

**The importance of integrating quality practices into strategic management**

by

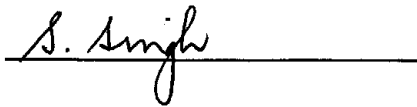
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**Approved for final submission.**

  
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## DECLARATION OF CANDIDATE

I, Nita Sukdeo, declare that unless otherwise indicated, this dissertation is my own work and that it has not been submitted for any degree at another Tertiary Institution.



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N. Sukdeo

March 2009

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## **Abstract**

Over the past ten years, intense global competition, changing customer needs and the changing business environment have forced many organisations to examine their organisational goals and to re-evaluate how to meet their challenges. Extreme global competition has forced many organisations to develop action plans to respond to an increasingly competitive market. One such action plan identified was the integration of quality practices and principles with strategic planning of the organisation. This research investigated the importance and usefulness of integrating quality practices in the strategic management process of organisations in the Printing and Packaging industry in the Ethekeweni Municipality.

This study included a combination of qualitative and quantitative research methods. The review of literature represented the qualitative research method, acknowledged the importance of, and advantages and disadvantages of integrating quality practices with the strategic management process. It also identified selected quality practices that can improve the strategic planning process. The quantitative method included a preliminary study and a main study. The preliminary study was conducted using questionnaires and interviews consisting of 10 and 5 organisations respectively. The main study consisted of questionnaires administered to 30 organisations.

The results of the pilot study showed that although many organisations were aware of the integration, they did not have the support from employees, nor the time to implement it. The main study indicated that the majority of the organisations integrated the two practices. 97% of the organisations found that this integration was difficult initially, but with some perseverance achieved success, while 3% of the organisations did not implement the integration. The latter are now considering the integration process.

Hence, it can be accepted that the integration of quality practices within the strategic management process has directed the organisation toward continuous improvement, a competitive advantage, a greater market share and sustainability, greater customer satisfaction and increased profitability and sales.

## LIST OF FIGURES

Figure 1	:	SWOT Analysis.....	14
Figure 2	:	Total Quality Management and Strategy.....	25
Figure 3	:	Hoshin Kanri .....	27
Figure 4	:	Flowchart of study.....	42
Figure 5	:	Flowchart of the design of the questionnaire.....	62
Figure 6	:	The importance of implementing quality practices.....	63
Figure 7	:	Percentage of organisations implementing quality practices.....	64
Figure 8	:	Percentage of organisations that achieved success after the implementation.....	65
Figure 9	:	The organisations that succeeded in continuous improvement .....	66
Figure 10	:	Organisations that are ISO compliant.....	67
Figure 11	:	The implementation of TQM.....	68
Figure 12	:	The implementation of strategic management.....	69
Figure 13	:	Gaining a competitive advantage.....	70
Figure 14	:	The importance of strategic management.....	72
Figure 15	:	The organisations adhere to strategic plans.....	73
Figure 16	:	Organisations conducting a SWOT analysis.....	75
Figure 17	:	Organisations that apply a SWOT analysis.....	76
Figure 18	:	The integration of quality practices in strategic management processes.....	77

Figure 19	:	The improvements and difficulties experienced by the organisations.....	78
Figure 20	:	The types of quality practices that were implemented in organisations.....	80
Figure 21	:	The importance of the integration of quality practices and strategic management .....	81
Figure 22	:	The integration leads to better strategies.....	82
Figure 23	:	The use of a combination of quality practices.....	84

## LIST OF TABLES

Table 1	:	Differences between Six Sigma and TQM.....	36
Table 2	:	Differences between non-probability and probability sampling .....	46
Table 3	:	The calculation of the sample for the pilot study.....	49

## LIST OF ABBREVIATIONS AND ACRONYMS

<b>6<math>\sigma</math></b>	:	Six Sigma
<b>CBD</b>	:	Central Business District
<b>HK</b>	:	Hoshin Kanri
<b>ISO</b>	:	International Organisation for Standardisation
<b>QMP</b>	:	Quality Management Practices
<b>SABS</b>	:	South African Bureau of Standards
<b>SPSS</b>	:	Statistical Package for the Social Sciences
<b>SQM</b>	:	Strategic Quality Management
<b>SWOT</b>	:	Strengths, Weaknesses, Opportunities and Threats
<b>TQM</b>	:	Total Quality Management



## GLOSSARY

**Competitive advantage** : A condition which enables an organisation to operate in a more efficient or otherwise high-quality manner than other organisations it competes with.

**Competencies** : The ability to do something which is especially measured against a standard.

**Continuous improvement** : Philosophy that seeks to make never-ending improvements to the process of converting inputs into outputs.

**Customer satisfaction** : It is the degree to which products and services meet or exceed customer expectations.

**Discipline** : The practice or methods of teaching and enforcing acceptable patterns of behaviour.

**Encompasses** : To include a certain aspect or variable.

**Environment** : All the external physical conditions that may influence the performance of a product or service.

**Evolution** : The gradual progression or development of a phenomenon into a more complex or improved form.

**Feedback** : Comments in the form of opinions and reactions about a phenomenon, intended to provide useful information for future decisions and developments.

