

Assessing the decision making dynamics of shareholders during mergers and acquisitions of engineering consulting firms

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LIST OF ABBREVIATIONS

M&A – Mergers and/or Acquisitions

NDP – National Development Plan for 2030 in South Africa

LIST OF DEFINITIONS

Merger of equals – The combination of two or more companies of about the same size to form a single company

Acquirer or Buyer – The company that purchases or offer to purchase another company in an acquisition

Seller or Targer – The company that sells or offer to sell to another company in an acquisition

ABSTRACT

The essence of this study is to capture the dynamics of decision-making. The context of this study is the engineering consultant industry consolidation in South Africa over the last five years.

Decision-making is a complex phenomenon and highly influenced. To understand the dynamic nature of decision-making, it is important to understand the rationale or process that was followed to derive to the decision made. This can be simplified or better understood when evaluated at the hand of a context.

In South Africa, consolidation activity was relatively high during the last five years when compared to previous years – engineering consulting companies – with international groups teaming up with well-established domestic entities to create new African-focused organisational platforms.

The research questions are predominantly “how” and “why” questions and this is best answered through a qualitative research approach.

The research design uses a multi-case study design in that participants in this research study are employed by different engineering consultant companies. It does not follow the traditional multi-case design which determines similarities and differences between the cases or similarities and differences in the same case, but rather a view gathered on the same context from different perspectives.

The participants are defined as key role players with a responsibility to make strategic, financial and/or commercial decisions in a company and individuals who directly faced decision-making in the context of this study. Data collection is primarily by means of interviews.

The key findings indicate that decision-making is highly influenced and that personal disposition is a prominent influencing factor. Another finding was that industry consolidation was a global trend that could no longer be ignored in South Africa and that companies had to strategically respond to a number of key issues that they have been facing.

It is clear that decisions are made in context. The continuously changing environment in which the engineering consultant industry operates means that opportunities are never static and that decision making is always dynamic. It is important to have strategic objectives and a list of expected outcomes at the start of a decision making process and to monitor and control progress

constantly against these as one advance through a life cycle of events, such as a consolidation transaction.

This research study concludes in a sense that the engineering consultant industry is looking forward, some recommendations to the industry and recommendations for further research.

KEYWORDS: Decision making, Consolidation, Merger & Acquisition, Engineering Consultant Industry,

1. CHAPTER 1

1.1 INTRODUCTION

The essence of this study is to capture the dynamics of decision-making. The context of this study is the engineering consultant Industry consolidation in South Africa over the last five years. In order to achieve this, the motivational push and pull factors for the decisions that have been made, as it is described by participants in this research, are gathered.

A push variable, often defined as a factor that initiates the want or need for change, as well as the pull variable are often defined from the desired result or outcome that influences the choice of one decision alternative to another.

Globally the consolidation of the engineering consulting Industry was a recognised trend and could no longer be ignored in South Africa.

The concept of mergers and/or acquisitions (M&A) is very familiar. The two parties to the transaction are: the acquiring company or the *acquirer* and the targeted company or the *seller*.

This concept can change in a true *merger of equals* where the *buyer* and *seller* concept potentially falls away and shareholders of both entities takes surety in the new company.

Companies are always looking for ways to reduce business risk, reduce costs, increase profit margins and increase the revenue size of a business. M&A often form part of a company's growth strategy and risk diversification methods and for this reason, but not limited to, the occurrences of M&A are obvious.

In South Africa, consolidation activity was relatively high during the last five years when compared to previous years - engineering consulting (both large and small companies) - with international groups teaming up with well-established domestic entities to create new African-focused organisational platforms. These events are the context of this research and the participants are the decision makers or key role players that have been actively involved or actively observing during the process.

How and why a certain decision is made could share similar motivational variables and follow theoretical decision making processes. It is expected that decisions are made in context.

1.2 PROBLEM STATEMENT

Decision making is a complex phenomenon and highly influenced.

To understand the dynamic nature of decision making, it is important to understand the rationale or process that was followed to derive to the decisions made. This can be simplified or better understood when evaluated at the hand of a context.

The engineering consultant Industry consolidation sets a worthy backdrop to this research study.

According to Dier *et al.* (2011:2-27), mergers and acquisitions (M&A) have globally become more mature since 2000 with the number of transactions increasing dramatically. This can be supported by the Equiteq global consulting mergers & acquisitions report 2013 (2013:34-36), where 464 deals (19% of all deals) were recorded in 2012 in engineering consulting worldwide.

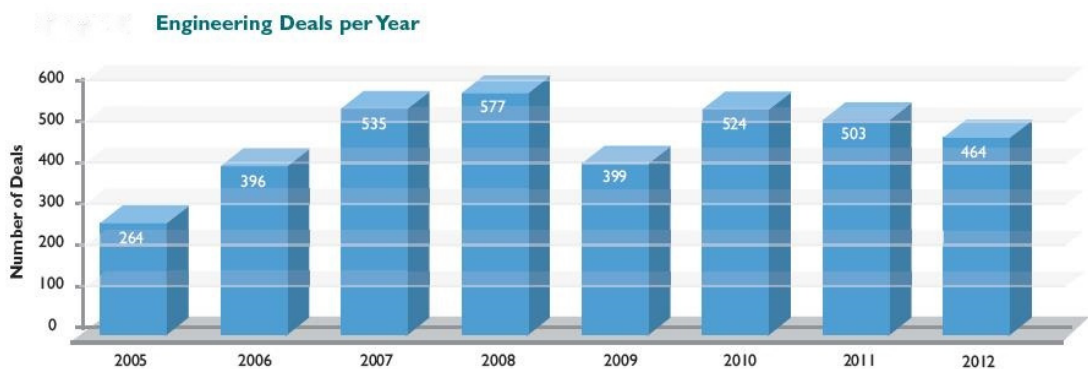


Figure 1: Engineering consultant deals globally (Equiteq, 2013).

In Africa, deal volumes in the same industry have increased over the past four years from 45 deals in 2009 to 65 deals in 2012.

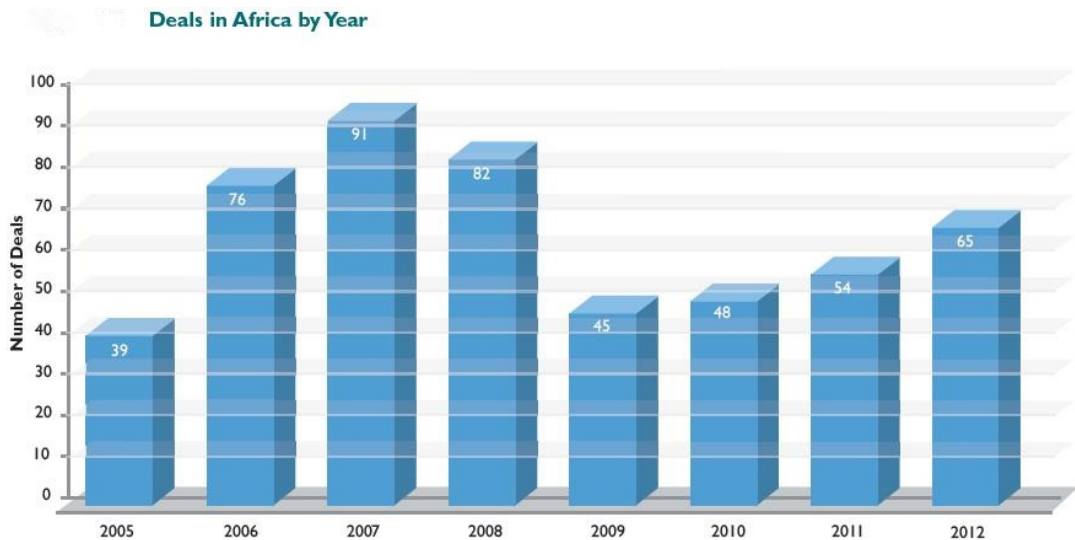


Figure 2: Engineering consultant deals in Africa (Equiteq, 2013).

It is recognised that M&A occur both domestically and cross-borderly. According to Lemkau (2013) the macro and micro climate must be suitable to promote M&A activity. He continues to comment that globally, the last few years have been recognised by low interest rates, record cash balances and low organic growth opportunities within firms and its current markets.

Although M&A worldwide will showcase a lot of examples, this study focusses on South Africa.

With attention shifting to emerging markets such as Africa, the reason for the South African occurrences has to date primarily been documented as a corporate action that positions South Africa as an engineering consulting gateway to Africa (Burger, 2013).

However, although this could be a key expected outcome for the *acquirer*, the expected outcome for the *seller* could still be very different.

1.3 RESEARCH QUESTIONS

The following research questions have been defined from the problem statement:

1. What motivates and influences a decision?
2. How do the motivations and influences described under the first research question feature in the context of the study?
3. Why have a number of the large South African engineering consulting companies been merged or acquired?
4. What was the importance of worldwide industry consolidation trends, a weak South African economic outlook and a change in market demand?
5. What were the objectives and desired outcomes of both the *acquirer* and *seller* at the time of decision making during the inception/strategy management phase?
6. How have these desired outcomes been achieved to date now that integration on most of the local transactions is concluded?

1.4 EXPECTED CONTRIBUTION OF THE STUDY

Contributions in the following fields are expected:

- The engineering consulting Industry in South Africa

- Body of knowledge of decision making dynamics.

1.5 RESEARCH OBJECTIVES

The research objectives are divided into general objectives and specific objectives.

1.5.1 General objectives

The following general objectives should be achieved through this study:

- Develop a holistic understanding of the dynamics of decision-making in the engineering consultant industry in South Africa

1.5.2 Secondary objectives

- Maintain anonymity of the participants and firms.

1.5.3 Specific objectives

- To determine what motivates and influences a decision.
- To determine what motivations, influences and considerations were given to the decisions that have been made in the context of the study.
- To determine why a number of large South African engineering consultant companies have been merged or acquired.
- To determine what the objectives and desired outcomes of both the acquirer and seller at the time of decision-making were during the inception/strategy management phase.
- To determine how the desired outcomes have been achieved to date now that integration on most of the local transactions have been concluded.

1.6 RESEARCH METHODOLOGY

The research design and paradigm are briefly introduced in terms of what is completed during the empirical phase of this research. The research procedure indicates how participants in this study are contacted and how interviews are scheduled.

The research population and sampling method used during the study is further described below, as well as the procedure for data collection, the data analysis and interpretation methods used.

1.7 RESEARCH DESIGN

Two alternative research design approaches exist: qualitative research design or quantitative research design. This study employs a qualitative research design. Nevertheless, the two alternatives are briefly highlighted and compared.

1.7.1 Qualitative research design

Qualitative research emphasises on words as opposed to numbers and measurements and is inductive and more flexible by nature (Bailey, 1994; Bryman, 2012; Creswell, 2003; Guest *et al.*, 2012). Theory is often generated through data collection and analysis and is effective for gaining insight into the perspectives of the parties being studied and is associated with qualitative research (Bryman, 2012; Creswell, 2003). Therefore it is possible for participants to convey their experiences and for the researcher to get a holistic view to understand their actions.

By utilising a qualitative research approach and through its flexibility, it is possible for participants to convey their experiences and for the researcher to better understand their actions holistically.

“Why” and “how” questions are most prevalent in the research questions and this is best answered through a qualitative research approach.

The advantage of the qualitative research design is that it allows the deeper exploration of pertinent issues surrounding the research topic and context.

1.7.2 Quantitative research design

Quantitative research is construed as a research strategy that emphasises quantification in the collection and analysis of data. Therefore it entails a deductive approach to the relationship between theory and research, in which the accent is placed on the testing of theories (Bryman, 2012).

1.7.3 Research strategy

A phenomenological strategy and qualitative methods are concerned with the study of experience from the perspective of the individual.

The research approach is therefore based on a paradigm of personal knowledge and subjectivity and also emphasises the importance of personal perspective and interpretation.

This research strategy forms an important part of the empirical research in such that it is concerned with understanding the subjective experience; gaining insights into people's motivations and actions.

1.7.4 Research procedure

Interviews are the primary research instrument.

Participants is contacted via telephone and followed up with written electronic communication. The telephone conversation and subsequent written communication focuses on a summary of the research, research objectives and research questions. This procedure is followed by a request for an interview.

The selection of participants is through a well-established network in the engineering consultant industry as well as referrals from one participant to another. It is important that the participants selected for this study is an individual with key decision making positions in their respective organisations as well as an individual that was actively involved in the decision-making in the respective consolidation activity.

The interviews are conducted at a venue most suitable for the participant. Most interviews occur during working hours and therefore occur at the workplace of the participant.

1.8 SAMPLING

1.8.1 Sampling method

Purposive sampling is used in conjunction with data review and analysis. This way the sample size is continuously determined on the basis of theoretical saturation of the study. This way further reading and or data collection can be determined on a continuous basis.

The snowball effect is also expected and relied upon to achieve a large enough sample size. In this case the sample size continues to expand through referrals from one participant to another.

1.8.2 Data analysis

Data collection and analysis occurs simultaneously. The information obtained is immediately return to the research objectives to ensure that the study remains focussed on its original targets.

Specific data analysis techniques are established from the following identified techniques:

- Coding: This is used for pattern matching. Coding enables segmentation of the documentation that informs the relevant research questions. Finally, coding enables the discussion of similarities and differences and comparing the multiple case studies.
- Data fragmentation: Data fragmentation is very similar and an extension to coding in that data is also categorised. Codes are much more specific than and more a subset of data fragments; data fragments can lead to multiple codes (Guest *et al.*, 2012). Response fragments are categorised in a similar fashion, whilst identifying and keeping track of the origins of the various fragments (Bryman, 2012).
- Content analysis: Used to identify themes and topics that inform the relevant research questions.
- Explanation building: It is important to integrate the data in an attempt to understand the overall case. To achieve this, matrix/logical analysis can be used to finalise the comparative tables between the cases and context from where logical findings, conclusions and theory building can occur.

1.9 **QUALITY OF THE DATA**

To allow transferability, the empirical research provided sufficient detail of the context of the fieldwork for a reader to be able to decide independently whether the environment is similar to another in which the findings can justifiably be applied to another context.

Internal validity is sought to ensure that the study measures will test what is actually intended and to deal with the question: “How relevant are the findings?”

Credibility is enhanced by circulating the findings of the research back to the participants to judge the credibility and the interpretation of the researcher of the phenomena of interest from the participant's perspective.

1.10 ETHICAL CONSIDERATIONS

Research in ethics for this study will deal with the interaction between the research, the data that is collected, and the people they interview during the study.

Anonymity is crucial to ensure that the true information is obtained from participants.

Disinfected information is captured in the final study with raw data kept within the database.

The following key ethical considerations are identified and are used during this study:

- Respect for those who developed the literature research that is studied and reviewed. Self-interpretation are limited and kept to a minimum where it cannot be supported by other research.
- Respect for the individuals interviewed as part of the study. Allowing enough time for their preparation of the interview and the option to review what was recorded after the interview is concluded.
- Informed consent, whereby people are informed about what it means to participate in the research so they can decide in a conscious and deliberate way whether they want to participate.
- Protect confidentiality.

Chapter 2 summarizes the literature review that is completed as part of this study. The literature review covers the aspects raised by the problem statement and aims to provide the necessary background information as well as previous studies completed that is relevant to this topic.

2. CHAPTER 2 – LITERATURE REVIEW

2.1 WHAT CAN BE EXPECTED FROM THIS LITERATURE REVIEW

The literature review covers the aspects that are defined in the research questions and objectives.

A theoretical decision making process as well as a model for strategic decision making are included. The motivations for decision-making and the influencing factors are covered in theory. This is supplemented by an overview of the South African context in which local engineering consulting companies must operate daily.

The context of the study is the engineering consulting industry consolidation in South Africa over the last five years. Although the research is not directly focussed on consolidation activity such as mergers & acquisitions (M&A), it is judged as crucial to at least present an overview to the dynamics of M&A from a theoretical point of view to set the backdrop for the empirical findings and discussions.

A high level overview with regards to global consolidation trends in the engineering consulting industry, a South African economic outlook and a change in market demand is given only to illustrate clear motivational push factors for the activity levels in South Africa.

Lastly, personal objectives and desired outcome that are in theory, described as managerial motives, are covered in this literature review.

A glossary is words in *italic* that are included in the glossary at the front of this study.

2.2 DECISION-MAKING IN GENERAL

2.2.1 Decision making process

Decision making is an important organisational process. With the rapidly changing environment in business today, decision-making forms an integral part of the daily activity and it has an impact at every organisational level.

According to Hammond *et al.* (1998:47-58), the best way to avoid making bad decisions is to be disciplined and have a systematic approach to set decision making criteria and to evaluate options and project probabilities.

Strategic planning in organisations is dependent on decision-making. Tan and Shen (2000:1141-1151) point out the importance of decision making processes in strategic decisions.

Therefore it is paramount of managers to be capable of identifying the problem or opportunity that requires a decision, be able to develop novel solutions and effectively implement a decision that has been made (McFadzean, 1999:110).

According to Rossiter and Lilien (1994:68), the production of high-quality creative ideas is regarded essential for the survival of most companies. Also, that the fast pace nature of the environment today highlights the need to make accurate and effective decisions without delay or procrastination.

As a manager, a benefit of following a thorough decision making process enables you to describe the school of thought and logic behind your decision and in turn gain buy-in on the decision taken from those individuals that are impacted.

Smith (2001:419) notes that by following a decision making process, it eliminates the top-down management style to some extent and can result in less employee resistance to change in such an appropriate case.

Several decision making processes exist in theory. According to Schweiger *et al.* (1986:55) all decision making processes are designed to encourage evaluation and re-evaluation of any decision. Also that a high quality decision is an informed decision that has considered all issues deserving thought with respect to the situation or context (Rausch, 2007:12).

For this research, a generic decision making process is described in a number of sequential steps.

- Step 1: Identify the problem or opportunity.
- Step 2: Gather Information.
- Step 3: Analyse the situation.
- Step 4: Develop options and evaluate alternatives.
- Step 5: Select a preferred alternative.
- Step 6: Take action.

Figure 3 below graphically illustrates the steps of making a decision as described above.

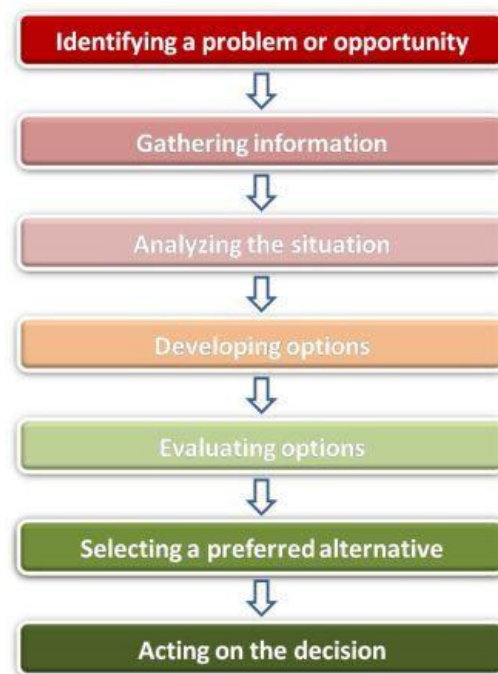


Figure 3: A decision making model for the selection of decision strategies (Nutt, 2014)

In addition to the generic decision making process highlighted above, strategic decision-making is highlighted separately.

