivate innovation. The two ways suggested by the majority of the company to cultivate innovation are sharing success stories and encouragement, reward and/or recognition. Possible ways to implement these suggestions should be investigated by the company.
- The multinational nature of the company and regional differences in terms of culture, legislation, language, etc. significantly increase the need for a more disciplined focus on competitive intelligence. Possible ways to implement such a focus should be investigated.

In attempting to solve the main problem statement of how competitive intelligence is implemented in the consulting engineering company, it was concluded that competitive intelligence is applied with relative success in some areas of the company, but that a more formalised approach will be beneficial.

6.3 Recommendations

Based on the literature review and findings of the research, five recommendations were identified as the most important for the company to consider. These recommendations are not listed in any specific order of priority and are intended to improve the competitive intelligence function in the company. Implementation of some of the recommendations can be done in parallel, as they overlap in certain areas.

6.3.1 Expand service offering of the Knowledge and Information Centre

The study found that there is insufficient awareness of the existing information function, in the form of the Knowledge and Information Centre, in the company. Discussions with staff of the Knowledge and Information Centre further revealed that they are seldom requested to collect and/or distribute information on clients, competitors, partners/companies in related industries or external market factors.

As Knowledge and Information Centre staff are mostly trained and experienced knowledge workers, the company can, in a relatively short timeframe, benefit from expanding the service offering of this function to include that of competitive information gathering and distribution. As the Knowledge and Information Centres are only located in select major offices of the company, the staff can be supported by an informal network of knowledge workers in all the company locations. Such a network will improve the quality of intelligence, as these individuals will have knowledge of local business culture and practices (Jaworski, Macinnis, & Kohli, 2002, p. 287), ensuring better quality intelligence.

6.3.2 Improve competitive intelligence culture

Establishing a competitive intelligence culture in a company is key to the success of any competitive intelligence effort. To enhance the competitive intelligence culture, competitive intelligence should be integrated throughout the company, embedded in and aligned with the company's infrastructure; it should reflect trends in the industry and be adaptable to change (Viviers, Saayman & Muller, 2005, p. 586).

The results of this study show that the competitive intelligence culture in the company is weak and that information and knowledge are shared with varying degrees of success in select areas of the company. There are many ways to foster a competitive intelligence culture and community (Viviers, Saayman & Muller, 2005, pp. 585-586), and based on the results of the study, the following steps are suggested (Table 5-25; Table 5-28):

- Visible awareness, support and use of intelligence by senior and top management. Over 60% of respondents cited this as an important motivator for sharing knowledge and

competitive intelligence. Visible support and use of intelligence can be implemented easily, but will have to be done continually to embed the culture across the company.

- Encouraging and enabling regular discussions about competitive intelligence and the importance of a learning/knowledge-based culture at meetings.
- Changing the organisational structure to accommodate a central point of information. This central point of information can act as an integrator between the senior and executive management of the company and the Knowledge and Information Centre staff collecting information.
- Creating an intelligence database (also see paragraph 6.3.3)
- Rewarding staff. Results show that the majority of the company sees improved win rates as a key driver for improving financial results. Demonstrating how win rates (which result in improved financial performance) can be improved with competitive intelligence will increase the awareness and sharing of this intelligence. Following this the actual reward, in terms of growth in profitability, will be shared with all staff (through bonuses, salary increases, share allocations), ensuring that the culture is embedded in the company.

Following the suggested steps above will foster a competitive intelligence culture and community, resulting in improved strategy and decision-making.

6.3.3 Implement a process, system and tools

Based on the results of a number of questions, the company needs a more formalised process, system and/or tools to support information and knowledge sharing within the company. The research furthermore shows that information on clients is seen as most important and is monitored, collected, stored, distributed and analysed most often (Table 5-10; Figure 5-3; Table 5-15; Figure 5-10; Table 5-17; Figure 5-11). The company has a client centric strategy based on achieving market differentiation through a disciplined focus on client relationships and providing clients with extraordinary experiences. The successful implementation of this strategy means that competitors will become less important, but that market intelligence about things that affect clients will be of primary importance. Competitive advantage will therefore not only be gained through in-depth knowledge of clients, but also through a complete understanding of other factors influencing the competitive arena i.e. external market factors and partners/companies in related industries.