Strategic decision-making is informed by strategic vision and this means having a clear picture in your mind of your end game. Therefore having a clear definition of the end goal that can be articulated in a measurable way is critical (Sondhi, 2005:14). He highlights a number of pertinent issues with regard to strategic decision-making:

- Key issues facing the company should be analysed and the interconnectivity between issues understood.
- Creating strategic options is paramount otherwise there is no choice in the decision.
- Creative thinking should be applied in finding various avenues to pursue and this should be unbiased.

Sondhi (2005:14) describes the art of strategic decision-making at the hand of the following diagram:

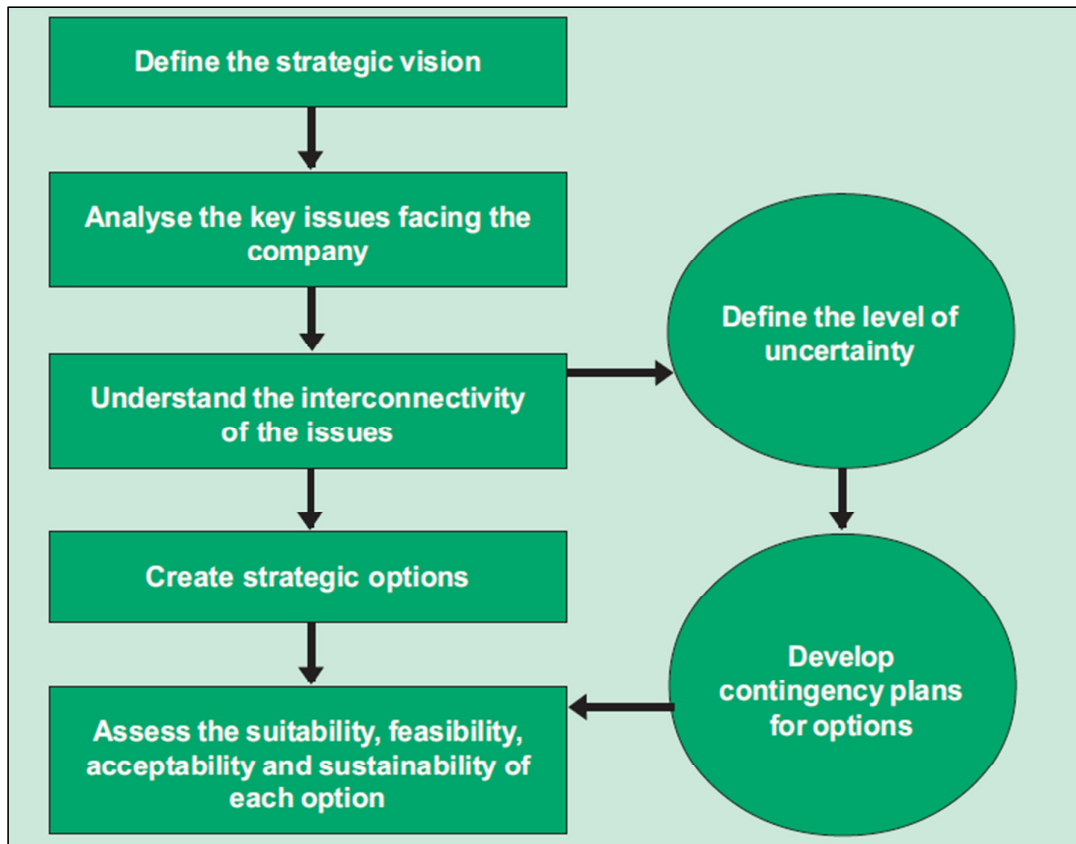


Figure 4: Model for strategic decision making (Sondhi, 2005).

According to Olie *et al.*, (2012:86) strategic leadership research focuses on top executives and management and the effect and impact they have on an organisation. Strategic leadership bases its premise on that strategy which is developed by humans who act and are influenced by previous experiences and memory, motives and disposition. Therefore strategic outcomes such as strategic change are seen as a reflection of a company's top managers and top management teams (Hambrick & Mason, 1984:750).

2.2.2 The “why” behind decision-making

The “why” behind decision-making refers to the factors that created the need for a decision in the first place and recognised to be in precedence of the first step which is to identify the problem or opportunity in the decision making process.

In literature, a *push factor* or variable is often defined as a factor that initiates the want or need for change or the want or need for a decision. The *pull factor* or variable is often defined as the desired outcome that influences one decision over another alternative. The individual's perception of push and pull factors occurs in context and the complex combination of these factors will influence any decision (Shultz *et al.*, 1998:46).

Shultz *et al.* (1998:46), using the results from Williamson's research, outlines that employees with more push than pull factors are less satisfied with the context in which the decision needs to be made than those with more pull factors than push factors. One combination of push and pull factors implies that an individual has been forced into a decision, while another combination of push and pull factors can imply that an individual is satisfied to make a decision and move forward and go on with other things. Therefore understanding both the push and pull factors of a decision is necessary. It is also necessary to understand it in context to holistically view the decision that was made.

Decision reports are one way to think about the modality of a decision. Writing down a decision not only calls for a lot of analytical intelligence, but it demands the understanding of the criteria of evaluation as well. It is also important for continuity in decision-making. It must be understood that decision-making is not necessarily a once off event but a process where decisions are linked and relate to one another. The modalities of decision-making can therefore not be taught as a science. Therefore, it is important to situate a problem rather than seek impulsive solutions in the context of management (Harvard Business Review, 2007:208).

2.2.3 The “who” in decision-making

According to Glover *et al.* (1997:1320), decisions that are required in the organisational context must not lose focus of the individual. The individual is the one who must eventually decide what to do whilst executing his or her role and responsibility within the organisation.

Social psychology deals with the behaviour of groups of individuals and how an individual responds to another (Smith & Guthrie, 1921:1). Therefore psychology is an important factor to consider when it is aimed at understanding the dynamics of decision-making.

A number of social psychology concepts plus a definition and/or short explanation is included below. The concepts highlighted do not necessarily hold perfect relation with the objective of this study, but are included as a wider perspective on the subject (Milgram, S. & Van den Haag, E. 1978).

- **Group pressure & conformity** – An influence resulting from one's willingness to accept others' opinions about reality. Conformity is strengthened if the group has at least three people and is unanimous. The individual is made to feel incompetent or insecure (Milgram *et al.*, 1978).
- **Normative social influence** – Using the research of Chartrand and Bargh, normative social influence is a person's desire to gain approval or avoid rejection (Milgram *et al.*, 1978). Also, normative social influence means to adjust one's behaviour or thinking to coincide with a group standard.
- **Power of the situation** – Each specific situation also brings a unique set of forces to bear on an individual, compelling him or her to act in different ways in different situations (Milgram *et al.*, 1978).
- **The bystander effect** – Fear of standing out, making a mistake or over-reacting to the situation. This creates a diffusion of responsibility (Milgram *et al.*, 1978).
- **Attributing behaviour** – Personal dispositions are enduring personality traits.
- **Social facilitation** – According to Aiello and Douthitt (2001:163) using the research by Triplett (1898) the improved performance on tasks is stimulated by the presence of others.
- **Social loafing** – The tendency of an individual in a group to exert less effort towards attaining a common goal than when tested individually (Latane *et al.*, 1979:829)
- **Groupthink** – A mode of thinking stimulated by a desire for harmony in a decision making group which overrides realistic appraisal of alternatives.
- **In and out groups** –
 - In-group: People with whom one identifies or shares a common interest.

- Out-group: Those perceived as different from one's in-group.
- In-group bias: The tendency to favour one's own group.

In-group

The in-group relationship is one based on expanded and negotiated roles and responsibilities (Northouse, 2013). Members in this group are favoured by the leader. They are trusted more, entrusted with more responsibilities and seen as more dependable. Due to the aforementioned, they receive greater opportunities for development and growth. The leader spends a lot more time with these team members whom receive more attention and support. Members in this group work harder, perform better and go the extra mile and the leader goes the extra mile for them in return. They usually share the leader's goals and aspirations and are in many cases very similar in character and personality to the leader. In-group members work hard to impress the leader and gain his/her trust.

Out-group

The out-group relationship is one based on a formal employment contract, with definite and defined roles and responsibilities. Members in this group are less favoured by the leader. They are trusted less and assigned fewer responsibilities. They receive fewer opportunities for development and growth. They have less interaction with the leader and receive limited attention and support. Members in this group merely do what is expected of them and not much more, which in turn means the leader does not expend any extra effort on them.

2.2.4 Management culture

The management culture of an organisation is similar to organisational culture however it pertains to the management of a company specifically. It is defined as the underlying characteristics of a particular group of people. It is at least shared with people who live or have lived in a similar environment. Culture is learned and not inherited and is derived from one's social environment (Hofstede, 1991).

Management culture can evolve from:

- Leader's vision, attitude and actions.
- Influential individuals.
- Policies & procedures.
- People management.

- Employee work-ethics and organisational policies.

Management culture is reflected in a company's:

- Values, business principles and ethical standards.
- Approaches to people management and problem solving.
- Relationships.
- Attitudes and behaviours.

Different types of management cultures exist:

- Knowledge value management culture,
- unanimous decision making culture and
- a top-down or bottom-up management approach which are further discussed below.

A knowledge value management culture is a culture that creates value for customers, shareholder and employees (Petrash, 1996:366). The importance hereof in this research is that “knowledge value management culture” is seen as the ability of a company to manage and leverage intellectual capital.

Where:

Intellectual capital = human capital + organisational capital + customer capital

- Human capital – individual knowledge.
- Organisational capital – knowledge captured and institutionalised within the structure, processes and culture of an organisation.
- Customer capital – perception of value obtained by a customer.

Lazega (2001:222) completed research that indicates that in history unanimous decision-making has tend to be quite effective and sustainable over time in a partnership type organisation. However, often there is pressure on an organisation to abandon this type of management culture when the organisation gets quite large and it becomes apparent that it is not increasing in performance and growth to the high degree initially anticipated (Collins, 1997:490).

The sustainability of partnership relationships appears to arise from a statutory nature; that is partners that share both ownership and leadership of the business (Lazega, 2001).

The concept of top-down or bottom-up management culture centres on information flow and information processing respectively. Information flow emphasises the flow of information from the lower levels in the organisation to influence the decisions made on top management level. Information processing transmits a decision made by top management to the lower levels of the organisation for implementation and refining. A bottom-up management culture will enhance the information flow phenomena whereas a top-down management culture will rather promote information processing (Nonaka, 1988:1).

2.2.5 Emotional decision-making

Research on decision making processes and how decisions are made suggests that emotion plays a vital role in decision-making.

According to Vroom (1964), who did very early research on this topic, the role of emotion is implicitly acknowledged, showing that the decision maker's preference amongst decision alternatives is influenced by the individual's affective orientation towards a specific or desired outcome.

Attribution theorists have shown that anger and concern will influence any decision to engage in helping behaviour and that people take the emotions that they anticipate they will feel into account when making decisions today (Mellers, 2000:915; Schwarz, 2000:435). These studies reveal that before a person makes a decision they anticipate the pleasure or regret that they will experience with the possible outcome (Zeelenberg, 1999:95).

Organisational decision processes can be very subtle and routinised, however potential mergers and acquisitions and downsizing can have dramatic effects on the emotions of employees within an organisation. Knowing this at top management level can have a large impact on how decisions are made in an organisation (Brockner, 1988:220).

Very little is known from previous research regarding the dynamics of negative emotions in an organisation. To date, a lot of focus has been placed on the individual level and the emotions of the individual. The focus was on the decision a person makes and less attention was given to the dynamics of collective emotions. Despite recognition of emotions in decision-making, it is nevertheless a choice-based process (March, 1994).

2.2.6 Risk and uncertainty

A unifying trend has been recognised in previous research that mergers and acquisitions are seen as strategic decision processes and that the central focus of most of these empirical studies are risk/return relationships (Pablo *et al.*, 1996:727).

Amihud and Baruch (1981:605) has conceptualised acquisition risk as “the uncertainty” that exists before the commitment rather than afterwards.

There is risk associated with decision outcomes and some outcomes are more desirable than others. Risk also influences decision behaviour by influencing perception with regard to the decision situation, evaluation of alternatives and choices made (Pablo *et al.*, 1996:727).

Across the lifecycle of a consolidation transaction, consideration of risk has a role to play.

According to Pablo *et al.* (1996:727) a model of risk's influence on the acquisition decision process can be highlighted in the following figure. The decisions are made sequentially and at each stage a decision made, influences the extent of alternatives available in the next step.

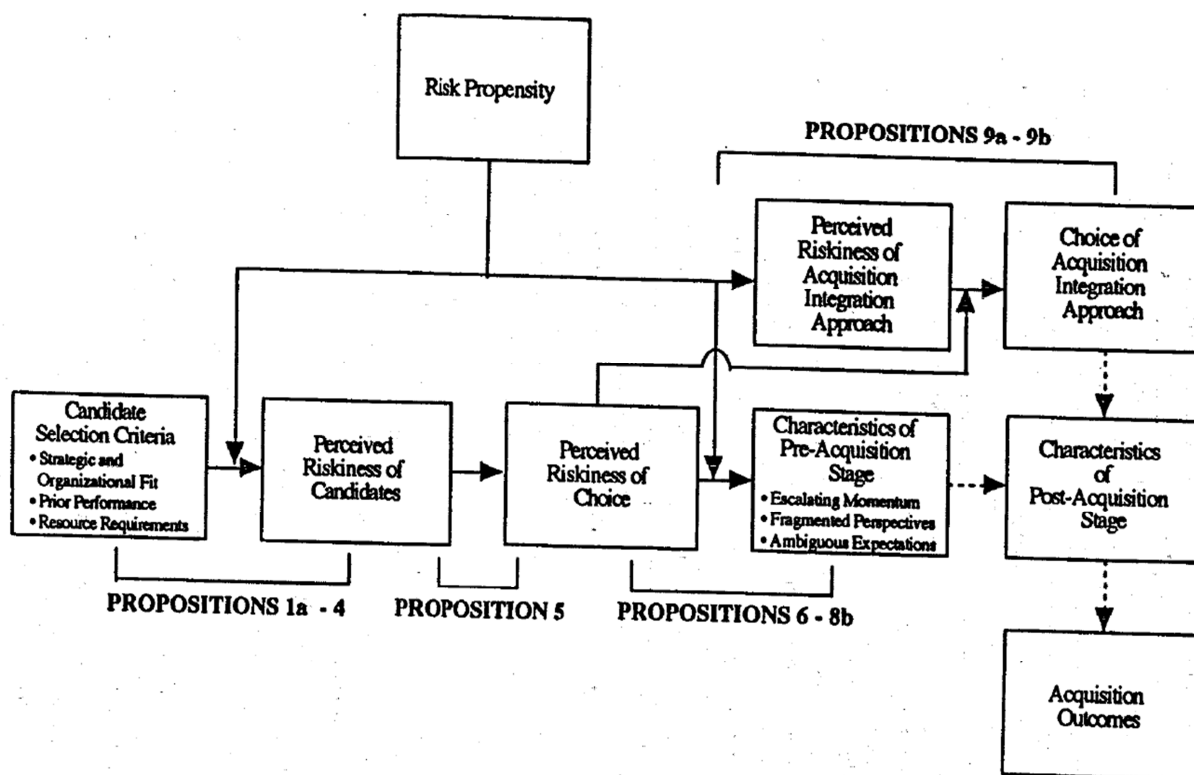


Figure 5: Model of risk's influence in acquisition decision making.

2.3 OVERVIEW OF THE CONTEXT OF THIS STUDY

2.3.1 Introduction to mergers and acquisitions (M&A)

The frequency of occurrence of M&A in the industry means that it is important for business people to understand how and why these events occur.

A lack of understanding of the role M&A play in a modern economy can mean the failure of managers, shareholders or directors to use such transactions as an effective means of implementing a business strategy (DePamphillis, 2011:xiii).

It must be noted that although M&A can form a critical part of a firm's strategy, it only represents one method to execute business plans. It is already noted here that the world is continuously interconnecting. Globalisation is forever changing the context in which the world operates.

Various transaction types for M&A exist. The mechanisms, steps and legislation to such a process are more country specific and the South African mechanisms available are briefly discussed further on in this chapter.

2.3.2 Mergers & acquisitions as change agents

A merger and/or acquisition transaction cannot take place without the expectation of corporate change (DePhamphillis, 2011:20).

M&A change and organisational culture states that a wide range of factors affects organisational change that will occur during a consolidation transaction of two companies and that leaders will face a daunting task (Kavanagh & Ashkanasy, 2006:S81).

M&A are considered highly complex events with a large number of factors that can lead to success or failure. Because a consolidation transaction influences so many fundamental operations and all levels of an organisation, it presents a very difficult organisational change and decision process (Kavanagh & Ashkanasy, 2006:S81).

There is no substitute for CEO and executive team involvement for effective change to occur (Kavanagh & Ashkanasy, 2006:S81).

2.3.3 Role playing factors in mergers and acquisitions

External market dynamics such as how an industry may evolve, competitive moves, changing customer requirements and preferences, macro-economic and capital

market uncertainties and regulatory changes require the greatest focus in any given transaction (Ruggeri, 2013).

Several common theories as to why mergers and acquisitions occur exist:

- **Operating and financial synergy** – represents a strategic fit when the value chains of different businesses present opportunities for cross-business resource transfer, lower costs through combining the performance of related value chain activities, cross-business use of a patent brand name and cross-business collaboration to build new or stronger competitive capabilities (Lotriet, 2014).
- **Diversification** – Merits strong consideration whenever a single business company encounters diminishing market opportunities and stagnating sales in its principle business or current market. Diversification includes expanding into other markets, geographies and/or other business lines or product offerings (Lotriet, 2014).
- **Strategic re-alignment** – represents *corporate restructuring*. It is considered an important means of transferring resources to where they are most needed and of removing underperforming managers (DePhamphillis, 2011:7).
- **Market power** – the scenario of horizontal consolidation in an industry where a few larger organisations consolidate with smaller competitive firms to decrease market competition and increase the monopoly power of an organisation.

M&A activity in history has followed a trend to occur in clusters across a number of multiple years. This would suggest that there is indeed role playing factors that will also stimulate this sort of collective activity.

The role playing factors are grouped together and classified:

- **Industry consolidation** – trends that occur across an industry with revenue distribution by firm size, where firm size accounts for the number of employees increasing over a number of years (Rohde, 2009).
- **Capital availability** – record cash flow balances stimulating a need for investment elsewhere. According to Credit Suisse (2014) corporate cash levels have been rising and debt levels falling since the credit crisis in 2008. Access to capital and credit availability drives momentum behind transactions (DePamphillis, 2011:24; Ernst & Young, 2014).

- **Macro-economic conditions** – At time of economic change and changing demand, dynamics forcing companies to restructure in response to these changes (Ernst & Young, 2014).
- **Micro-economic conditions** – sustained low interest rates, high rate of economic growth and credit availability (Lemkau, 2013).
- **Type of industry** – Not all industries is ripe for consolidation especially where it is a lot harder to construct value-accredited deals (Credit Suisse, 2014). Emergence of new technology, industry focus, emergence of new markets and innovation are key drivers that will stimulate a specific industry to change.
- **External environmental factors** – Degree and sudden change of government policies and regulations, border protections and import restrictions, tax incentives, low cost loans, labour cost, availability of natural resources. These factors include reasons for locating value chain activities cross-borderly (Lotriet, 2014).
- **Emerging markets** – Continued opportunities in developing nations and/or developing markets.

According to Persons and Warther (1997), takeover waves can also result from the fact that firms respond sequentially to the actions of their competitors.

2.4 M&A LIFECYCLE MODEL & PROCESS DISCUSSION

The lifecycle process model for M&A typically includes a strategy, transaction and integration phase.

Dier *et al.* (2011:2-27) defined a process model for corporate M&A which is shown in Figure 4 below.

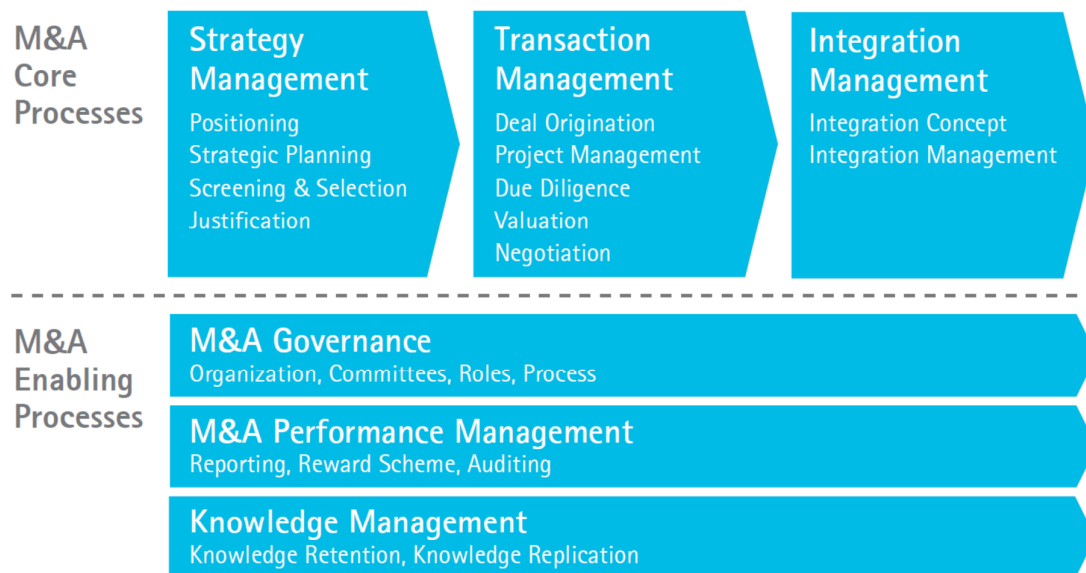


Figure 4: Process model for corporate M&A.

Accenture developed this model from in-depth interviews with 33 M&A directors from some of the leading acquirers to understand the best practices in selecting and executing M&A transactions.

The model describes six processes – three of which are defined as core processes and three defined as enabling processes.

The core processes refer to typical phases through which all deals must progress, whereas enabling processes are more for continuous acquirers to co-ordinate a portfolio of M&A projects and systematically increase performance and reliability of each transaction.

Strategy management is the process of linking deal making / the transaction with the corporate strategy and is also the inception phase of the transaction.

Transaction management is turning potential transactions into successfully closed deals and includes the due diligence processes as well as company valuation exercises.

Integration management consists of an integration concept to plan how the *target* will be incorporated and integration implementation to execution of the integration concept.

M&A governance is the foundation and defines how committees will act as co-ordination and decision making bodies and puts guidelines and standards in place.

M&A performance management is required to ensure accountability across an organisation and avoid empire building and managerial overconfidence – to keep managers focussed on the goals and targets at hand.

M&A knowledge management is to retain the knowledge and information gathered during each transaction.

2.5 ROLES AND RESPONSIBILITIES OF KEY PLAYERS

It is important to understand and note the roles and responsibilities of key decision makers during a merger and/or acquisition. An understanding of the individual's stake could give valuable insight into the empirical study findings.

Three levels are distinguished below and discussed: Board of directors, the shareholders and the managers.

2.5.1 Board of directors

Directors are responsible for the corporation/organisation and not the shareholders. The directors must oversee the performance of top management in an organisation.

The role of the board in M&A varies with the significance of the transaction. Considering that M&A is one way that a company can execute its business plan and deliver value, the board will primarily play a similar role: setting strategy, monitoring corporate performance, overseeing risk management and championing good governance (Phillips & Levitin, 2010).

M&A is often a key feature of a company's business strategy, and it may entail a high degree of risk. Strategy and risk oversight are principal board responsibilities (Deloitte, 2014).

On the *buyer* side, the board should evaluate proposed acquisitions in the context of the company's strategic vision as well as consider, from a strategic view, the company's resources – both financial and managerial – and whether a proposed transaction is the best use of those resources. Therefore the board of directors should take a strategic view on the “synergy” that will be realised through the transaction as well as how aggressive the projections and associated assumptions are that are made (Phillips & Levitin, 2010; Calzada *et al.*, 2012).

The board should raise questions with regard to the probability that the transaction will create shareholder value; is the transaction a cultural fit and how will it affect key stakeholders? (Calzada *et al.*, 2012)

On the selling side, the situation is a bit different because a sale transaction, particularly a sale of the company as a whole, can be the best opportunity for shareholders to achieve a premium for their investment (Phillips & Levitin, 2010). The duties of the board on the selling side remain strategy, governance and oversight.

In a sale of assets, the *target* acts through the board as the *seller*. The board is bypassed should an offer be made towards the individual shareholder and accepted. In this case, the board will ensure that the process adopted by the *acquirer* is fair and that shareholders are exposed to all competing offers.

2.5.2 Management team

The board of directors take ultimate responsibility for the company and it is their responsibility to give strategic direction.

Once the board of directors have made various decisions it is delegated to the management team for execution and implementation.

The management team is responsible for all daily operational issues and strategic decision-making for the company.

Unless a manager is also a shareholder in an organisation, their role and responsibility during a transaction will be limited to executing instructions from the board of directors.

The CEO of a company is selected by the board of directors and must report on company performance to the board of directors (Phillips & Levitin, 2010).

2.5.3 Shareholders

If a shareholder is not on the board of directors and a shareholder does not have a management position within an organisation, this shareholder is an individual that has made a financial investment into a company and expects a return on that investment or the creation of wealth. Such a shareholder will have no authority in the daily operational activities of the company, but will have voting rights over whether the transaction will proceed or not. This is further explained under the section that addresses the legal guide to mergers and acquisitions in South Africa.

In the case of employee owned private companies, the shareholder in the company is also an employee and/or manager in that company.

2.6 A LEGAL GUIDE TO MERGERS AND ACQUISITIONS IN SOUTH AFRICA

Several local authorities and legislation regulates M&A activity in South Africa.

This section supports the previous sections on roles and responsibilities as it gives further insight with regard to the process of a transaction, the external approvals and considerations that must be given.

The main non-industry specific statutes regulating public company purchases generally are the Companies Act, 61 of 1973 (the “**Companies Act**”), the Securities Regulation Code on takeovers and mergers (the “**SRP Code**”), the JSE Listing Requirements (“**Listing Requirements**”), the Securities Services Act, 36 of 2004 (the “**Securities Services Act**”) and the Competition Act, 89 of 1998 (the “**Competition Act**”) (Valkin, 2009).

In the case of foreign buyers investing in South African companies, approval is required from the exchange control department of the South African Reserve Bank.

In South Africa, if a transaction involves a share purchase, there is no obligation to consult or obtain approval from the employees of the transacting companies. In the case of an asset purchase, there is no obligation to obtain approval of the transaction from the employees, however there is an obligation to notify and explain aspects of the transaction to the employees (Valkin, 2009).

2.6.1 The “Companies Act”

The Companies Act is the primary regulator of company and security law in South Africa with a vast scope:

- Indicates the level of shareholder approval required if a company is disposing of the majority of its assets or enterprise.
- Makes provisions to govern meetings of directors and shareholders during a transaction; and
- Administers protection against the oppression of minorities in general.

Bowman and Gilfillan published an expert guide to the introduction of the new Companies Act on 1 May 2011 in which the *statutory merger* process and shareholder appraisal rights are introduced for the first time, with the primary objective to facilitate business combinations (Yuill, 2013).

A *merger agreement*, in a manner that best meets the requirements of the two transacting parties must be reached. This sets out the terms and conditions of the transaction and includes the structure of the deal as well as how shares will be

handled. The *merger agreement* is subject to approval by 75% of the voting rights and must include any and all individuals that hold 15% or more of the voting rights in their own capacity.

Creditors must be notified and the application must be submitted to the Companies Commission.

All assets and liabilities are considered in the transaction including immovable assets and intellectual property.

2.6.2 The “SRP Code”

The SRP Code is applicable in transactions which will result in the change in, or consolidation of control of a company. The SRP Code protects shareholders in the context of a transaction to ensure that all shareholders are treated equally and fairly and are exposed to all competing offers and all relevant information in precedence of their decision.

The SRP Code in South Africa has a force of law and primarily applies to all public companies and only limited private companies (Geldenhuis, 2009).

2.6.3 The “Listing Requirements”

The “Listing Requirements” is applicable when a transacting company is trading on the Johannesburg Stock Exchange (Geldenhuis, 2009).

2.6.4 The “Competition Act”

A notification of a prescribed transaction requires the approval of the Competition Commission who prohibits various anti-competitive practices.

The Competition Commission (2014) notifies that intermediate or large mergers are reviewed under the act and that such a transaction may not be implemented until it has been approved with or without conditions.

2.6.5 Merger and acquisition mechanisms available in South Africa

Under the new Companies Act of 2011, a statutory merger process as described in the previous section is available.

According to Yuill (2013), a *sale of business* – in terms of the Companies Act of 2011 requires a similar resolution by the shareholders than in the case of a statutory merger. However in this case, the immovable assets and intellectual property is not included in the deal. The associated additional legal costs make this option less attractive for acquirers. This mechanism is only attractive when an acquirer wants to be selective in terms of the assets and liability transferred in the transaction.

A *scheme of arrangement* is a court sanctioned process. It is more flexible where any of the target's securities may be arranged. An acquirer will acquire a substantial amount or all of a target's shares. In this case, the transacting parties should issue an independent expert report to its shareholders for a special resolution that is similar to that of a statutory merger.

A *tender offer* is where an *acquirer* makes a mandatory offer for all the shares of the *target*. If 90% of the shareholders have accepted, the minority will be overruled and the directors are not entitled to any actions that will delay or frustrate the bid. A tender offer does not require the approval of acquirer shareholders nor does it give appraisal rights to any of the transacting parties (Yuill, 2013).

2.7 A SOUTH AFRICAN ECONOMIC OUTLOOK

By reviewing economic conditions in South Africa it is possible to sketch the current environment:

2.7.1 Demand conditions

The economy in South Africa has been increasingly volatile in the last 18 years and has been on a steady decline over, at least, the last 8 years (Statistics South Africa, 2014).



Figure 5: South African GDP annual growth rate (Statistics South Africa, 2014).

Gross fixed capital formation (GFCF) growth in South Africa includes land improvements (fences, ditches, drains, and so on), plant, machinery and equipment purchases and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings (Trading Economics, 2014). It can therefore be expected to have a strong positive correlation with the growth in the engineering and construction industry.

A definite correlation is seen between fee earnings in the engineering consulting companies and GFCF in South Africa (CESA, 2014).

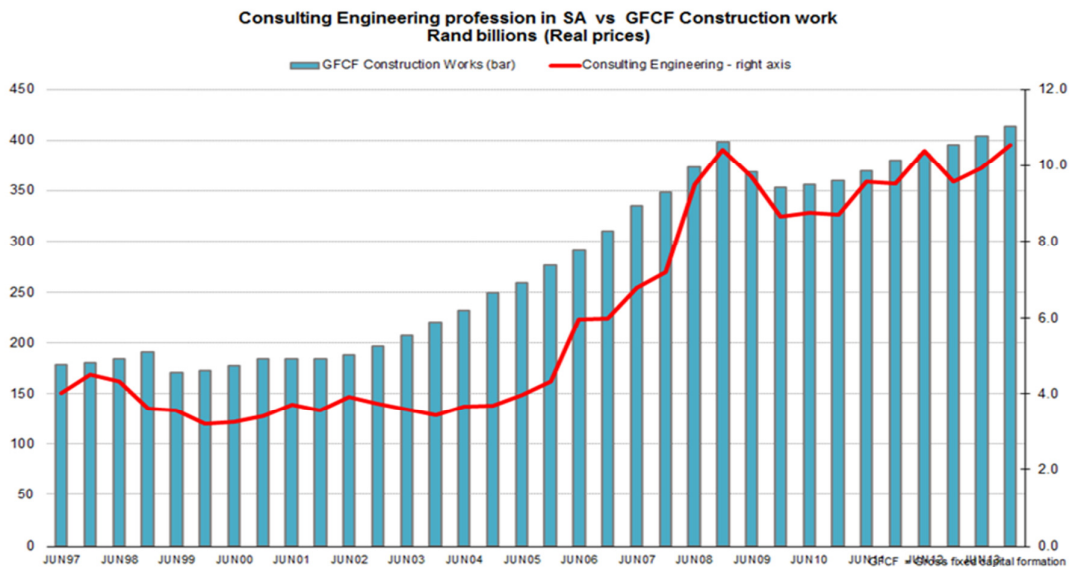


Figure 6: Fee earnings in the engineering consulting companies and GFCF ((CESA, 2014).

However, gross fixed capital formation is a measure of fixed investment spending and as a % of GDP in South Africa has shown slower growth rate in South Africa since 2009.

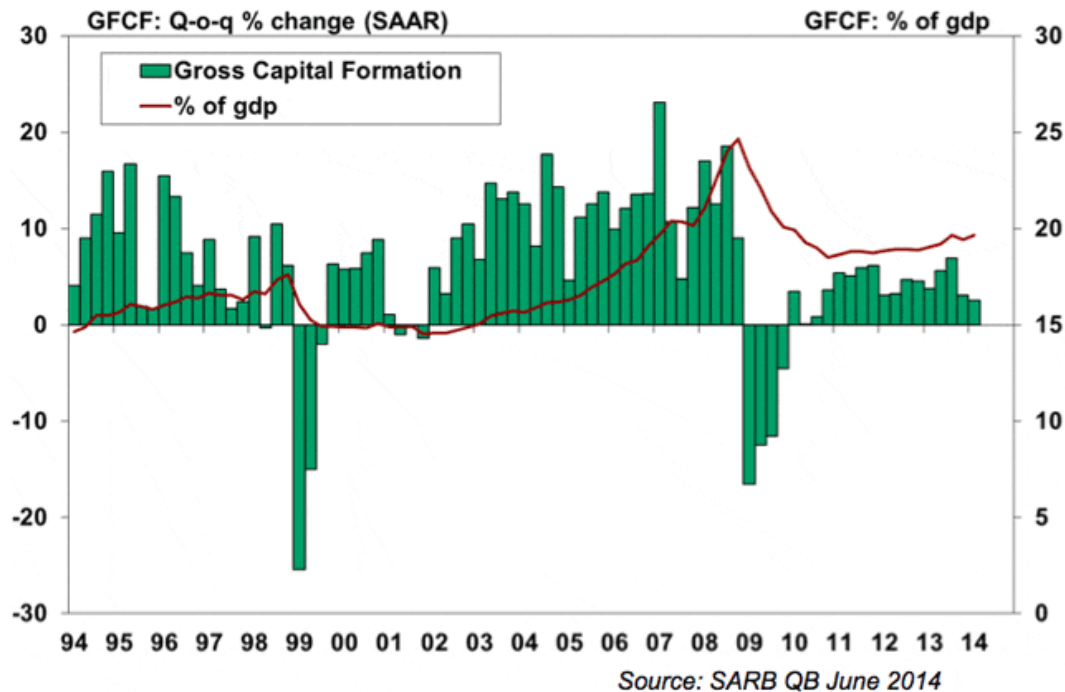


Figure 7: Gross fixed capital formation as a % of GDP in South Africa (SARB, 2014).

The slowed growth rate of GFCF as a % of GDP is considered a strong indicator of the stagnating growth in the engineering industry in South Africa.

The industry is severely impacted by the government's plan for critical infrastructure expenditure and the government's ability to realise the infrastructure expenditure plan. The turnout of slower economic growth than projected, continuous labour strikes and contraction in the manufacturing industry raises fear in the ability of government to deliver on planned infrastructure expenditure programmes.

The National Development Plan (NDP) in South Africa has been set as the official roadmap reducing poverty and inequality through inclusive growth and economic growth to a constant 5% by 2030. The plan targets skills development, bolstering the private sector's partnership with the government to address socio-economic issues and mass infrastructure roll-out.

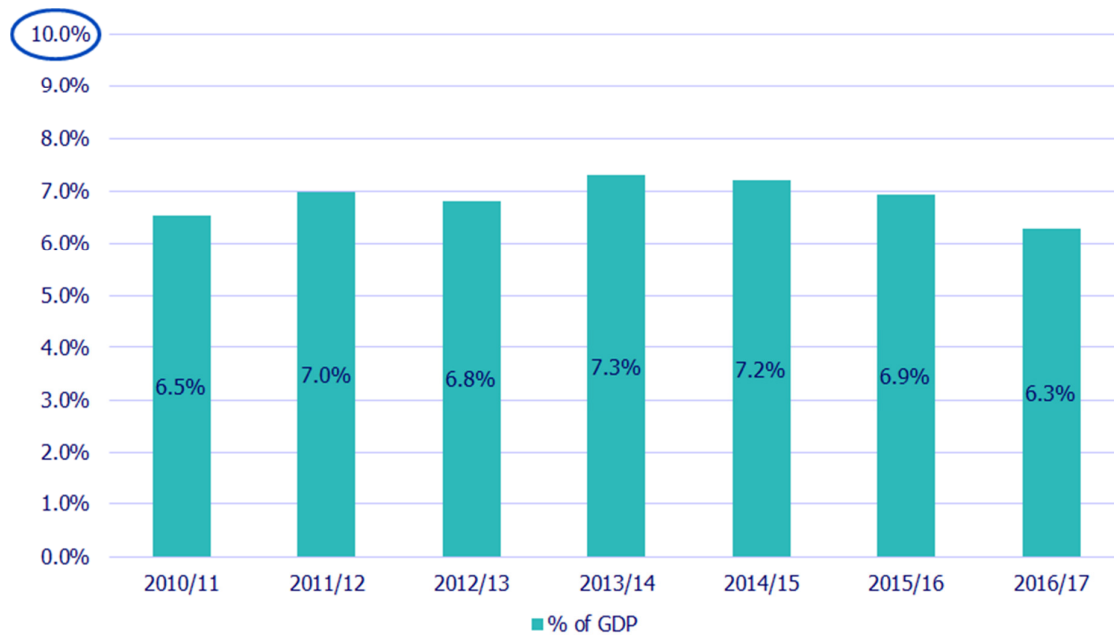


Figure 8: Infrastructure allocations fall short of NDP target (CESA, 2014).

In order to achieve 10% target, government will need to double infrastructure allocations over the medium term.