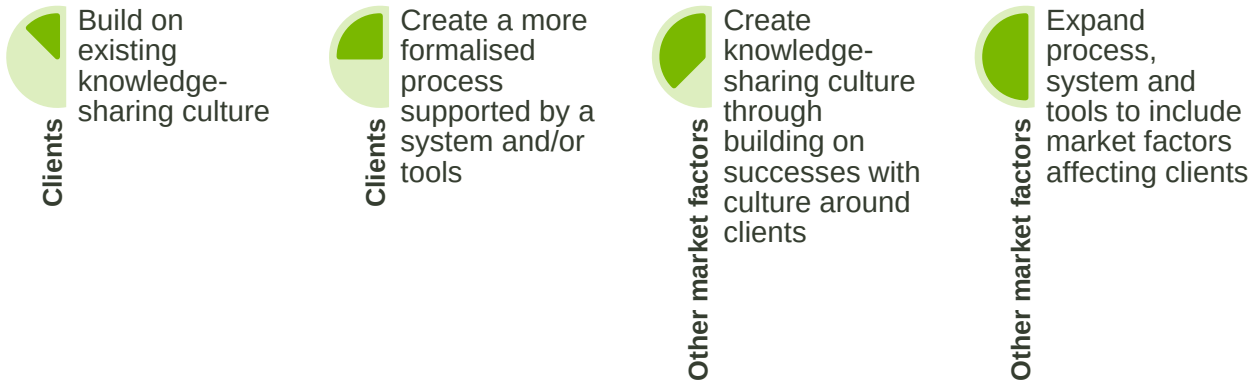

Figure 6-1: Suggested approach for implementation of more formalised process, system and/or tools

A major challenge to the successful implementation of a more formalised process and system or tools is the cultural changes needed to improve knowledge and information sharing. It is therefore suggested that a phased approach be taken. As shown in Figure 6-1, this approach is:

- Using strong leadership to continue and build on the existing knowledge-sharing culture around clients. This is a continuous process and additional time is not needed for this phase.
- Creating a more formalised process around sharing information on clients. This process should be supported by a system and/or tools that will enhance the ability of the company to share and search for current information across all its locations. The company is already in the process of investigating such a system and this phase can be implemented within a relatively short timeframe.
- Almost in parallel with the above phase, a knowledge- and information-sharing culture regarding market factors affecting clients, i.e. external market factors and partners/related industries, should be cultivated. This is a longer-term process and can be done by building and improving on the principles used to create the client culture.
- Once the culture regarding market factors affecting clients has been embedded across the company, the process, system and tools created during an earlier phase can be expanded to include these other factors. This will be the last phase of the suggested implementation.

The assumption is that once the last phase has been implemented, the company will have a deeply embedded competitive intelligence culture.

6.3.4 Increase cultural awareness

The research shows that the multinational nature of the company increases the need for disciplined focus on competitive intelligence. In-depth information on the countries and regions where the company operates is also reportedly shared on an ad hoc basis and with differing levels of success.

It has, however, been proved in previous studies that for cross-border competitive intelligence efforts to succeed, the company needs insight into the cultural dynamics affecting the countries and regions where it operates. This insight can be gained through implementation of a cross-cultural intelligence programme following the steps defined by Adidam, Gajre and Shubhra (2009, p. 677):

- Creating awareness of the cultural, social and economic differences between countries. Cultural awareness campaigns can be included in communication on diversity and awareness campaigns can be run on social media and other platforms.
- Assigning cultural leaders knowledgeable about different cultures and fluent in the local language(s). The country managers and in-country staff of the company can play a significant role in this regard and can be included as part of the informal competitive intelligence network in the company (also see paragraph 6.3.1).
- Organising cross-cultural competitive intelligence structures (also see paragraph 6.3.1)
- Learning as much as possible about the industry in the relevant country, keeping the cultural context in which the information was collected in mind. The regional management teams and country managers in the company can play a significant role in this regard and should aim to make in-depth information on the countries more widely accessible within the company.
- Sharing intelligence with decision-makers who are knowledgeable about the challenges of converting information into intelligence in cross-cultural projects. Cultural awareness should be entrenched in the senior and executive management function of the company to ensure that intelligence is interpreted in the cultural context in which it was collected.