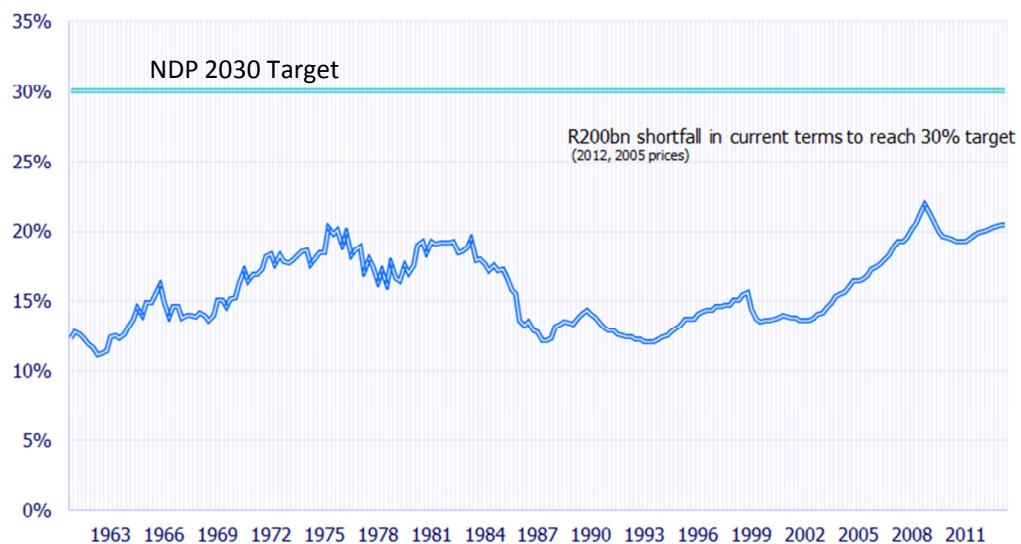


Figure 9: NDP specifies 20% target of GFCF to GDP (CESA, 2014).

Sporadic service delivery, especially power supply shortage in the last number of years, has not been good for the South African economy and the roll-out of the NDP - the infrastructure over expenditure and late delivery of the Kusile and Medupi power stations (Moneyweb, 2014).

Reducing foreign perception of risk in South Africa is a critical step to moving forward as set out in the NDP.

The situation in South Africa does not appear to deteriorate, however the rate of growth is not enough to ignite the recovery that is needed in the South African economy. Also the government expenditure budget, already below the construction cost inflationary projections, will result in serious implications for the construction industry (SAFCEC, 2014).

In a recent article in the Engineering News (2014), it is stated that South Africa avoided a technical recession, but sporadic economic growth was not enough to shake off economic stagnation, where a technical recession is defined as two consecutive quarters of negative gross domestic product (GDP) growth.

2.7.2 Factor conditions

The labour costs in South Africa have increased continuously and reached almost 100% between January 2006 and January 2014 (Statistics South Africa, 2014).



Figure 10: Labour cost trend in South Africa (Statistics South Africa, 2014)

In the engineering consulting industry similar upward trends are seen with labour cost increases in excess of the consumer price index (CPI).

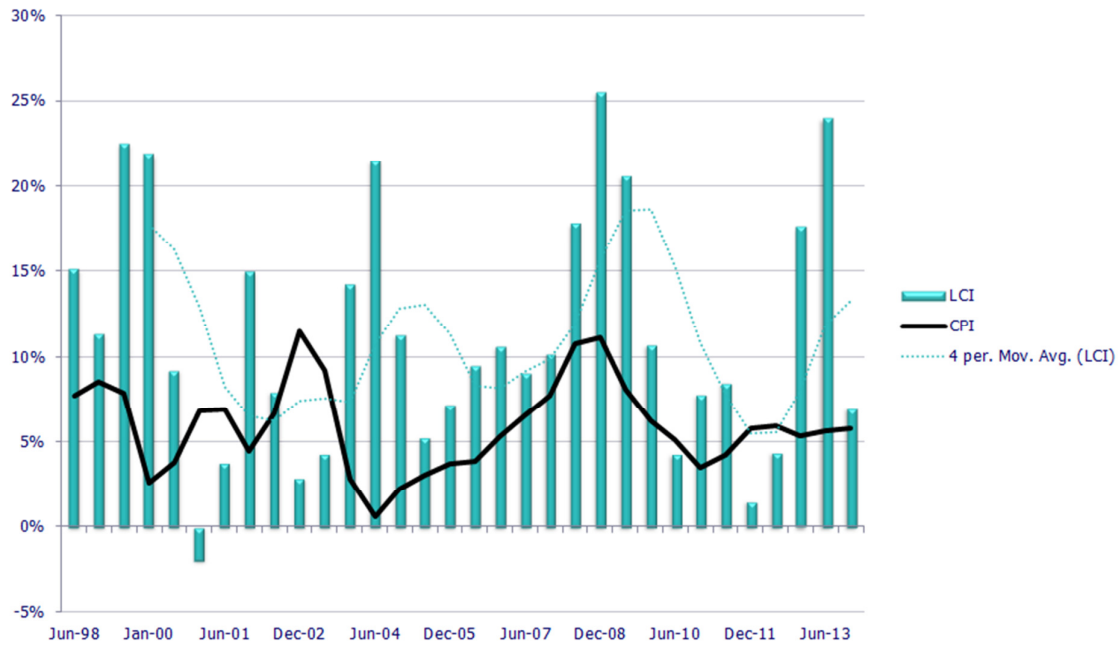


Figure 11: Labour cost indicator versus CPI in South Africa.

2.7.3 Firm strategy, structure, and rivalry

The cross-country differences in cultural, demographics and market conditions make strategy-making more complex when considering cross-border diversification.

Relevant strategy alternatives for entering new businesses or markets are:

New business development mechanism	Major advantages	Major disadvantages
Internal development	Using existing resources; Promoting corporate entrepreneurship.	Time lag to break even tends to be long; Unfamiliarity with new markets may lead to errors.
<i>Acquisition</i>	<i>Rapid market entry</i>	<i>New business are may be unfamiliar to parent;</i> <i>Cultural clashes;</i> <i>Parent processes might not suite local work conditions.</i>
Joint venture / strategic partnership	Exploit synergies Distribute business risk	Potential for conflict between partners.

2.8 MERGER AND ACQUISITION IN SOUTH AFRICA

2.8.1 Activity level in South Africa across all sectors

The Competition Commission (2014) publishes the activity level of transactions in South Africa on an annual basis.

The following graph indicates the activity level of approved transactions by the Competition Commission in South Africa over the last twelve years.

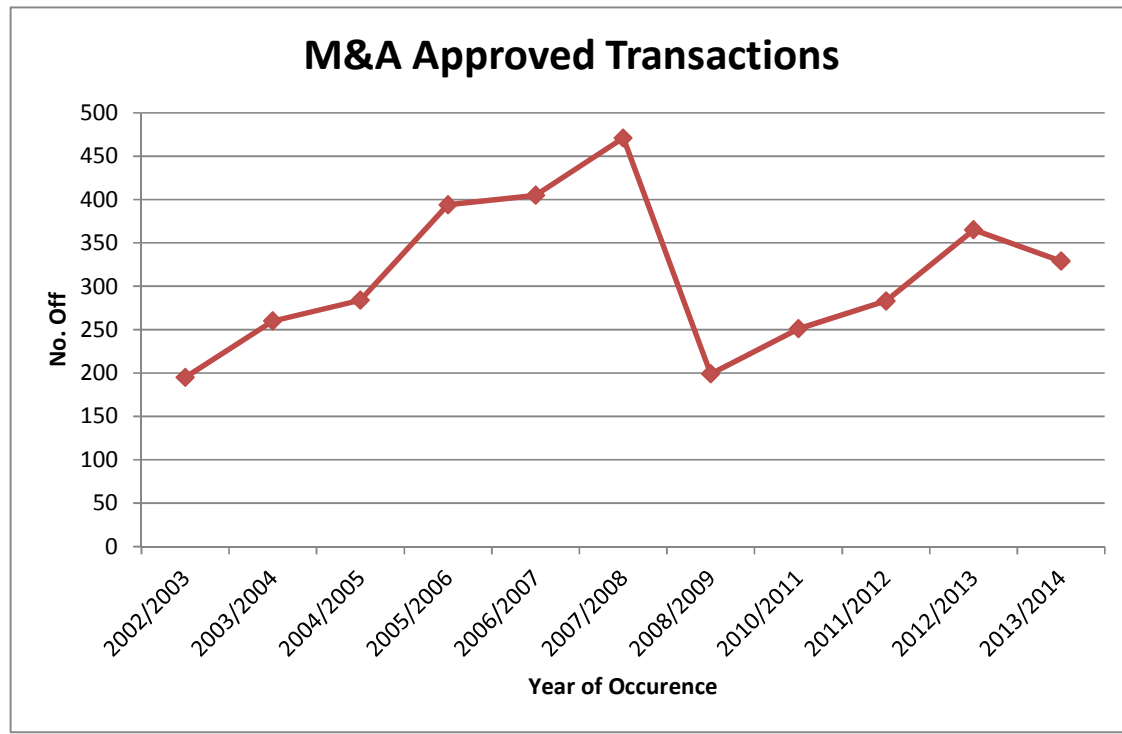


Figure 12: M&A approved transactions by the Competition Commission.

The economic recession saw a decline in activity levels towards the end of 2007 into 2008 and 2009, with growth levels again reaching a high towards the end of 2013 (Buthelezi, 2014). In South Africa, this trend appears to be similar, judging from Figure 12.

The appetite for M&A appears to be underpinned by an interest in the infrastructure sector, amongst others (Buthelezi, 2014).

According to Cron (2013), political uncertainty slowed M&A of corporate activity in 2012 and the ripple effects were felt throughout 2013.

According to Jones (2014), there is little real activity in South Africa considering that the JSE is at an all-time high. He also mentions that the 2014 presidential elections in South Africa delayed investor decision making in the first quarter of 2014.

An increase in M&A activity is solid through 2008 to 2013 which is predominantly the overlapping period of engineering consultant Industry consolidation relevant to this study.

2.9 CONSOLIDATION OF ENGINEERING CONSULTING INDUSTRY

A newspaper article indicates that the consolidation of the engineering consulting firms in South Africa were rather indicative of the consolidation of the global engineering and construction sectors.

2.9.1 Africa as the last frontier

In the last five to ten years, Africa has begun conceptualising as the last frontier in the global economy. This is fuelled by the debt crisis in the United States and EU recession, both of which show slow recovery.

In 2005, the Africa Infrastructure Country Diagnostic (AICD) as an unprecedented knowledge programme on Africa's infrastructure was established. The study, undertaken by the World Bank, covered data collection efforts covering network service infrastructure in 24 selected African countries. The report was published in November 2009 and targeted at policymakers and fed directly into discussions at the 2009 African union commission heads of state summit on infrastructure (African Development Bank Group, 2011).

This AICD estimates that investment of \$93 billion a year from 2010 to 2020 would be needed to close the infrastructure gap in Africa. The report further breaks down and indicate that one third of the value will be dedicated to infrastructure maintenance and a further two thirds of this value will be for construction and rehabilitation of infrastructure (Burger, 2013).

From 2001 to 2010, six of the world's ten fastest growing economies were in sub-Saharan African and on IMF forecasts; Africa will grab seven of the top ten places over the next five years (Economist, 2011).

Therefore, the attractiveness for companies towards Africa was evident.



Figure 13: Sub-Saharan African countries as fastest growing economies in the world.

2.9.2 The South African response

It is important to note that South African companies were working and earning income out of country and particularly in Africa, since 1994. This is prior to the consolidation activity over the last five years. Therefore, South African companies already had an existing footprint in Africa.

Consulting Engineers South Africa (CESA), in their biannual economic and capacity report indicates that fee earnings from Africa were approximately 10% to 11% of the total fee earning historically with drastic increase in the last five years (CESA, 2014).

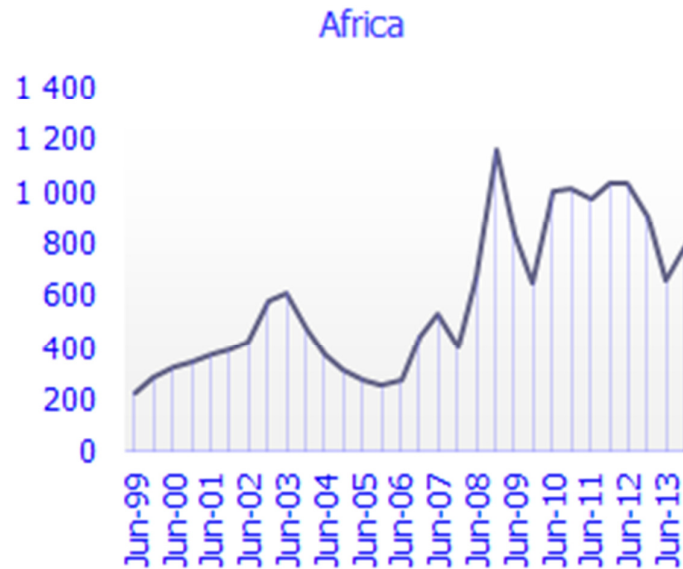


Figure 14: Fee income earned by province June 1999 - June 2013 - Rm real prices.

There has been a strong increase in corporate activity level in the South African engineering consulting industry in the last years (Burger, 2013). The occurring transactions are mostly cross-border with international groups teaming up with well-established South African entities to form African-based and focussed organisational platforms.

The consolidation of the engineering consulting firms accelerated through the merger and acquisition process, due to the significant rise of projects in Africa. These projects are giving opportunities to deliver matched commercial infrastructure projects along development corridors and at commercial nodes (Burger, 2013).

The cross-border nature of projects from South Africa into Africa would offer good opportunities, but at a higher associated risk. Through consolidation, companies were able to diversify their discipline offering and geographic footprint, placing themselves in a better position to handle volatility in projects on the African continent (Burger, 2013).

The activity levels in engineering consulting firms in South Africa in recent history are indicated in the graphs below:

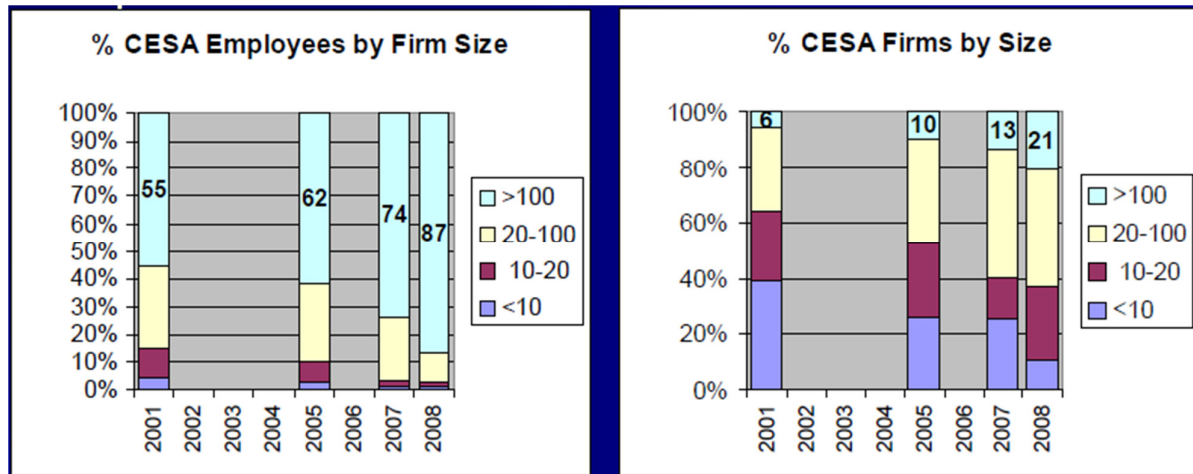


Figure 15: Consolidation in engineering consulting trends (Rohde, 2009).

From the graphs above it is evident that firm size with more than 100 employees increased and has stabilised during recent years.

2.10 DECISION MAKING MOTIVES IN MERGERS AND ACQUISITIONS

The section on success and failure elements of M&A transactions gives a clear indication that strategic and financial motives for a transaction do not always realise. Already in 1970, Thomas Hogarty concluded that mergers are a zero-sum, risky game – an attractive form of investment for those firms which managers are risk takers (Hogarty, 1970:389).

The question then remains that if M&A are not successful and not more profitable than any other investment, why do they continue to occur?

In history and according to theory, several motives for M&A are listed and discussed.

The following sub-headings contain a brief overview of each motive separately discussed:

2.10.1 Create a number of new business opportunities

The South African GDP rate has been volatile over the last 18 years. From an all-time high 7.3% in 1994 to a very low of -6.3% in 2009, it has stabilised at around 3% in the last few years and has steadily grown to almost 3.4% in 2012.

In the latest international monetary fund report, expected growth in South Africa was cut from 2.7% to 2.1%. The primary reasons are power supply constraint, continuous strikes and weak recovery in global demand (Maswanganyi, 2014).

Therefore, a stagnating and declining growth in South Africa made it necessary for South African companies to investigate new business opportunities across the border; independent of the South African economy.

Globalisation is driven by modern communication systems. Globalisation is seen as more than a simple way of doing business. It is a process that enables financial and investment markets to operate internationally. A globalised financial market has become an entity that can have an economic impact on more countries in the world than it touches (Jeffrey, 2002).

2.10.2 Synergy

According to DePhamphillis (2011:4), synergy is the notion when two or more companies in combination will create greater shareholder value than if they were to remain individual entities.

The M&A business case forecast is the foundation that provides insight and confidence to decision makers as they deliberate over investment decisions (Ruggeri, 2013).

PricewaterhouseCoopers (PwC) (2010) puts emphasis on synergy assumptions that must be accurately estimated and validated by the functional units that are responsible for hitting the targets. Care should be taken not to approach the diligence process as a simple checklist used to unearth everything that could be wrong with the *target*, but rather to uncover every possible variable or scenario that can break down the key drivers of value creation and risk.

PwC also stated that where synergy failed to meet its estimated value, it can be a matter of poor execution and not flawed strategy. For this reason, negative synergies that will realise during execution and integration phases of M&A should not be underestimated and thoroughly discounted in the deal making valuation process.

According to Strassman (2003), there is uncertainty whether pre-consolidation indicators are compared with post-consolidation results.

2.10.3 Economies of scale and scope

Economies of scale are realising cost reduction that can be recognised through spreading fixed cost over increasing production levels, co-location of offices and sharing overheads. (DePamphillis, 2011:4).

Company consolidations relying on cost synergies as opposed to revenue synergies in history have been more successful. According to PwC (2010) this can be because cost synergies such as headcount reduction, elimination of surplus facilities, etc., are more quantifiable and easier to identify and track. In contrast, revenue synergies which include marketing and selling of complimentary goods, cross selling into new markets, etc., tend to involve a greater number of variables and subjective assessments leading to careful strategising.

Business decisions require a good deal of judgment and decision makers are influenced by their confidence in the team and the process followed to provide the information they need to inform their team about the decision. The following key takeaways for decision makers are suggested: (Ruggeri, 2013)

- The goal of accurate forecasting should be replaced by a goal for quality forecasting – insight about deal terms and value realisation.
- Include the right complement of people with the right level of experience to exercise judgement.
- Ask the right questions in the right setting about what is driving value.
- Embrace uncertainty by following a risk-based approach.
- Get the best available data to populate forecast assumptions.

2.10.4 Market power

Market power suggests that a firm wants to improve their monopoly power in an industry and are therefore consolidating with smaller competitive companies to form larger entities (DePhamphillis, 2011:12). In essence, smaller competitive companies are bought out, therefore reducing competition in an industry.

When a firm plans to expand internationally, there may be cultural challenges and regulatory restrictions which would induce to rather acquire, merge or go into a joint venture with a local company.

The *Competition Act* regulates the mergers and acquisition approvals in South Africa. The identification of the affected market as well as the prohibited practices in

the effected market will be considered by the Competition Commission when they evaluate a transaction for their approval.

It is for this reason that a merger or acquisition initiative will require that an extended market or new market will be entered into by the new organisation.

The engineering consulting industry followed a specific consolidation trend.

The question should also be raised as to whether risk for shareholders are affected by M&A?

In a study to conclude whether horizontal integration would result in market power gains or reduce systematic risk, it was found that there was a lack of significant market power gains to be able to influence the product markets and there was little evidence that market risk was reduced post-consolidation. (Sharma & Thistle, 1996:50)

However, the spread of business risks are evident through the consolidation of two entities, especially if new markets are entered into and services or product offering can be diversified. Also, cross-border footprints would diversify some volatility in the activity levels of various geographic regions in the world.

2.10.5 Diversification / decreased diversifiable employment risk

Diversification means to expand into other businesses and is considered when diminishing market opportunities and stagnating sales are present. It is therefore a risk management technique used to overcome volatility or market changes by operating across several markets, geographical regions or industries. This means that a correlated earnings stream is now diversified to a combined earnings stream that is less volatile (Lotriet, 2014).

Diversification into related businesses has valuable cross-business value chain and resource match-ups. An unrelated business has dissimilar value chains and resource requirements, with no competitively important cross-business relationships at the value chain level (Lotriet, 2014)

Previous studies conclude that firms diversify when they have exhausted growth opportunities in their primary industry, but that such diversification strategies do not necessarily benefit shareholders (Lang & Stulz, 1994). Further, a 13% to 15% value loss from 1986 to 1991 from diversification was found by Berger and Ofek (1994:39-65) when they compared the value of stand-alone segments of a diversified firm against those of a specialised firm.

May (1995:1291) examined whether managerial motives influenced firm risk reduction strategies. He found that a manager's personal wealth risk, if a manager has wealth vested in a firm's equity, will influence the decision to diversify on company levels to reduce personal risk, regardless of the overall value proposition of the transaction for shareholders.

2.10.6 Industry wide corporate restructuring

Corporate restructuring is a term used to describe the actions taken to expand or contract the basic operations of a company or fundamentally change the management, asset and/or financial structure. A merger and or acquisition would be a single form of *corporate restructuring* which often leads to rationalisation of operations of the firms involved as well as renegotiation of the terms of employment.

Industry wide trends have economic consequences in that it often leads to plant closures and consequent redundancies, which often have a devastating impact on local communities. Industry consolidation, where acquisition is focussed to achieve market dominance or increased market power may be beneficial to the shareholder and manager, but is detrimental to the customer because of such reduction in competition.

Restructuring, when done effectively, reduces the cost base, create more efficient operations, effective processes and engaged staff. Thus, corporate restructuring should then inform economies of scale and scope and assist in realising the synergy that was estimated pre-transactionally (DePhamphillis, 2011:44).

In the United States in the 1980's the purpose of corporate restructuring was to produce a more focussed industry with specialised competitive firms in response to intensifying global competition (Hatfield *et al.*, 1996:55-72).

Markides (1993:1-15) argues that corporate refocusing is a natural response of firms to a more volatile external environment and a competitive capital market and that over-diversified firms will refocus and protect themselves against hostile takeovers.

It is only in the last twenty years that more nonrational motivations for corporate merger and acquisition activity have been proposed. The first indication of nonrational motivation was for "hubris hypothesis" introduced by Richard Roll in 1986. According to Roll (1986), hubris is a decision making bias that appears to occur when there is no rational or market related gains for a takeover; the phenomenon depends on the overbearing presumption of bidders that their own valuations are correct. Thus, a decision maker believes in his own valuation and considers the market to not reflect a full economic value of a combined firm.

In recent years, overconfidence and optimism have surfaced as common behavioural biases for decision making in mergers and acquisitions (Malmendier & Tate, 2008:1-20).

In a recent study by Bogan and Just (2009:13), there was a strong suggestion that confirmation bias, where decision makers are more likely to overemphasize information that supports their own view than information that counters their own view, is a key nonrational motivation for decision making.

The study by Bogan and Just (2009) presented empirical results that executives are less likely to change their minds after reviewing any new information and that executives specifically ignore integration issues.

2.10.7 Overconfidence bias

Overconfidence is the tendency of people to overestimate their knowledge, abilities and precision of their information. Researchers have tried to explain why overconfidence is so prevalent in most people, and more puzzling, why people fail to learn from past mistakes (Bhandari & Deaves, 2006:5).

According to Malmendier and Tate (2008:1-20), overconfident decision makers overestimate their ability to generate returns. The end result is overpayment for target companies and undertaking of value-destroying mergers. The difference between an overconfident decision maker and an empire building decision maker is that the latter will consciously disregard the shareholder's interest whereas the other believe that they are maximising value. In addition, independent directors might play a more active role in analysing information that pertain the transaction to compensate for overconfidence.

Bazerman and Moore (2008) describe two phenomenon of overconfidence. The first is the tendency of individuals to express excessive belief in their own capacity. Being too confident can lead to the blocking out of new information indicating alternative perspectives. The second phenomenon is the overestimation of the preciseness of knowledge, which leads decision makers to become overly optimistic about favourable outcomes.

2.10.8 Culture and risk aversion

The idea that culture influences managerial decision-making contradicts the traditional view of managers as disassociated agents undertaking shareholder value

maximising decisions and could explain why companies undertake seemingly irrational decisions.

2.10.9 Other managerial motives

Personal ambition is tied to financial incentives to short term growth or share price targets, boosting personal reputations and/or giving friends and colleagues greater responsibility or greater jobs.

The bandwagon effect is the scenario where managers avoid to be branded as conservative if they do not follow a M&A trend or shareholder pressure to merge or acquire.

2.11 SUCCESS AND FAILURE ELEMENTS OF M&A

Many researchers have to date investigated that more than half of M&A transactions does not end up economically effective and that anticipated acquisition synergies are not realised by acquiring firms (King *et al.*, 2004:192). King *et al.* performed a meta-analysis of post-acquisition performance and concluded that both acquiring and acquired firms realise positive return on the day of the announcement indicating a perception that combined synergy will realise over a long term period. However, the return for acquiring firms in subsequent years is either insignificant or negative.

If this is the case, the question should be asked what other factors influence success and failure of M&A transactions then over a longer period?

- According to Valkin (2009) the commercial terms of the offer is the prime influence on the success or failure of the bid. Also, the structure of the offer is critical. Offers which can be implemented speedily have a greater chance of success.
- Overpayment for the *target* where shareholders receive a substantial premium, generally around 30% to 50% of the price at which the target shares had been trading before the offer can have a negative long term effect if the estimated value does not realise (DePamphillis, 2011:39).
- Another view is that transaction making is 5% of the effort, where transaction roll-out is 95% of the effort. For this reason, the orientation of people in the transacting companies is crucial for the long term success of a transaction.

3. CHAPTER 3 – RESEARCH METHODOLOGY

The chapter will discuss the research methodology that was followed in the empirical research study and will highlight the difference between what was planned for at the start of the research and what actually occurred.

A more detailed explanation of the research strategy and research procedure that were followed during the interviews is included.

The data analysis methods that were finally used to analyse the data as well as the interpretation methods that were used are provided. The chapter will end with pointing out the limitations of the study and a discussion on the validity and reliability of the study.

3.1 RESEARCH METHODOLOGY / PARADIGM

This study employs a qualitative research strategy. This type of research strategy allows the detail determinants underlying the case or situation to be explored.

By employing a qualitative research strategy, the empirical research could be approached in a more semi-structured manner and this allowed the deeper exploration of pertinent issues surrounding the research topic and context.

Phenomenology is the study of an experience from the perspective of the individual. This is important because the research sample is individuals and it can be said that it is based in a paradigm of personal knowledge. It therefore emphasises the importance that the findings can be influenced by personal perspective and an individual's interpretation.

Qualitative research emphasises words as opposed to numbers and measurements and this approach was found to be best suited as this research study is concerned with the understanding of a subjective experience and gaining insight into people's motivation and actions.

The study aims to highlight the value of initially focussing on the individual decision maker to begin to explicate a process that is not only an individual process. Each finding listed in this research study, can be used as a basis for broadening research in future beyond the individual level.

3.2 RESEARCH DESIGN

The research design uses a multi-case study design in that participants in this research study are employed by different consulting engineering companies. This means that each participant interviewed was involved in the consolidation transaction of their respective companies. Therefore, it does not follow the traditional multi-case design which determines similarities and differences between the cases or similarities and differences in the same case but from different perspectives (Bryman, 2012:59). It rather lends itself as a single case study, which is the consolidation of the industry, and this is approached by input from individuals that were involved in various transactions and placed more emphasis on full contextual analysis and the associated dynamics.

The findings of this study are duplicated across most of the answers obtained during the interviews. This tendency gives a form of validity to the findings that was gathered from multiple individual perspectives. It was initially planned to include more than one individual per case or company, but this was not achieved in most cases due to a time constraint and access.

3.2.1 Research procedure

Interviews were the primary research instrument used during the empirical research.

Six potential participants were initially identified through well-established networks in the engineering consulting industry.

Potential participants were contacted via telephone as far as possible and where it was not possible they were contacted via e-mail. The focus of the initial conversation or e-mail was to introduce the research topic, objectives and questions. Where telephone conversations were the first point of contact this was followed up with written communication in all cases.

If a potential participant agreed to contribute to the research, a request for an interview was communicated and accepted by both parties.

The location of the interview was prescribed by the participant and took place during working hours and at the workplace of the participant in most cases. In other cases interviews took place over weekends and in a public place that was most appropriate and convenient.

At the start of the interview the research hypotheses were described and findings to date were briefly summarised to the participant. It was important at each interview to

declare that the researcher is employed by one of the engineering consultant firms in South Africa. It was also important to ensure the participant of the ethical considerations in place for the study and that it is not a multi-case study design where the various consolidation transactions will be compared between the various companies. It was necessary to also ensure the participants that it is not the intention to uncover any raw data that might expose a company's competitive advantage to the next.

The research questions were posed to the participants in a sequential manner. In most cases the participants described their experiences in an unstructured manner and the data had to be grouped during the data analysis process.

3.3 POPULATION AND SAMPLE

3.3.1 Population

The population of the study is clearly defined as key role players with a responsibility to make strategic, financial and/or commercial decisions in a company and individuals who directly faced decision making in the context of this study.

3.3.2 Sample

The sample is individuals that are strategic, financial and/or commercial decision makers in their respective company. The larger multi-disciplinary engineering companies in South Africa that have recently been involved in consolidation was prioritised and participants from these companies are included in the sample size. The sample size included individuals who directly faced decision making in the context of this study.

All of the participants are involved and/or employed in the engineering consulting industry in South Africa.

Multiple data sources are covered. The sample size includes managing directors, chief operating officers, chief financial officers, top management personnel and objective commentators in the field.

For this study, twelve interviews or questionnaire respondents or data points were obtained.

Time limitation, availability of other potential participants and other minor challenges influenced the eventual number of participants interviewed.

Table 1: Profile of the participants

Description of respondent type	Number sampled
Managing director	5
Chief operating officer	3
Industry specialist / objective commentary from the field	1
Top management	3
Total	12

3.3.3 Sampling method

The number of participants was influenced by purposive sampling where the sample size was continuously determined on the basis of theoretical saturation of the study. Purposive sampling is a method of sampling participants to be relevant to the study and the research questions, whom are chosen in a strategic manner. This is one of the most common sampling methods in qualitative research (Bailey, 1994; Bryman, 2012; Guest *et al.*, 2012).

The sample size expanded through referrals by one participant to another. Thus, the snowball effect that was original planned for occurred during the empirical research. Referrals from one participant to another was particularly useful as this way direct contact could have been made with the correct individual that was involved in the consolidation activity of their respective company. Referrals were also beneficial in that the referred to participant could immediately identify with the referrer and have more confidence to agree to contribute to the study.

3.3.4 The research instrument

This study employed an in-depth one-on-one interview. The interview followed a semi-structured approach. Interviewing is the most common research instrument for qualitative research and its flexibility makes it so attractive (Bailey, 1994; Bryman, 2012; Guest *et al.*, 2012).

It was important to capture insights and points of view that would be comparable between participants and for this reasons the research questions, as highlighted in Chapter 1, formed the basis of the discussion.

Each interview uncovered the subject of decision-making more and more. Therefore the rolling-wave was leveraged on every succeeding interview probing for specific answers and focussing on important and recurring aspects.

The semi-structured approach made it flexible and not restrictive to a specific sequence of questions. An interview lasted between 45 and 60 minutes.

In instances where an interview was not possible due to unavailability of participants, a questionnaire that focussed on the recurring aspects was forwarded to the participant. The participant then responded to the questionnaire and the data was captured in this way. Where an answer was not very clear to interpret, a return correspondence was sent to the participant requesting for further clarification.

Interviews were captured on hardcopy and recorded for safekeeping where participants agreed to it at the start of the interview. Recorded interviews were transcribed after the interview and an example is attached in the annexures.

Care was taken not to:

- Harm respondents physically or developmentally.
- Induce loss of self-esteem or stress.
- Entice participants to perform reprehensible acts.
- Deceive participants.
- Invade participant privacy.

3.3.5 Data analysis and interpretation

Data collection and data analysis occurred simultaneously. After each interview the information that was obtained was immediately transcribed, interpreted and returned to the research questions and objectives to ensure that the study remained focussed on its original targets.

Specific data analysis techniques that were used during the data analysis are:

Coding and data fragmentation

Coding is the segmentation of data into various categories and then assigning specific codes or labels to these categories (Bailey, 1994; Bryman, 2012; Guest *et al.*, 2012). Coding enables segmentation of the documentation to inform the relevant research questions. Finally, coding enables the discussion of similarities and differences and the comparison of the relationship between one or more segments of

the various respondents and blending it with the theory in the literature review. Coding may also help in the generation of theory (Bryman, 2012).

Coding was done as the research progressed and reviewed on a constant basis. From this parallels were drawn to the theory and this informed the discussion of the findings.

Thematic and content analysis

Thematic analysis is one of the most common methods used in qualitative research (Bryman, 2012; Guest *et al.*, 2012). It is similar to coding because data is categorised into themes as it relates to the research focus and research questions which build on the codes identified, to relate it to the theory in order to gain deeper understanding of the data.

Themes and sub-themes were identified and generated using the transcripts and identifying recurring motives in the text as described by Bryman (2012) and Guest *et al.* (2012). The themes were analysed for the individual case, as well as across multiple cases and was used to finalise the frequency tables that are highlighted in the findings. From thematic and content analysis logical findings, conclusions and recommendations can be drafted.

Content analysis is the systematic quantification of the content of data, particularly documents or text (Bailey, 1994; Bryman, 2012). Content analysis is used to identify themes and topics that inform the relevant research questions. The research looks at repeating words, subjects and themes in the interviews. Content analysis also highlights content that was perhaps not discussed by all respondents.

3.3.6 Strategies employed to ensure quality data

Quality control at the time of data collection as well as after data collection was critical.

It was important to align literature, research objectives and findings. During the research period it was necessary to continuously cross-check these three elements to ensure quality and relevant data were captured into this study.

The process to ensure this was:

The literature research informed the research objectives and was continuously aligned. This way, it informed the semi-structured nature of the interview. .

Transcripts from the interviews were recorded within 48 hours from spending time in the research setting. Data interpretation took place during transcribing and also, in turn, informed the expansion of the literature review.

Recording and registering of all data and documentation were expanded and kept as it continued to grow from interview to interview.

3.3.7 Ethical considerations

Anonymity remains crucial.

Disinfected information is only captured in the final study with raw data kept within the database.

The following key ethical considerations have been identified and were used during this study:

- Respect for those who developed the literature research that was studied and reviewed. Self-interpretation is limited and kept to a minimum where it cannot be supported by other research.
- Respect for the individuals that participated in the study.
- Informed consent, whereby people were informed about what it meant to participate in the research and could decide in a conscious and deliberate way whether they want to participate.
- Protect confidentiality at all times.

3.4 **VALIDITY AND RELIABILITY**

Trustworthiness and authenticity are measures for qualitative research similar to reliability and validity (Bryman, 2012).

External validity

External validity, or generalisability as it is also known, is the extent to which findings can be extended to other populations and contexts. Transferability is the qualitative equivalent for external validity (Bryman, 2012). The literature review extensively covers the context of this study theoretically. This was done to give sufficient information about the context to the reader. The discussion of the findings connects the findings to theory and previous similar research. This effort should address transferability in a sense that the readers have sufficient detail to decide for

themselves whether the findings can be extended into another environment and context.

The minimum of one, and in most cases only one participant per company or case, means that the sample might not be representative of the larger decision making community in a company. Although, findings duplicated across data obtained from most interviews and this indicates that prevailing motivational variables were present in this context.

Approaching the research from multiple individual perspectives it hopefully will at least provide insight into the dynamics of decision-making in a particular case that will contribute to the findings of the larger sample size.

Thick and rich descriptions are used to convey findings, including context, settings and culture captured during the interviews. The researcher's bias is made clear in the conclusion of this study where a self-evaluation of the research is presented. All interviews was conducted and transcribed by the researcher, ensuring consistency.

Internal validity

Credibility is the qualitative equivalent for internal validity (Bryman, 2012).

The questions were pretested with supervisors and colleagues and were intended to unlock the information that will provide answers to the research questions.

The findings are presented and supported by direct quotes of what actually was said in the interviews as opposed to the mere interpretation thereof.

Where interpretation did occur, it is important for the findings to be as close as possible to what was intended and for this reason the findings was circulated back to the participants to evaluate and comment on.

Reliability

Dependability is the qualitative equivalent for reliability (Bryman, 2012). Qualitative research is not primarily concerned with replicability and validity is more important than reliability (Creswell, 2003; Guest *et al.*, 2012).

The more flexible and inductive nature of the qualitative research design, combined with semi-structured interview will not necessarily deliver the same results across different individuals or time. The research process and study therefore aims to be transparent in describing the process followed throughout the research process to

allow the reader to self-assess the validity and credibility of the study findings and interpretations.

3.5 LIMITATIONS TO THE STUDY

Qualitative research is often criticised for being too subjective, not replicable and cannot necessarily be generalised. The latter is specifically true for this research study, but a contextual understanding will be gained.

Because an interview research instrument is used, accessibility to respondents may be a challenge and may offer less assurance of anonymity for respondents, which may deter some from participating in the study or being completely open and honest during the interview. The interview study is prone to bias and interpretivism. The interview questionnaire is only semi-structured, so interviews may vary and respondent answers will most likely be difficult to compare.

As coding and data fragmentation will be used for data analysis, there is a possibility of losing the context of what was said in the interviews (Bryman, 2012). Reliability is generally of concern with thematic data analysis, as the researcher is open to interpretation of and defining the codes and themes, but Guest *et al.* (2012:11) believe that it still is the most appropriate method to capture the “complexities of meaning in a textual data set.”

Chapter 4 contains the empirical findings the study. The research methodology as described in Chapter 3 was followed and 12 participants were interviewed. The data as analysed is presented and further discussed in Chapter 5.

4. CHAPTER 4 – FINDINGS

The approach is to address all the research questions posed in Chapter 1 and conclude in terms of the discussion in the next chapter.

The data obtained from the interviews is constructed around larger themes that could be identified from the content analysis and is then further explained at the hand of the underlying factors.

Frequency counts are presented in charts and are included for each larger theme to highlight the recurrence of a similar response from one participant to the next.

Larger emphasis is placed on the data and findings that relate to the research questions although data that extend beyond the defined scope of this research study was obtained.

Direct quotes from participants that exemplify a repeating idea are included as well as quotes on any exception to a repeating idea to illustrate a minority opinion.

It is the underlying factors that are used to construct a logical chain of evidence that leads to the discussion and conclusion of this study.

4.1 MOTIVATIONS AND INFLUENCES

The first research question is about what motivates and influences a decision. During the interview this question was posed by the researcher as outside of the context of this study. Thus, the question was explained from a broader perspective and it was requested that participants describe, from their experience, what the factors are which motivate any decision and what the factors are which influence decision-making in general.