6.3.5 Introduce scenario analysis/planning and war gaming

The research shows that the company views war gaming as the least important of the competitive intelligence tools/techniques studied while it views early warning of future opportunities, disruptions and competitive service offerings as essential for gaining a competitive advantage.

This early warning can be obtained through regular scenario analysis, where probable events that may affect the company or its operating environment are identified. Following this, the best

response to these probable events - ranging from best case to worst-case probabilities - can be identified through scenario planning. War gaming can then be used in conjunction with this.

Companies use war gaming as competitive intelligence tool/technique when faced with disruptions such as new technologies in the market, new service offerings of technologies offered by competitors, the entry of new competitors in the market, a changing competitive landscape due to the consolidation of competitors and clients and changes in the macro-environment (Prior, 2009, p. 47). As the larger industry and the company in particular are experiencing a number of these disruptions, the management of the company should consider the implementation of scenario analysis/planning and war gaming to ensure early warning of these disruptions. As war gaming is not an ongoing activity in practice, the intelligence gained from its implementation can be used in conjunction with tools/techniques already used by the company.

6.4 Limitations and areas of future research

The limitations of the study and areas of future research are discussed in the following sub sections.

6.4.1 Limitations

The study had the following limitations:

- The study was restricted to a single multinational consulting engineering company.
- The study did not include other multinational companies in the same industry or companies in the same industry and located in a single country.
- The study did not include companies in other industries
- The outcome of the study does not serve as a recommendation for competitive intelligence implementation in multinational consulting engineering companies, but rather for the improvement of the competitive intelligence function and implementation within the company under study.

6.4.2 Areas of future research

Since this study was restricted to a single multinational consulting engineering company, it would be enlightening to study other multinationals in the same industry to identify differences and/or similarities in the implementation of competitive intelligence.

Future research may also be expanded to study the consulting engineering industry, in a particular country or internationally, to find differences and/or similarities in the implementation of competitive intelligence.

It will furthermore be enlightening to study the differences in implementation of competitive intelligence across regions, specifically regions where there are substantial differences in culture and the availability of, and access to, information i.e. companies based in the West compared to those in the East.

As a follow-up to this study, it would be interesting to investigate the success of competitive intelligence in the company after implementation of the recommendations.

Another topic that can be studied is the influence of competitive intelligence on business strategy in multinational consulting engineering companies in particular and the industry in general.

Competitive intelligence is used by many companies across the world to gain a competitive advantage and to play a future key developmental role, further research is needed into the:

- Influence of corporate culture and globalisation on the successful implementation of competitive intelligence
- Extent to which innovation and business strategy are linked to competitive intelligence
- Types of information gathered, stored and distributed within a company as part of competitive intelligence activities and the importance of this information to employees.

6.5 Summary

This study confirmed that competitive intelligence supports the needs of companies to stay ahead of the competition through the gathering, analysis/interpretation and distribution of information on clients, competitors, partners/related industries and external market factors. It is an important part of the strategic management activities of companies and closely linked to innovation. The successful implementation of competitive intelligence activities is furthermore influenced by corporate culture and should be implemented taking cultural and regional differences into account.

The objective of this study was to determine how competitive intelligence is implemented in a multinational consulting engineering company and based on the analysis of the results, it was concluded that competitive intelligence is applied with relative success in some areas of the company. However, even though there are successful activities pertaining to competitive intelligence in the company, it is emphasised that a more formalised approach should be implemented to achieve optimal competitive performance.