The following direct quotes from the interviews highlight the general motivational variables and comments made with regard to decision-making:

- *“It is important not to make decisions in a vacuum. Therefore, any decision must be placed in context and must be interpersonal. It is important for management culture to be allowed to prevail.”*
- *“A decision is one person making a decision after he gets input from all other people. In larger organisations it must be clear who is responsible for the eventual decision.”*

- *“The unemployment nature of South Africa should put a constraint on how business leaders make their decisions.”*
- *“It is important as a business leader or manager to be decisive. Therefore, to make a decision, even if it is considered a wrong decision.”*
- *“A decision is made in context and is made in a specific time. It cannot be reversed without consequence.”*
- *“A decision also depends on whose lens you are looking through and whether this is business or personal. You have to understand why you are required to make a decision in the first place.”*
- *“Success needs to be defined and only then can the decision be measured against the indicators (targets and objectives) that were identified at the beginning. Define what success will look like at the start.”*
- *“When you make a decision one will do it with all the knowledge and factors that are available at that time. It is not obsolete.”*
- *“To ask for input does not disempower one to take a decision.”*

Context and complexity inform and influence the basis on which a decision is made. The first step in decision-making is to recognise the opportunity or the problem to respond to and have an understanding of why a decision is required in the first place.

In a leadership or management position, indecisiveness can be perceived as procrastination and it is important to make a decision, even if it is a wrong decision.

Decision-making, as described by the participants, indicated that it is vastly influenced. The influencing factors described by the participants are grouped into the following overarching themes and the underlying factors plus direct quotes to each theme are then included.

- Personal disposition.
- Knowledge skills and experience.
- Desired outcome and
- Environment.

4.1.1 Personal disposition

Personal disposition is described by means of the following underlying factors:

- The decision making approach differs from individual to individual.

- The individual's characteristics and values are important influencing factors.
- The management style of the individual is an important influencing factor.

The following direct quotes from the interviews in support of this theme are included below:

- *"The will power and vision of an individual to achieve a desired outcome will exceed and overwrite any decision making process that is prescribed."*
- *"An individual must have the vision and the will to see past challenges to overcome in order to achieve the objectives."*
- *"When you know the individual, you will know the decision."*
- *"It is important that decision makers know themselves to know where their strengths and weaknesses are."*
- *"A natural person is subject to external influences, own perceptions and optimism and pessimism exerted on information."*
- *"A good decision maker must be willing to make a decision, not be afraid to make a wrong decision and not have a natural fear of failure."*

4.1.2 Knowledge skills and experience

Knowledge skills and experience is described by means of the following underlying factors:

- An individual requires a deep knowledge on the subject for which the decision is required to be able to identify the opportunity, define a clear set of objectives and make the correct decision.
- On top of knowledge and experience, an individual's healthy ability and judgement will influence his or her ability to make a good decision in a split second.

The following quotes from the interview in support of this theme are included below:

- *"The complexity of the decision drives the skill set that is required. The more complex it is, the more skills and attributes an individual needs to deal with it."*

- *“Does a person have the ability to define the decision criteria that will lead to a good decision and the ability to evaluate alternatives at the hand of the decision criteria”?*
- *“There must be a realisation of risk in every decision by the individual that is tasked to make the decision.”*
- *The emotional intelligence of decision makers will have an impact on their ability to make decisions or the way in which they make their decisions.”*
- *“Gathering information and facts is very important. A person should be compellingly clear when one has to relay to another individual the basis on which the decision was made.”*

4.1.3 Desired outcome

Desired outcome is mainly described as *pull factors* that will influence the decision maker to choose one alternative over a next alternative.

The following quotes from the interviews in support of this theme are included below:

- *“A defined and clear set of objectives in the early stages of the decision making process are imperative to achieve the desired outcome.”*
- *“A desired outcome will influence the path of decision-making of an individual.”*
- *“Should a person have a list of expectations at the start of a decision making process, there exists a higher probability to reach the expectations.”*

4.1.4 Environment

Environmental influences are described by means of the following underlying factors:

- Management culture of a company which is the underlying behaviour of the individuals in a company when acting in their role as individuals or in a team.
- Ownership structure of a company which represents the shareholders in a company. In instances of employee-owned companies, this influence is more evident.
- Generation of management – whether a key decision maker is the founder of the company or a successor.

The following quotes from the interviews in support of this theme are included below:

- *“There are commercial influences and extenuating factors to any decision.”*
- *“Management culture and ownership structure influence a decision. Within a management style and ownership structure there is a historic sense with regard to considerations that are given during company decision-making.”*
- *“A management ownership structure automatically creates an expectation of consultation in all management decisions that are made.”*
- *“The ownership format is more important in a smaller size business when decision-making resides with the owner-managers. Managers do not take decisions on ownership and shareholders are not decision makers if they are not the managers. Decision-making sits within your function as a manager in the business.”*

The recurrence of responses out of a potential twelve participants is summarised at the hand of a frequency chart in Figure 16 below.

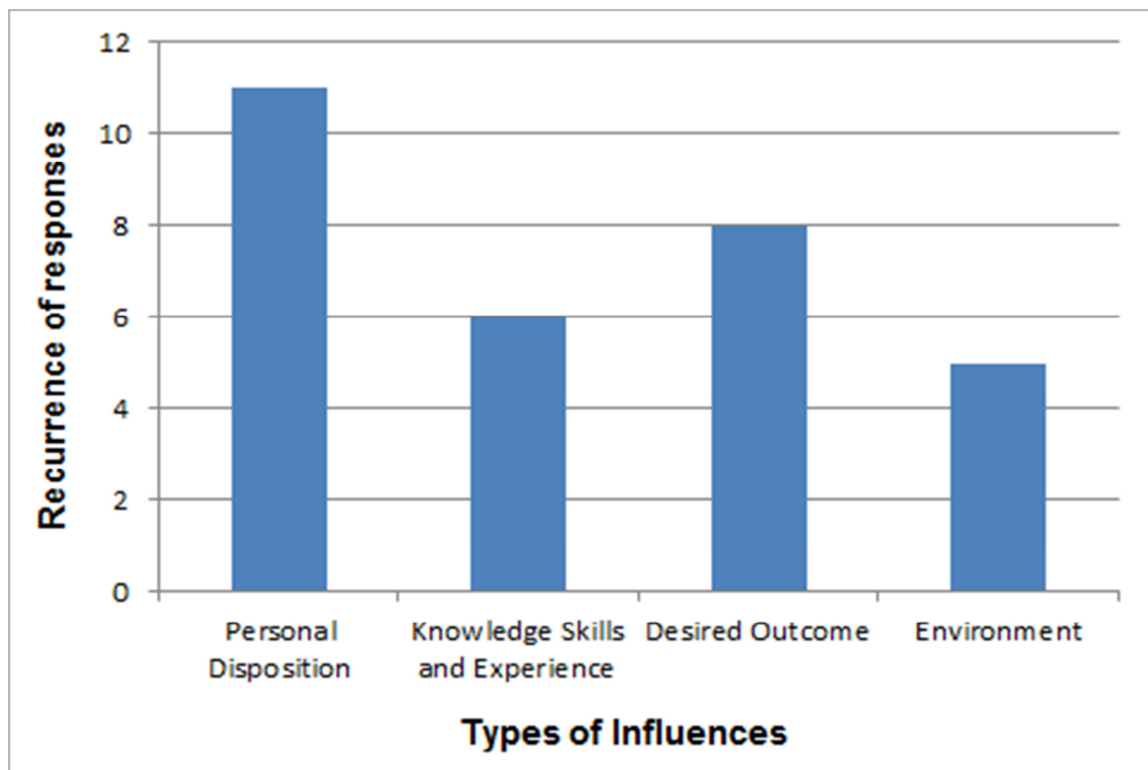


Figure 16: Influences on decision making – frequency chart.

Personal disposition occurs most of all influences that was described by the participants.

Knowledge skills and experience were more described as an influence that is dependent on the complexity of the decision and some participants felt that a natural inclination of an individual will have a higher influence on decision making than an extensive skill and experience. Therefore the recurrence thereof is indicated as slightly lower.

The desired outcome was described less than personal disposition, but still the second most times. Limited direct quotes were obtained in support of this overarching theme. The participants confirmed this by a “yes” answer in most of the cases.

The environmental factors were considered a lower level influence on decision making. Aspects such as management culture, ownership structure, rules of engagement and delegations of authority were considered an influencing factor by some, but were also described as tools for corporate decision-making by other participants. For this reason the recurrence thereof is slightly lower.

4.2 KEY ISSUES THAT COMPANIES WERE FACING

The findings that relate to the second and third research questions are all grouped and presented here in section 4.2 of the findings.

The findings that are highlighted are considered the reasons for consolidation activity in the engineering consulting industry in South Africa as well as the reasons why large South African engineering consulting companies have been merged or acquired.

A number of key issues that companies were facing were described by the participants and these are considered primary push factors that could no longer be ignored. The key issues that are presented are separated from the objectives and outcomes that are highlighted in section 4.3 of this chapter.

The key issues presented below are a collective list of findings described by all participants although the level of recognition to each underlying factor varies from participant to participant. Therefore frequency counts are presented in a chart and are included for each larger theme to highlight the recurrence of a similar response between the participants.

4.2.1 A change in the market conditions

The global market of the engineering consulting industry has been changing because of the demand of clients to consult with a one-stop shop service provider.

It is not confirmed that the size and complexity of projects have increased, but clients have been seeking larger size companies to share project risk and provide insurance on large projects. This is associated with the need of project developers to share project development risk with their service providers.

The following quotes from the interviews are provided in support of this theme:

- *“Clients are reducing in-house teams and in-house design capacity and are outsourcing this to the market. For this reason clients can perform limited co-ordination function between entities and disciplines and are now looking for a one-stop shop service provider.”*
- *“It enables the new global group to capitalise on the many large, integrated project opportunities and perhaps more importantly, from a client perspective, ensure improved service delivery capabilities, especially on large, integrated projects.”*
- *“Growth was unavoidable if a company wanted to stay globally competitive.”*
- *“Clients will only deal with the big boys who can share some project risk.”*
- *“Dollar-rand exchange rate, a lack of global expertise, older shareholders and a better share value and lack of middle management were motivational variables why M&A occurred.”*

An alternative view gathered from the interviews is that the change in market conditions as described above, alone, is not considered a strong push factor towards consolidation. A similar function could be fulfilled by two or more companies forming a project specific partnership to serve the needs of a client.

4.2.2 Macro-economic conditions

From approximately 2007 to 2008, a global recession was recognised. In South Africa the predicted growth rate has not been achieved and infrastructure spent has not realised as indicated in the National Development Plan.

Economic downturns and cycles are described by the following quotes:

- *“In historic business cycles, companies in South Africa endured many tough financial positions and several South African companies have faced bankruptcy.”*
- *“Initiation of the consolidation activity can be prescribed to the EU crisis and definite possibility in the Third World countries and predicted growth in Africa.”*
- *“Africa has not been on the radar of global companies until recently. This is stimulated by the EU crisis and stagnating growth in the United States and other parts of the world.”*
- *“Global economic downturn developed the need for global consolidation trends in the industry.”*
- *“Approaches by multi-nationals to acquire in South Africa started more than ten years ago, but at that time it was not further pursued by South African companies. At that time the environment was not so desperate and might be a strong reason why transactions did not progress or conclude.”*
- *“Spending on infrastructure planned in South Africa has not realised as indicated in the National Development Plan.”*
- *“Backlog on infrastructure spent, corruption and sporadic service delivery contributed as motivational variables for the industry to move towards consolidation.”*

4.2.3 Global trend

Consolidation of engineering consulting companies globally indicated that a similar trend in South Africa could no longer be ignored.

The impact of globalisation is high with modern communication systems and processes that enable financial and investment markets to operate internationally.

South African companies were therefore forced to deal with it and could not ignore a response to this worldwide trend any longer.

The following quotes from the interviews in support of the theme are highlighted below:

- *“Consolidation changed the way in which South African companies previously operated. Historical partnerships and joint ventures were formed specifically for larger projects and to serve the need of a client. With the consolidation activity, companies were losing historic partners and options for future partners.”*

- *“For South African companies, it became apparent that consolidation was unavoidable if one was to play on a global scale.”*
- *“Global trends had an influence.”*
- *“Critical mass present at conferences had an influence. The question was that, if consolidations are global, why should it not be local as well?”*
- *“Management consulting industry followed a similar consolidation trend a number of years ago to enable them to service global clients. At that time the questions were asked whether it will happen to engineering consulting as well?”*
- *“Critical mass present at conferences, large complex projects that became obvious and a requirement for a diverse skill set were globally recognised.”*
- *“Worldwide consolidation trends were visible and could no longer be ignored.”*

4.2.4 Access to growing economies

Africa was branded as the last frontier for development and companies had to be seen to respond to predicted growth figures for African-country economies.

Fatigue of the tender system in South Africa, cut-throat discounts on regulated professional fee rates and excessive client expectations from service providers are key issues companies have been facing.

Several participants described the need for access to capital that is required to grow and diversify from the current state even though most South African companies had already established a footprint in several African countries.

Growth predicted for African economies was fast and the required response rate of companies to service the demand was required almost immediately.

Employee-owned companies with a number of large shareholder managers resulted in a high retained capital stuck in the business that would be very expensive to liquidate.

The following quotes from the interviews in support of the theme are highlighted below:

- *“The estimated working capital requirement for a South African company to enter a risky and emerging market and remain sustainable was not financially achievable without the capital support of a larger holding company.”*
- *“The debtor service days for South African companies historically were more than sixty days and in Africa it was anticipated to be more than hundred and twenty days.”*
- *“Desperate discounts given in the market and the tender system are leading to desperate cash flows for South African companies.”*
- *“A risk of money is involved for companies to chase large opportunities in Africa.”*
- *“Independence of the South African economy that struggles to deliver on growth predictions.”*
- *“Africa is seen as the last frontier for which funding is now becoming available from private sources and is no longer just aid-funding.”*
- *“Exchange rate volatility of working in Africa was seen as a large risk for companies and possibly contributed to the approach to share bottom line risk with a larger multi-national going into Africa more aggressively.”*
- *“Companies in South Africa had to grow if they wanted to compete globally.”*
- *“Resource constraints were realised if South African companies wanted to compete globally.”*

4.2.5 Human capital retention

Human capital retention as it was described as a key issue and herewith referred to as that expensive capital, contained in a business by longstanding owners of the company was expensive to liquidate. Therefore it was difficult for younger employees, with an ambition to be a shareholder, to obtain shares in the company and afford to pay for it.

Companies continuously face the risk of losing key players in an organisation and experience the need to ensure that people are incentivised and given sinful positions and an opportunity to pursue ownership if they wanted to.

The following quote from the interviews in support of the theme is highlighted below:

- *“Talent retention people’s careers in a professional company – ambition to be part of the owners of the company, the expensive capital made it difficult to sell their shares to somebody else / lack of middle management.”*

The objective and desired outcome to provide young people with opportunities to work on large integrated projects are not included here and are highlighted elsewhere in the document.

The fourth research question was: What was the importance of worldwide industry consolidation trends, a weak South African economic outlook and a change in market demand?

The findings of the fourth research question are highlighted at the hand of the frequency count of recurring responses by participants. The frequency count is indicated in Figure 17 below.

The recurrence of responses out of a potential twelve participants is summarised at the hand of a frequency chart in Figure 17 below.

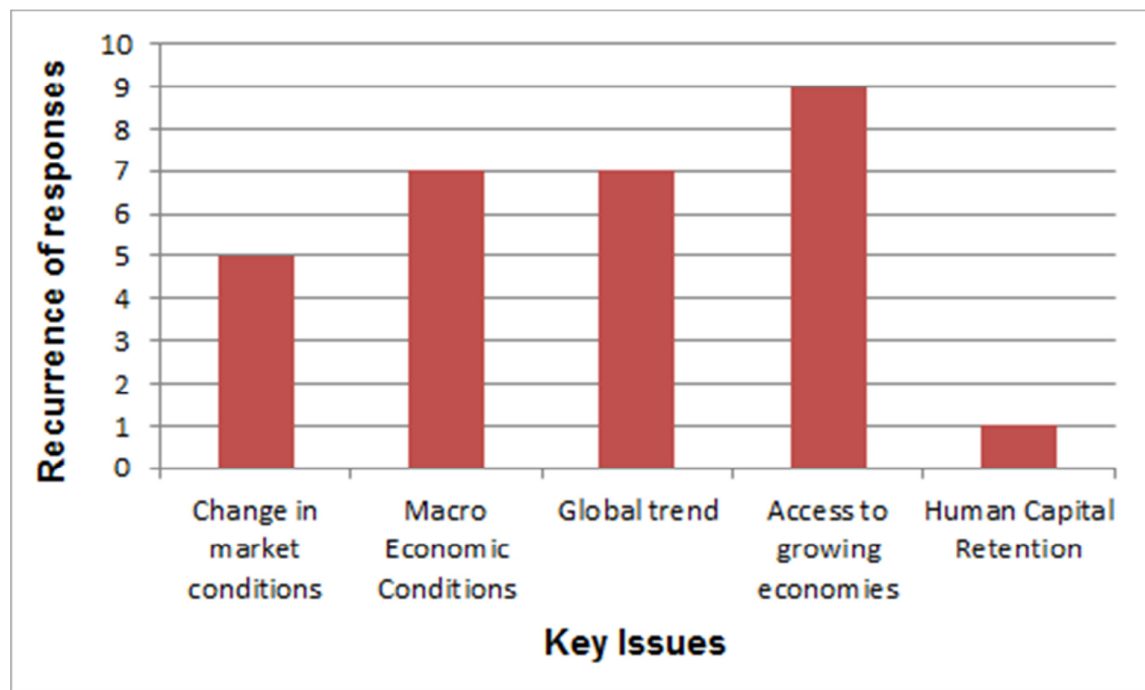


Figure 17: Frequency score – recurring responses on key issues companies have been facing.

From the findings, access to growing economies was the most frequent response during the interviews. Worldwide industry consolidation trends and macro-economic conditions, which include an outlook on the South African economy, were the second most frequent response. Change in market conditions was described less frequent but it is still found to have played a predominant role. Human capital retention was the least frequent response.

4.3 OBJECTIVES AND OUTCOMES

The fifth research question was: What were the objectives and desired outcomes of both the acquirer and seller at the time of decision making during the inception/strategy management phase?

The objectives and outcomes are different push and pull factors than what is described in the previous section however the key issues that companies have been facing directly inform the strategic objectives. It is important to note that the eventual outcome of the decisions made in the context of this study, was not all in favour of company consolidation.

The outcomes are closely linked and related to the objectives, but are rather described as *pull factors* and therefore reported as such.

Both objectives and outcomes as described by the different participants are highlighted under the following overarching themes.

4.3.1 Strategic objectives for *sellers and buyers*

The strategic objectives are a collective list of findings described by all participants supported by a number of direct quotes from the interviews.

The concept of *sellers* and *buyers* as it is used would be specific to an acquisition type of transaction. In the case of a *merger of equals* transaction the concept of *sellers* and *buyers* might vary slightly in that the transaction are a true merger and the strategic objectives are expected to be more aligned and symbiotic.

The level of recognition to each underlying factor varies from participant to participant and the frequency in which it was mentioned during the various interviews is captured in Figures 18 and 19 below.

The following *seller* objectives were listed and briefly described by the participants:

- Objectives aligned towards achieving a vision of being a truly global company.