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Appendix A: E-mail invitation

To: All participants

Subject: Know your enemy - the science of staying ahead of the pack

Competitive intelligence in the company

Hi

I am currently enrolled for a Masters Degree with the topic “Competitive Intelligence” and am keen to explore how we can improve what we do in this area to support our business and drive our strategy. It’s not only about the “what” we need, but also the “why”. Your response and thoughts on this important topic will help me shape an improved approach and culture for collecting, sharing and using intelligence (on competitors, clients, partners and the external market) across our business.

I would appreciate it if you can complete the survey by CoB on Friday, 02 July.

Thank you in advance – I know you are busy, but I am hoping that you find some time to assist me with this!

Begin survey

Regards

Yolandi Prinsloo

Appendix B: Questionnaire

Section A: Background information

1. What is your highest qualification?
    a. Grade 12
    b. Tertiary diploma or certificate
    c. Bachelor's degree
    d. Honours degree or other 4-year degree
    e. Masters degree
    f. Doctoral degree
    g. Confidential
2. How long have you been employed at this company?
    a. Less than a year
    b. 1-2 years
    c. 3-4 years
    d. 5-6 years
    e. 7+ years
3. Which one of the following best describes your position within the company?
    a. Global board
    b. Executive management (Exco)
    c. Member of L40
    d. Senior management e.g. Unit manager
    e. Technical director
    f. Associate
    g. Other (please describe)
4. What part of the company do you work in?
    a. Delivery
    b. M&C/Proposals/Clients/BSS
5. In which market(s) do you mainly work? (Mark all applicable)
    a. Energy and resources
    b. Advisory
    c. Infrastructure

d. Built environment

6. Where are you based?
    a. Africa
    b. Asia
    c. Middle East
    d. Australia
    e. New Zealand

Section B: Competitive intelligence

Gathering

7. Is there a formal information function within the company?
    a. Yes
    b. No
    c. Don’t know
8. If no, is information collected and distributed informally across the company?
    a. Yes
    b. No
    c. Don’t know
9. What external market factors do you monitor to get an understanding of the competitive environment outside of the company? (Mark all applicable)

	Weekly/ Monthly	A few times a year	Yearly	Never
a. Economy				
b. Industry				
c. Politics				
d. Technology				
e. Social				
f. Legal				
g. Innovation				
h. Leadership development				
i. Operational risk				
j. Skills availability				
k. Other				
If other, please specify				

10. Indicate how often information on the below is collected and/or distributed (formally/informally) within the company.

	Weekly/ Monthly	A few times a year	Yearly	Never	Don't know
a. Competitors					
b. Clients					
c. Partners/related industries					
d. External market factors					

11. If information on the above is not collected and/or distributed, please give reasons

12. What information do you collect on competitors, clients, related/allied industries and external market factors?

13. How important is the **sources** below for gathering information on clients, competitors, partners/related industries and/or external market factors?

	Not important	Somewhat important	Important	Very important	Essential
a. Employees					
b. Network of peers					
c. Partners/subcontractors					
d. Market analysts					
e. Industry experts					
f. Journalists					
g. Corporate websites/ material/reports					
h. Trade shows/conferences					
i. Trade literature (journals)					
j. Industry analyst/research reports					
k. Specific government literature					
l. Printed media					
m. Electronic media					
n. Social media					
o. Other					
If other, please specify					

14. How important is the following information about competitors?

	Not important	Somewhat important	Important	Very important	Essential
a. Strategy					
b. Commercial information e.g. rates, risks, P&L					
c. Service offering					
d. Recruitment activity					
e. Key experts					
f. General news					

15. How important is the following information about clients?

	Not important	Somewhat important	Important	Very important	Essential
a. Strategy					
b. Commercial information e.g. budgets					
c. Project pipeline					
d. Procurement methods					
e. Expertise required					
g. General news					

16. How important is the following information about partners/related industries?

	Not important	Somewhat important	Important	Very important	Essential
a. Strategy					
b. Commercial information e.g. rates, risks, P&L					
c. Service offering					
d. Recruitment activity					
e. Key experts					
f. General news					

17. How often do you share information with the rest of the company on the following?

	Weekly/ Monthly	A few times a year	Yearly	Never
a. Competitors				
b. Clients				
c. Partners/related industries				
d. External market factors				

18. Where do you store information on the following? (Mark all applicable)

	I don't store information	PC/Lap-top	Local/ regional network drive	Global shared drive	Content Server	Project-Wise	Other
a. Competitors							
b. Clients							
c. Partners/related industries							
d. External market factors							

19. If other, please give more information?

20. In what format do you store information? (Mark all applicable)

    a. Word documents

    b. Excel spreadsheets

    c. Database

d. Other (please give details)

21. Do you think the company needs a system and/or process to store and share information on the following?

	Yes	No	Don't know
a. Competitors			
b. Clients			
c. Partners/related industries			
a. External market factors			

22. Please give a reason for your answers above

Analysis and distribution

23. How important are the tools or techniques below to you when you analyse information gathered?

	Not important	Somewhat important	Important	Very important	Essential
a. Benchmarking					
b. Competitor profiling					
c. Environmental scanning/monitoring					
d. Financial analysis					
e. Gap analysis					
f. Industry analysis					
g. Macro-environment analysis					
h. Scenario analysis					
i. Strategic group analysis					
j. Strategy games					
k. SWOT analysis					
l. Win/loss analysis					
m. Other (please give details)					

24. How often do you analyse information gathered on the following

	Weekly/ Monthly	A few times a year	Yearly	Never
Clients				
Competitors				
Partners/related industries				
External market factors				

25. How important is each attribute below to ensure useful information?

	Not important	Somewhat important	Important	Very important	Essential
a. Accuracy/correctness					
b. Clarity					
c. Usability					
d. Relevance					
e. Responsiveness					

	Not important	Somewhat important	Important	Very important	Essential
f. Timeliness					
g. Comprehensiveness/depth					

Benefits and challenges

26. From your point of view, how important is the following in terms of competitive advantage

	Not important	Somewhat important	Important	Very important	Essential
a. Continual insights into the competitive arena					
b. Early warning of future opportunities, disruptions, and competitive services/products					
c. Assessment of the company's competitiveness through benchmarking					
d. Development of strategies that will drive sustainable advantage					
e. Shaping of counter-competitive strategies					
f. Exploration of knowledge gaps					
g. Sharing know-how in problem solving					
h. Creating new knowledge and permanent learning					
i. Challenging conventional wisdom and questioning assumptions					
j. Meeting the unique information needs of the company					
k. Strong corporate culture focused on competitive intelligence					
l. Effective implementation of competitive intelligence programmes					
m. Resources to conduct competitive intelligence					
n. Identification of the company's strengths					
o. Identification of the company's vulnerabilities and where the risks of attack are too great					
p. Identification of competitors' thought processes					
q. Identification of competitors' strengths					

	Not important	Somewhat important	Important	Very important	Essential
r. Identification of competitors' weaknesses and opportunities for competitive advantage					

Competitive intelligence culture

27. Do you think that there is an awareness within the company of the benefits of competitive intelligence and a culture of competitiveness?
    a. Yes
    b. No
    c. Don't know
    d. If yes/no, please give details
28. How mature is the company culture and ability for knowledge sharing about competitive issues within the company?
    a. Strong
    b. Moderate
    c. Weak
    d. Not at all
    e. Don't know
29. How important is the following in influencing/creating this awareness and culture?