- Increase the client base of a company as well as the number of revenue streams through diversification and depth in service offering.
- Gain greater access to the fast growing economies in Africa and be a part of African focussed organisational platforms.
- Reduce competition by moving into the African market.
- Operate independently from the South African economy and be sustainable in both fiscal and contracting economic cycles.
- Create opportunities for young people to gain international experience working on large integrated projects.
- Maintain the assets locally and secure future earning potential for current shareholders.
- Share risk with a larger multi-national company.
- Grow with an unconstrained view.
- Separate ownership and management.

Quotes from the interviews in support of the theme are highlighted below:

- *“South African companies could not compete globally because the know-how for multi-national projects and service delivery was limited.”*
- *“First movers in the industry illustrated a bigger and more diversified service offering and improved on their competitiveness.”*
- *“It was unavoidable to stay competitive globally. There was a need for more volume, access to capital and a risk sharing partner.”*
- *“Good financial offers, the risk of dependency on the South African market, fatigue of the tender system and discounts.”*
- *“Grow out of no-man’s land. In this industry you have to be a small niche company or a multi-service diverse one-stop shop.”*

The recurrence of responses out of a potential twelve participants is summarised at the hand of a frequency chart in Figure 18 below.



Figure 18: Frequency score – strategic objectives for *sellers*.

The following *acquirer* objectives are described by the participants:

- Increase the client base of a company as well as the number of revenue streams through diversification and depth in service offering.
- Gain greater access to the fast growing economies in Africa and be a part of African focussed organisational platforms.
- Reduce competition.
- Secure future position and future projects.
- Buy existing infrastructure in Africa by acquiring South African companies with an established footprint in Africa.
- South Africa is considered a stable gateway to enter “risky” Africa.

A few quotes from the interviews in support of the theme are highlighted below:

- *“Global financial reports were commenting on theoretical growth figures for the Africa continent which immediately attracted attention to the continent. Multi-national companies had to position themselves to enter this market.”*

- *“By purchasing South Africa companies, multi-national companies would buy existing infrastructure as many large South African companies already had a footprint in Africa.”*
- *“The fact that multi-national companies came looking for suitable partners to enter the African continent in South Africa, indicates an expression of confidence in the South African platform.”*
- *“‘Many were already there’, was thus not the selling motive or rather a buyer’s motive.”*

The recurrence of responses out of a potential twelve participants is summarised at the hand of a frequency chart in Figure 19 below.



Figure 19: Frequency count – strategic objectives for *buyers*.

4.3.2 Outcomes

The importance of defining the desired outcomes for a decision making process, is described by one of the participants in the context of this study:

“It is important to know what you want to look like after integration already before one initiates a potential consolidation transaction.”

The following strategic outcomes are described:

- Global ownership and global operations.
- Global network with global resources servicing clients across the globe.
- Remain in charge of one’s own destiny.
- Retain staff on all levels throughout the integration process and in the integrated company.
- Avoid disillusionment about loss of ownership, management or operational structure.

Quotes from the interviews in support of the theme are highlighted below:

- *Retain the function of local ownership and local management and give the opportunity for current shareholders and young people to take sinful positions in the integrated company.”*
- *“In a consulting firm your assets are your people and it is important to maintain human capital and keep them motivated.”*

The recurrence of responses out of a potential twelve participants is summarised at the hand of a frequency chart in Figure 20 below.

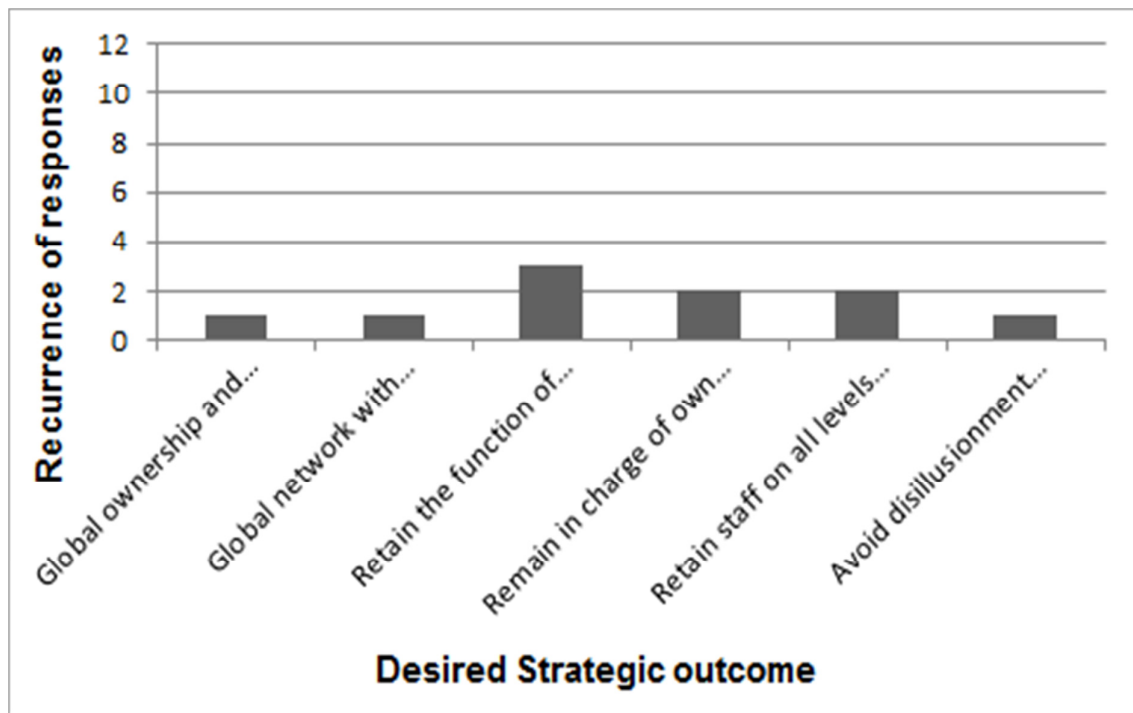


Figure 20: Frequency count – strategic outcomes.

The following financial outcomes are described:

- Secure a future earning potential for current shareholders.
- Reap the benefit to operate in countries of high growth.
- Improved employee assets.

A quote from the interviews in support of the theme is highlighted below:

- *“It was an important outcome to secure a future earnings potential for current shareholders and this influences the type of transaction.”*

The recurrence of responses out of a potential twelve participants is summarised at the hand of a frequency chart in Figure 21 below.

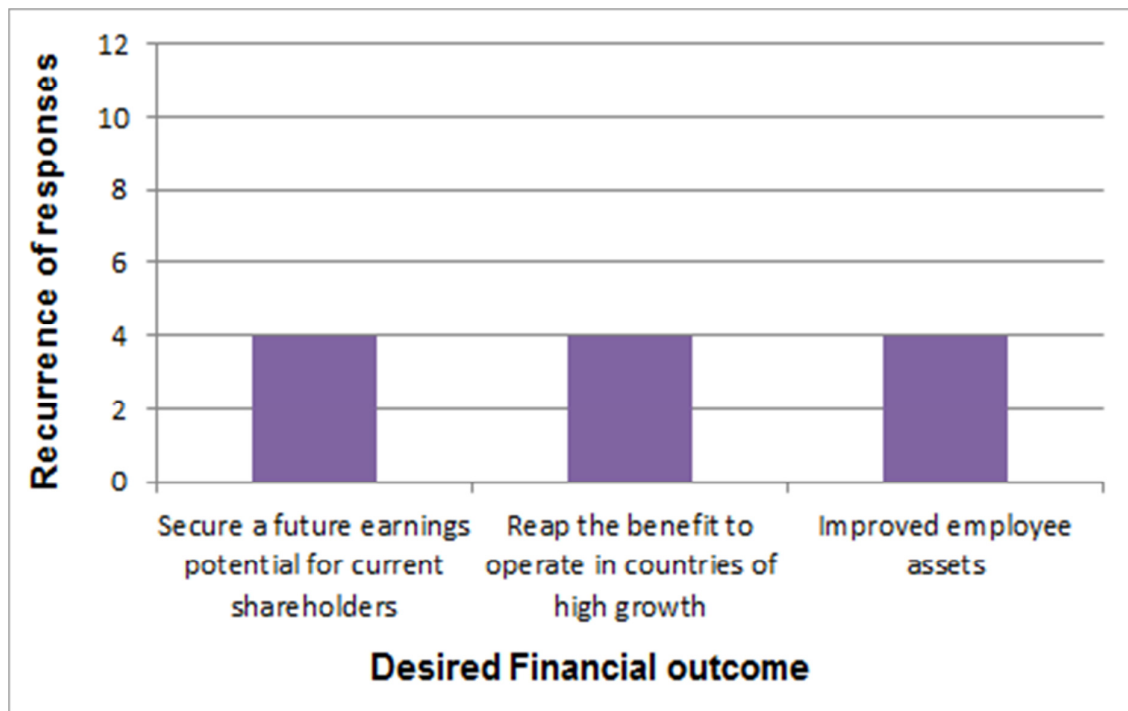


Figure 21: Frequency count – financial outcomes.

The following personal outcomes are described:

- Realisation of the share asset value at a premium.
- Financial security for many shareholders approaching retirement.
- Career advancement.
- New venture will bring new challenges and opportunities for the individual.
- Cash pay-out of shares in cases where lock-in retained capital wanted to be liquidated.
- Peer pressure, group thinking and not going against the majority.

Quotes from the interviews in support of the theme are highlighted below:

- *“From a seller’s perspective the sale of shares could have been considered as an early retirement option.”*
- *“Due to a professional brain drain in South Africa, a lack of middle management exists to buy-out older shareholders. Therefore the realisation of the share asset value at a premium was a push factor for many shareholders.”*

- *“International projects will present exciting opportunities for young people and present unique challenges for the individual.”*

The recurrence of responses out of a potential twelve participants is summarised at the hand of a frequency chart in Figure 22 below.

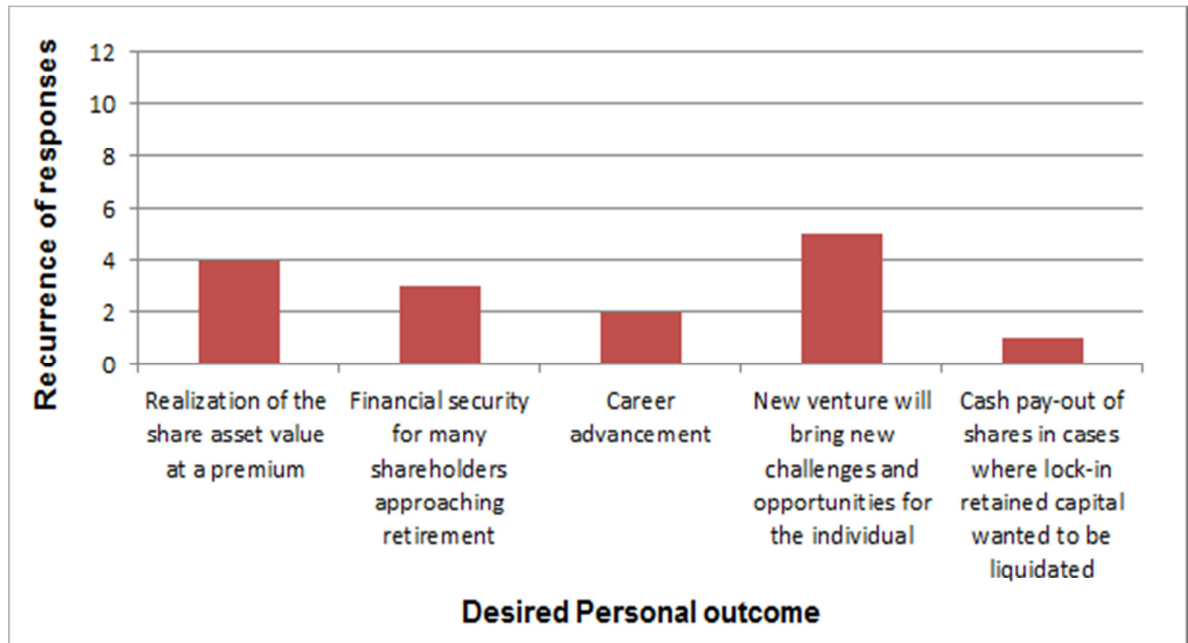


Figure 22: Frequency count – personal outcomes.

4.4 DECISION CRITERIA

The findings with regard to decision criteria are presented in the form of quantitative and qualitative criteria.

4.4.1 Quantitative criteria

Quantitative criteria have to do with specific and easily quantifiable data that are derived in conjunction with the objectives and/or outcomes.

One participant described the primary decision criteria as the assessment of risk versus reward in monetary value and the downside of each decision alternative.

- *“The consideration that is given towards positive and negative outcomes is a crucial influencing factor in decision-making.”*

- *“It is important to analyse and understand the risk versus the reward before making the needed decision.”*
- *“As uncertainty becomes more defined, the information that you base a decision on will change. With more time, the complications to turn around an initial decision increases.”*
- *“The level of uncertainty at a time when critical decisions are required is often high.”*

4.4.2 Qualitative criteria

Qualitative criteria draw on information that is not easily quantifiable and rely on qualitative assessments. What is important is that qualitative and quantitative approaches can be utilised together to check whether the predictions of the one to the other approach are reasonable.

The primary qualitative decision criteria described by the participants are relevant to choosing a suitable partner. This is in the cases where a consolidation process was followed.

From a *seller* and *buyer* perspective, the consideration for a suitable partner is closely related to what wants to be achieved or alternatively the objectives and outcomes.

The following direct quotes support the findings in terms of choosing a suitable partner to consolidate with:

- *“Culture will affect the success of a decision.”*
- *“A cultural fit was a critical consideration. The initiation period spent to determine whether the companies will be a good match was more than two years.”*
- *“Absolute honesty and good financial and administrative records are very important. The offered value is very important.”*
- *“Both heritage companies had a vision of being a truly global business – one that both operates and is owned globally.”*
- *“Consideration was given to the size of the partner company.”*
- *“Our chosen partner had larger resources in the same field and strategies were aligned.”*

- *“It was important to find a partner with different strengths and skill sets to diversify in a wider range of offering to clients. Our view was to form a joint venture like partnership.”*
- *“We wanted a company that could compliment out footprint, skills and expertise base.”*
- *“Geographies and countries of operation were important.”*
- *“The target company’s shareholders wanted ownership in the integrated company as well as a sinful role in the management of the integrated company.”*
- *“We wanted to stay in charge of our own destiny.”*
- *“Culture will affect the success of a decision.”*

From the findings that were described by the participants, similarities and differences were noted.

Not all of the direct quotes highlighted above inform the next two tables. The information that informs the next two tables is also from direct quotes highlighted elsewhere in the findings. For example, it is included under the key issues, strategic objectives and outcomes sections.

The first table below compares the similarities that were found amongst all the participants when they described it from a seller’s and buyer’s perspective.

The second table highlights the major differences that were found between the participants.

Similarities from seller’s perspective	Similarities from buyer’s perspective
Companies were conscious of a cultural fit	Quality of skills
Buyer’s access to capital	Geographies and countries of operation
Ability to agree on the valuation of the buyer and the offer	Type of resources and skill – which discipline could the seller offer
Share risk with a suitable partner	Reputation and order book
Geographies and countries of operation	Size of the company
Size of the company	

Differences
Transaction type that was negotiated and concluded
Business model of the buyer
Decision to stay a private company or become a public company
Level and extent of screening of the buyer and the seller that were described
Extent of ownership that was retained
Extent of the management function that was retained by the seller
Type of diversification that was sought after: Geography based, different skill set based, more of the same skill set based or a combination
Extent to which the footprint, skills and expertise of the legacy companies complimented each other

The table on differences are briefly described below to give the ready further information on this table and for further clarity.

The level and extent of screening as described by the participants vary.

A number of participants commented that the screening process followed for potential partners took up to two years where a number of participants mentioned limited screening of the buyer.

The type of transaction that was negotiated and concluded was different between the various transactions: share-swap transactions, share sell transactions and merger of equals were all noted.

It is found that the transaction type that was negotiated and concluded has a direct correlation with the extent of ownership that was retained, the extent of the management function that was retained by the seller and the desired outcome to stay in charge of one's future destiny.

The business model of the buyer, in some cases, an acquisitive company by strategy, gave little option for the seller to negotiate a different transaction type.

In most cases the desire to remain a private company was crucial in the selection of a partner.

Sell-share transactions required the access to capital that a public company could offer and where companies were already public companies this was maintained.

It is clear that companies defined diversified needs differently. Diversification was described in three ways: Expanding existing operations into other geographies, expanding the skill set and disciplines that could be offered, expanding the same skill with more and quality resources, or a combination of the three. The extent to which companies wanted to compliment the footprint, skills and expertise would inform the diversification strategy.

4.5 LOOKING FORWARD

The sixth research question was: How have these desired outcomes been achieved to date now that integration on most of the local transactions are concluded?

Operating in emerging markets is described as a risky business with global economic reports commenting on theoretical growth figures that require a substantial amount of capital risk to unlock.

The competition in Africa is high with companies across the globe all chasing opportunities on the continent. This is mainly due to limited growth in the local markets in recent years.

Companies will continuously strive to reduce their business risk, reduce costs and increase profit margins. The extent of further consolidation cannot be prescribed although it is noted that the environment in which companies operate is very dynamic. A decision, good for this time and context might not be good for a time and changed context in the future when different situational factors exist.

A number of companies described the integration process that was followed as cohesive. The employees from legacy companies spread between integrated business lines making a clean split nearly impossible without starting over.

None of the participants described or highlighted any indication towards an unsuccessful venture that will fail and disintegrate in the near future.

A direct translation from the expected outcomes to how these have been achieved could not be drawn in the findings. However, a number of different views were recorded when the participants were asked about their experience in the integrated company up to date.

The following direct quotes are highlighted in no specific order:

- *“Some work and some don’t – there have been evidence of some spectacular failures in the past.”*

- *“The benefit of partnering with a company with more efficient systems is coming through now with larger profits on projects and less waste.”*
- *“The more you get for your company value in the deal, the more you will pay back when the ownership has transferred.”*
- *“The question about successful integration will be influenced depending on who you talk to.”*
- *“Measuring success is how many people stick around and the out flux level of legacy employees. The people that have left were expected to leave.”*
- *“Attrition rate have not been marginally higher than before – indicating that more people have embraced it.”*
- *“Future success will be influenced by how the legacy people will progress in the new company and how successful their careers will be.”*
- *“The larger entity will automatically impose their culture in the integrated company.”*
- *“Change resistance are evident although it appears as though younger staff are more excited about the new opportunities.”*
- *“Younger people are more pro than the older people and people that have been with a company for a long time.”*
- *“Culture changes have affected many people and are possibly why many senior people have left.”*
- *“None of the senior people have left and this suggests it has gone very well.”*
- *“Power grab by political groupings became more evident during integration phases than in the earlier phases of the transaction.”*
- *“Authority has shifted from full control until all control has been handed over to the new management and owners.”*
- *“Considering the fleeing of main negotiators I would say fatigue was a cause and motivation of a corporate executive global role versus having to report to ‘partners.’*
- *“There have with no doubt been challenges – new reporting structures, big company systems and business templates.”*
- *“Change resistance to adopt the new systems have been experienced.”*
- *“After eighteen months we have integrated and are settling down.”*

- *“There must be a new way of thinking in the new company.”*
- *“Communication is crucial and appears to be good.”*
- *“The individual will have to plot his career path in the integrated company now.”*
- *“Integration was deliberately so that people are spread through different business lines and mixed across the legacy companies.”*
- *It is simpler when there is no expats of the company in South Africa – because your SA culture is then more predominant of the target company in the South African country.”*

In the next chapter the findings is discussed and the conclusions is structured in a similar sequence to the findings and follows the research questions from one to six. Subsequent to the conclusions are recommendations to the industry and well as recommendations for further research.