	Not important	Somewhat important	Important	Very important	Essential
a. Centralised information					
b. Dedicated resources for gathering and analysing competitive intelligence					
c. Creating an intelligence database					
d. Having continuous competitive intelligence awareness, sensitisation and training sessions					
e. Rewarding staff for collecting and sharing information and knowledge					
f. Encouraging regular discussions about competitive intelligence and the importance of a learning/knowledge based culture					

	Not important	Somewhat important	Important	Very important	Essential
g. Joining forces with academia, the public and private sector as well as international experts					
h. Establishing practical codes of ethics to guide employees on what should not be part of competitive strategies or intelligence gathering efforts					

30. In your view, is there **visible support** from senior and top management for intelligence gathering and distribution?
    a. Yes
    b. No
    c. Don't know
    d. If yes/no, please give details
31. In your view, is there **visible use** of the intelligence by senior and top management?
    a. Yes
    b. No
    c. Don't know

    If yes/no, please give details
32. What will motivate you to share competitive information within the company? (Select all relevant)
    a. Reward/revenue growth
    b. Recognition
    c. Senior management support
    d. Other (please give details)

Competitive intelligence and business strategy

33. How important is competitive intelligence for

	Not important	Somewhat important	Important	Very important	Essential
a. Effective decision-making					
b. Gaining competitive advantage					

34. What influence does competitive intelligence have on decision-making?

    a. Very positive influence

    b. Positive influence

    c. Neither a positive nor negative influence

    d. Very negative influence

35. How frequently do you make intelligence available to assist in strategic decision-making in the following?

	Weekly/ Monthly	A few times a year	Yearly	Never
a. Unit				
b. Market				
c. Country				
d. Region				
e. Company				

36. In your opinion, how well does the company cope with changes in the business environment?

    a. Above average

    b. Average

    c. Below average

37. How intense do you believe is competition in your business environment?

    a. Very intense

    b. Intense

    c. Not intense

38. Can you think of any situation(s) where you felt that you were ‘blindsided’ by a market event impacting the company?

    a. Yes

    b. No

    c. Don’t know

    If yes, please explain how you think we could have prevented this.

39. Does the company have a strategy in place to anticipate and manage the impact of external market factors?

    a. Yes

    b. No

    c. Don’t know

40. How often do the areas below adapt/change their respective strategies based on competitive intelligence received?

	Always	Regularly	Almost never	Never	Don't know
a. Unit					
b. Market					
c. Country					
d. Region					
e. Company					

Link between competitive intelligence and innovation

41. How important is innovation to the success of the company?
    a. Not important
    b. Somewhat important
    c. Important
    d. Very important
    e. Essential
    f. Don't know
42. How important is innovation in the following areas?

	Not important	Somewhat important	Important	Very important	Essential
a. Company					
b. Process					
c. Service offering					
d. Product					

43. How can we continually share and re-use knowledge within the company to enable innovation?
44. How can innovation be cultivated within the company?

Implementation of competitive intelligence across borders

45. Does the multinational nature of the company increase the need for disciplined focus on competitive intelligence?
    a. Yes
    b. No
    c. Don't know
    d. If yes/no, please give details

46. Do regional differences have an influence on competitive intelligence?

    a. Yes

    b. No

    c. Don't know

    d. If yes/no, please give details

47. To what extent does the following influence the gathering and distribution of intelligence across regions?

	Not at all	Very little	Somewhat	Great extent	Very great extent
a. Availability of information					
b. Business environment					
c. Culture and customs					
d. Economy					
e. Ethics					
f. Language					
g. Legislation					
h. Politics					
i. Social					
j. Technology					

48. Does the company have in-depth knowledge and understanding of the countries where it has offices and projects?

	Not at all	Very little	Somewhat	Definitely	Extensively
a. Offices					
b. Projects					

49. Is this knowledge shared within the company?

50. To what extent will the following actions positively influence cross-cultural intelligence efforts?

	Not at all	Very little	Somewhat	Definitely	Extensively
a. Awareness of the cultural, social and economic differences between countries					
b. Assigning cultural leaders knowledgeable about different cultures and fluent in local language(s)					
c. Organising cross-cultural competitive intelligence structures					
d. Implementing a cross-cultural competitive intelligence programme					
e. Other (please give details)					

Thank you for your participation.