5. CHAPTER 5 – DISCUSSION OF FINDINGS AND CONCLUSION

5.1 DISCUSSION OF THE FINDINGS

What motivates and influences a decision

Context and complexity inform and influence any decision and contribute to the dynamics of decision-making (Rausch, 2007:12). Therefore, a decision is made in context which informs the associated push and pull factors. Also that decision making is vastly influenced and that two different individuals will not necessarily make the same decision from the same set of facts or information.

The influence of a person's perception (memory of events) and perfect hindsight on the findings of this study is evident. This is because of the fact that this research is conducted post integration of the majority of the transactions and that the decisions made in this context are already complete. A participant's description of events can therefore be influenced.

The participants to the study described the key issues companies have been facing, such as macro-economic risk, fatigue of the South African tendering system, global trends and human capital retention. A number of participants highlighted that consolidation of the consulting engineering industry in South Africa was inevitable and unavoidable if you wanted to stay globally competitive. In these cases the decision making process that was described was more focussed around how to consolidate. In other cases, participants described that a change in strategy to stay locally competitive will be sustainable. In these cases the decision making process that was described focussed on whether to consolidate or not.

With this in view, it is clear from the findings that companies considered the key issues they were facing differently. Therefore, the definition of the opportunity identified also varies and this directly informs the focus or objectives of the decision making process.

The different outcomes that are described are closely related to the objectives. However, it is clear that companies, or the individuals, desired different outcomes.

It is found that decision-making is unavoidable. Therefore, every individual has to make decisions on a daily basis, however the context in which a decision needs to be made and the complexity of the decision that is required will vary.

It is important to understand why a decision is required in the first place and what the decision is that should be taken.

This discussion is structured and presented in the same order as the research questions posed in Chapter 1 and aims to provide the findings and surrounding discussion to each question sequentially.

The first research question is: What motivates and influences any decision?

Decisions are motivated by changing environments and a desire to constantly evolve, improve and progress. However, decisions are also vastly influenced and the factors talked about during the empirical findings are personal disposition, knowledge skills and experience, emotion, desired outcome driven, external environmental elements and an individual's perception.

All of these talked about influencing factors place a focus on the individual who is tasked with the effort to define the decision and make the decision. The only exception is the external environmental factors which are more described as tools and processes for decision-making. Therefore it is noted here that an individual's influence on a decision was described to be paramount.

Knowledge skills and experience has to do with an individual's intelligence, ability and judgement. This is described as a line of decision-making and becomes more important in contexts where the complexity of the decision that is required is high. The findings indicate that a vast amount of complex decisions are often required at a time of high risk and uncertainty when relevant information to inform a decision is limited. According to Gladwell (2007:i) being able to act intelligently and instinctively in the moment is possible only after a long and rigorous of education and experience. Gladwell also states that we require that decision be sourced and footnoted and respect the fact that it is possible to know without knowing why we know and accept that. Therefore, we need to improve the quality of the decisions we make and the ability to act instantaneously.

It was described by a participant that a primary criteria for any decision is an analysis of the risk versus reward. Secondary considerations should take cognisance of the objective. The theoretical decision making model indicates that a clear identification of the objectives is important in the early stages of a decision making process.

The success of any decision depends on its definition and it is noted here that success is viewed in light of achieving the goal that was set out (DePamphillis, 2011:39).

The subject of objectives will closely link with the desired outcome or the expected outcome. Choosing by projecting an expected outcome is an effective method to generate and evaluate between various courses of action (Zeelenberg, 1999:95).

From the empirical data analysis, participants did not explicitly describe the method by which alternatives were generated and evaluated. However, the expected outcomes were described more as *pull factors* and range from strategic to personal.

The findings confirm that shareholders play little to no role in the decision making process of an organisation and that the decision making process is a function of the management team.

Environmental elements as described in the empirical findings mostly refer to tools and processes in the form of policies and procedures, rules of engagement and level of decision making authority in an organisation and are in place to limit the influence of the individual.

Management culture was described as the underlying behaviour of the management team in their role as an individual as well as in the team. This is informed by, but not limited to, the legacy behaviour of the company. Therefore, management culture was described as a strong influencing factor in group decision making. The dynamics of a group decision and the group facilitator influence group decision making. Although none of the participants in the empirical study rendered specific information on co-ordination processes that is followed during group decision making, a previous qualitative study on group decision making dynamics indicated two co-ordination approaches: “Leading the group” and “steering the group”. Where, leadership involves goal-directed influencing of others where facilitation of a group discussion supports the interaction and communication within the group to accomplish the shared objectives (Yukl, 2002).

The empirical study did test the concept of top-down or bottom-up management styles on only a few participants. In the context of this study the findings indicate that a top-down or consensus approach based on explicit facts is the most desired decision making style. That confirms that strategic decisions resides with top management of a company and is better taken by a number of role players instead of a large volume of stakeholders.

Ownership implies the shareholder and management structure of the organisation. The structure determines the extent of the influence it will have on organisational decision making. The average age of majority shareholders in the South African engineering consulting companies is nearing retirement. Historically, companies in South Africa are employee-owned with a low attrition rate in ownership or management. Locked-in capital is described by a participant as an impeding factor for company growth. The dynamics between historic shareholder managers wanting to protect and preserve and younger managers wanting to grow and diversify are described as conflicting factors in organisational decision-making in larger

organisations. However, another view is that employee-owned companies were described as more suitable in the professional services environment as it acts as an incentive to retain people. Various views on ownership influences were received during the empirical study, but what is important for this study is to note that it is an influencing factor.

The reasons for consolidation activity in the engineering consulting industry as well as the reason why a number of the large South African engineering consulting companies have been merged or acquired:

The second and third research questions focussed on how the motivations and considerations that have already been described, feature in the context of the engineering consulting industry consolidation in South Africa in the last five years – in context and the reasons why a majority of the large companies concluded on consolidation transactions.

Companies have been facing a number of key issues created by the continuous changing environment in which organisations operate today. The key issues as described and understood have informed the context of this study which is the consolidation of the consulting engineering industry in South Africa.

Macro-economic conditions and a global recession as well as a projected growth in South Africa that has not yet realised are found as common factors for both parties to pursue diversification beyond borders and into different market segments. It became clear for South African companies to diversify and growth was a necessity to stay globally competitive. In the cases where companies decided not to consolidate, it was a necessity to adapt the strategy to stay competitive and sustainable in the local market.

Africa as the last frontier and global economic reports project several countries in Africa as the fastest growing economies in the world. Therefore the literature review and empirical research support decision-making with regards to strategy and vision to create truly global entities and African focussed organisational platforms. From the consolidation activity it is clear that the strategy was to rapidly enter other markets and this was pursued through acquisitions and mergers.

From these findings it is clear that companies faced similar key issues. Access to growing economies was highlighted most often by participants and this was closely followed by global trends and macro-economic conditions.

A change in market conditions recurred less. It is expected that the minority of opinions, that a change in market conditions could have been served by the

traditional joint venture partnership, influenced the finding. Human capital retention was less prominent in the findings. The need to liquidate capital was not considered a key issue by most of the companies, because a strategic objective was to retain ownership throughout and beyond the integration. Small variations in the answers can be ascribed to the current state of companies and that the status quo is different in terms of things like their financial position, operational state and strategy and vision.

With this view in mind, the findings are clear that companies defined the opportunity or starting point differently and this is further influenced by the individual.

In the majority of cases investigated in this research the decision to follow the path of consolidation was already the starting point and the decision making process then described as “how” to consolidate.

The minority of cases in this research was the decision to not follow the path of consolidation and in these cases the decision making process was rather described as “whether” to consolidate.

It is found that strategic objectives are different, but well comparable between the *seller* and *buyer*.

Similarities are that both parties were looking to increase their current client base and gain greater access to emerging markets such as Africa. It was also found that a motivation to consolidate was to reduce competition in the market.

Both parties wanted to secure a position in future projects. Sellers wanted to grow without constraint and share the risk of integrated projects. Buyers wanted to buy existing infrastructure in emerging markets such as Africa and South Africa was considered a stable gateway.

These findings are supported in theory by the fact that the majority of large consulting engineering companies in South Africa had a footprint in Africa before the consolidation activity. Consulting Engineers South Africa (CESA), in their biannual economic and capacity report indicates that fee earnings from Africa were historically approximately 10% to 11% with drastic increase in the last five years (CESA, 2014). Therefore, the *buyer* considered the South African market as a stable gateway to enter risky Africa. Although the South African companies already had a footprint in Africa, the empirical findings note that, to expand and unlock opportunities in Africa as well as globally, access to capital and appetite for risk are required which was not necessarily available.

With clear objectives and considerations it is more evident that explicit facts informed decision-making during the process. According to Pablo *et al.* (1996:727) decisions

are frequently made in the face of uncertainty and that this makes choosing between alternatives more difficult. Therefore, confronting uncertainty explicitly is often seen as a better decision making process than following an implicit alternative.

What were the objectives and desired outcomes of both the acquirer and seller at the time of decision-making during the inception/strategy management phase?

The desired outcomes of the *seller* are discussed at the hand of the objectives that were outlined during the inception stage of the transaction.

Considering the frequency counts shown in Figure 20, 21 and 22, it is interesting to note that the frequency of participants mentioning factors that are ascribed as desired outcomes are low. This means that not a lot of participants mentioned it during the interview. However, desired outcomes, as described as an influencing factor in section 4.1, highlighted that a number of participants recognised it as an influencing factor when asked although limited direct quotes were recorded in that instance.

Participants described their desired outcomes and this is found to be *pull factors* in the decision making process. *Pull factors* are factors that influence the selection of a decision over a set of alternative choices. The outcomes were grouped into three overarching themes that extends from strategic to personal. It is found that the outcomes as described are closely related to the objectives.

The strategic outcome to retain the function of local ownership and local management is closely linked to the objective to remain a privately owned firm.

Also, that a privately owned firm or employee-owned firm incentivises owner and employee owners by sharing in a common profit pool.

The financial outcome to secure a long term earning potential for current shareholders is closely linked to the objective to maintain a financial asset in the integrated company and also the objective to retain maximum personnel through the integration phase and beyond.

The desired outcome to be a truly global company with global ownership and operations is closely linked to the objective to realise synergy, strengthen business management and competitiveness in a global market. A financial objective is to realise synergy by combining clients and increasing revenue by serving them from a lower cost basis, driven by an expected outcome to have future long term earning potential in the new company. Economies of scale is realising cost reduction that can

be realised through spreading fixed cost over increasing production levels, co-location of offices and sharing overheads (DePamphillis, 2011:4).

A desired outcome to retain staff – from senior executive to general staff – requires a clear strategic objective to accomplish such: to ensure sinful positions for staff in the new organisational structure and to avoid disillusionment with regards to loss of ownership, change in management authority and organisational structure.

South African engineering consulting firms historically experienced tough times and bankruptcy. The perception and memory thereof was found a motivation for a financial objective to diversify market risk and reducing exposure to economic downturns in South Africa. This is driven by a desired outcome to decrease diversifiable employment risk and secure financial income. Primarily seen in conglomerate forming where managers are more likely to expand via an M&A process than by growing the internal business to diversify risk and minimise costs of financial distress and bankruptcy. This is also considered a form of risk reduction and job security that is sought after by risk adverse executives and managers (Amihud & Baruch, 1981).

Personal objectives recognised from the empirical research are that the opportunity presented a “challenge” for many key decision makers and was driven by an expected outcome to have a sinful position and similar responsibility in the integrated company which did not realise in all cases.

A further personal objective found is that of an opportunity of career advancement during the corporate restructuring process and a desired outcome to boost personal reputation giving friends and colleagues greater responsibilities or greater jobs. A merger and/or acquisition transaction cannot take place without the expectation of corporate change. Corporate restructuring is a term used to describe the actions taken to expand or contract the basic operations of a company or fundamentally change the management, asset and/or financial structure. A merger and or acquisition would be a single form of corporate restructuring which often leads to rationalisation of operations of the firms involved as well as renegotiation of the terms of employment (DePhamphillis, 2011).

The influence of the bandwagon effect is recognised from the empirical findings. In legacy terms, separate entities formed partnerships or joint ventures to respond to large and diversified project opportunities. The consolidation of companies reduces the options to form project specific partnerships when required and “forces” the fast following of first mover initiatives. M&A activity in history has followed a trend to occur in clusters across a number of years.

Benefits and opportunities are recognised as other push factors. Good and at a premium value for shares is found in the empirical research. From a *seller's* perspective the realisation of asset value is a critical push factor. The South African engineering industry is known for a lack of middle management due to the “brain drain” phenomenon in the early 2000’s. Therefore a lack of middle management to “buy-out” an older shareholder exists. A further critical push factor recognised in the empirical research was for long term future earnings potential in an integrated company. From a client’s perspective the benefit of service delivery was noted and the ability to offer clients a full spectrum of services. The benefit is recognised in the fact that the capability and in-house technical expertise of clients have reduced over time and are now more reliant on consultants. Most participants noted the opportunity for younger employees to work abroad and gain international experience.

It is found that clear strategic and financial objectives, when it is set in the early stages of the decision making process, will inform the quantitative decision criteria.

Qualitative decision criteria, in this context, are recognised as the criteria set out for a suitable partner.

The relationship between quantitative and qualitative decision criteria is closely linked. Quantitative criteria will draw on rational information which is measured and calculated. Qualitative criteria will draw on information that is not easily quantifiable but rather reliant on an individual’s experience and qualitative assessment. It is important to utilise both approaches together because the one approach will check whether the prediction of the other approach is reasonable or not.

How have these desired outcomes been achieved to date now that integration on most of the local transactions is concluded?

Looking forward, most of the participants who described their objectives and desired outcomes also commented that every element that was set out at the start of the decision making process has been achieved. Therefore, by definition of success measured against the definition thereof, all concepts of the decision making process which are described, have a positive result.

However, much research to date investigated and found that more than half of M&A transactions does not end up economically effective and that anticipated acquisition synergies are not realised (King *et al.*, 2004:192).

The fact that in a majority of cases, a strategic objective that has motivated for consolidation was to have access to fast growing markets and a financial objective, is to leverage the benefit of operating in high growth economies. Operating in

emerging markets is described as a risky business as well as a highly aggressive competitive environment.

Participants did however describe their integration processes to have been excessive and no participant described a situation where a clean break-up or sell-off is foreseen. However, it can be expected that companies will continue to strive to reduce their business risk, reduce cost and improve profit margins. It is not to say that a decision that was right for this time will be right for another time and context in the future.

In the South African context where the local government augment preferential procurement initiatives, broad-based black economic empowerment companies and the continuous effort to reduce the unemployment rate, multi-national consulting companies cannot expect to remain very popular with government who is the ultimate funder of large infrastructure projects in South Africa.

It is not to say that the consolidation of the industry will never disintegrate and decentralise in the future and this may be a topic for further research in the future.

5.2 CONCLUSION

All the decisions made in this context are considered complex decisions that are related to strategic decision-making.

It is clear that the decisions that have been made in this context and time is irreversible and that it is critical to embrace the continuously changing environment that will create future opportunities for change once again.

People wanted different things for themselves and for their companies. The key issues that companies were facing could no longer be ignored and called for strategic intervention.

Companies faced key issues that required strategic vision and in turn strategic decision-making. In most cases, the key issues, stimulated by global consolidation trends and high growth projection in emerging economies were obvious push factors for companies to consolidate.

Where consolidation was not the chosen strategic response to the key issues that companies were facing, it is clear that an alternative strategic response have been followed.

The influence that a first mover had on other companies responding sequentially should be recognised as an influencing factor on the decision making process to

consolidate or not to consolidate. This was not necessarily described as such by the participants.

Escalation of commitment to a chosen course of action means that the extent of continuous commitment will increase even if it is to a failing course. From the interview process, findings and the discussion, it is perceived by the researcher that the decision making process as described by the participants followed a clear identification of the decision that has to be made, strategically planned and successfully executed. It is also perceived that everybody knew exactly what they were doing, what they wanted and how to achieve it. This research is limited in a sense that key performance targets are not measured and included in the findings.

The findings actually makes little to no reference of the poor decisions that was made throughout the decision making process in this context. In reality, this could be the impact that perfect hindsight and escalation of commitment has on this research.

The connotations that are presented in section 4.5 of the findings are positively interpreted and not considered as a result of poor decision making.

The South African economy is not a strong push factor but rather a situational factor in the local market which has been making it an unattractive sole option for companies to ensure long term sustainability. Therefore it had companies strategically looking beyond borders. The change in market conditions and client demands would be considered a stronger push factor than the local economy.

With 83% of the participants in this study involved in a company that has consolidated, it can be viewed that the findings are a skewed representation of the population. In reality there could be many more companies, whose representatives did not participate in this research which decided not to consolidate.

The personal growth from completing this research study might far exceed the level of contribution it makes to the engineering consulting industry or the body of decision making knowledge.

The study might be considered holistic and in some cases very general, but it was more important to capture and document this turning-point in the engineering consulting industry in South Africa rather than to draw on specific conclusions.

The various experiences that were shared during the interview could not easily be compared and therefore the findings lack a crucial element which is to indicate what was important to whom and to what level it was achieved.

5.3 RECOMMENDATION TO THE INDUSTRY

The lessons learnt for engineering consulting companies in South Africa should not be discarded and participants and their companies should develop a decision record to preserve this information.

Company executives of the selling company should be retained as far as possible in the integrated business.

In M&A organizational restructuring is evident. It is expected that change in company culture will affect employees of legacy companies extensively, most probably, employees of the selling entity mostly. Therefore, this should be considered a caution for management to pay the much needed attention to valued employees to maintain success in an industry that sells human capital.

The fact that business mergers and acquisitions are growth strategies implies that the more you get for your company value in the deal as a seller, the more you will pay back when the ownership has transferred and the companies are integrated.

The loss of key employees during an M&A transaction is unavoidable. However the attrition rate should be carefully managed and kept under control. It is recommended that effective change management towards current employees is a better alternative than excessive staff turn over.

In search of growing economies and expanding client bases, it is important to maintain legacy clients. This will ensure the continuation of a revenue stream throughout the mostly difficult transaction and integration phases of M&A.

Therefore a growing concern should be raised where an integrated company now means higher and constant fees without taking cognisance of the discount and tendering environment we work in at all.

Preferential procurement and broad-based black economic empowerment are the mandate of the South African government and it is the government that holds the key to finance the large scale infrastructure expenditure in the country.

A solution for this is not present beyond South African borders where other local governments enforce local content and skills transfer on projects in their respective emerging countries.

The consolidated industry must not forget the importance of executing an effective marketing strategy that includes servicing our historic South African clients.

5.4 RECOMMENDATION FOR FURTHER RESEARCH

This qualitative research leaves room for major advancement on both the subject of decision-making as well as consolidation of the engineering consulting industry in South Africa.

The aim was to present this research as such that readers would be able to identify and decide for themselves on further opportunity for further research.

Nevertheless, the following list of further research topics is recommended:

- Dynamics of strategic decision-making when uncertainty and risk is high.
- Dynamics of decision-making in an emotionally high pressure context.
- A comparative study between the engineering consulting consolidation transactions in South Africa in the last five years.

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ANNEXURE A – BLANK COPY OF THE INTERVIEW SHEET