**Goals** : The final purpose or aim an individual wants to achieve.

**Initiatives** : The right or power to introduce a new measure or course of action.

**Implementing** : To accomplish or to fulfil.

**Integrating** : The action of incorporating two or more aspects or variables.

**Management** : The act of handling or controlling variables successfully.

**Organisation** : Business activities aimed specifically at growth and profit.

**Paradigm** : The relationship of ideas to one another, forming a conceptual framework within which research is administered.

**Performance** : The act of performing or execution or action.

**Plethora** : A very large or excessive amount of information.

**Principles** : Important underlying laws or assumptions required in a system of thought.

**Processes** : A series of actions directed toward a specific aim.

**Senior management** : Person or group of individuals who direct and control an organisation at the highest level.

**Strategy** : A carefully devised plan of action designed to achieve a goal.

**Sustainability** : Capable of being maintained.

**Synergy** : An effect of the combination of two variables such that the result of the combination is far greater than the action of both variables individually.

<b>TABLE OF CONTENTS</b>	<b>Page no:</b>
Abstract.....	iv
List of Figures.....	v
List of Tables.....	vii
List of Abbreviations and Acronyms.....	viii
Glossary.....	ix
<b>CHAPTER 1 INTRODUCTION.....</b>	<b>1</b>
1.1 Background.....	2
1.2 Problem Statement.....	3
1.3 Research Aims and Objectives	
1.3.1 Aim.....	5
1.3.2 Objectives.....	5
1.4 Rationale for the study.....	5
1.5 Delimitations .....	6
1.6 Design of the study.....	6
1.6.1 Data collection.....	6
1.6.2 Preliminary work.....	6
1.6.3 Main Study.....	7
1.6.4 Population and Sampling.....	7
1.7 Chapter Outline.....	7
1.8 CHAPTER SUMMARY.....	8
<b>CHAPTER 2 LITERATURE REVIEW.....</b>	<b>9</b>
2.1 INTRODUCTION.....	10
2.2 The evolution of Strategic Management.....	10
2.3 ADVANTAGES OF STRATEGIC MANAGEMENT.....	12
2.3.1 Aligning organisational goals and objectives.....	12

2.3.2	Scanning the environment using a SWOT analysis.....	13
2.3.3	Gaining a competitive advantage.....	15
2.4	DISADVANTAGES OF STRATEGIC MANAGEMENT.....	16
2.4.1	The lack of a SWOT analysis in a rapidly changing environment.....	16
2.4.2	The changes that occur in strategic plans.....	18
2.5	The evolution and integration of quality practices into the strategic management process.....	20
2.6	THE ADVANTAGES OF USING QUALITY TOOLS AND PRACTICES IN THE STRATEGIC MANAGEMENT PROCESS.....	23
2.6.1	The advantages of Total Quality Management (TQM) .....	23
2.6.2	The advantages of Hoshin Kanri .....	26
2.6.3	Advantages of ISO 9001: 2000 Certification.....	28
2.6.4	The advantages of Strategic Quality Management (SQM).....	28
2.6.5	The advantages of Six Sigma (6σ).....	30
2.7	DISADVANTAGES OF QUALITY PRACTICES IN THE STRATEGIC MANAGEMENT PROCESS.....	34
2.7.1	The lack of Total Quality Management initiatives.....	34
2.7.2	Criticisms of Six Sigma.....	35
2.7.3	Poor implementation of strategic quality management .....	37
2.8	CHAPTER SUMMARY.....	38
<b>CHAPTER 3</b>	<b>RESEARCH METHODOLOGY AND DESIGN.....</b>	<b>40</b>
3.1	INTRODUCTION.....	41
3.2	QUALITATIVE versus QUANTITATIVE research.....	43
3.3	TRIANGULATION.....	44
3.3.1	Types of triangulation.....	44

3.4	DATA COLLECTION.....	45
3.4.1	Population and Sampling.....	45
3.4.2	Questionnaires.....	49
3.4.2.1	Advantages.....	50
3.4.2.2	Disadvantages.....	50
3.4.3	Questionnaire design.....	51
3.4.3.1	Determine the questions needed for this study .....	52
3.4.3.2	Select the type of each question and specify the wording.....	52
3.4.3.3	Design the sequence and overall layout of the questionnaire.....	53
3.4.4	Interviews.....	54
3.4.4.1	Structured versus Unstructured interviews.....	55
3.4.5	Observation.....	56
3.4.6	Focus groups.....	56
3.5	Pilot study.....	56
3.5.1	Overview of the pilot study.....	56
3.5.2	Conducting pilot interviews.....	56
3.5.3	Results of the pilot questionnaires.....	57
3.5.4	Results of the pilot interviews.....	59
3.6	MAIN STUDY.....	60
3.7	CHAPTER SUMMARY.....	60
	<b>CHAPTER 4 RESULTS AND DISCUSSIONS.....</b>	<b>61</b>
4.1	Section A – The importance of Quality Practices.....	63
4.1.1	Question 1 - Importance of implementing quality practices.....	63

4.1.2	Question 2 -Your organisation implements quality management processes.....	64
4.1.3	Question 3- The success of the organisation after the implementation of quality practices.....	65
4.1.4	Question 4- The organisation has succeeded in continuous improvement after the implementation of quality practices.....	65
4.2	Section B – The use of Quality Practices in organisations.....	67
4.2.1	Question 1- Your organisation is ISO 9001:2000 compliant.....	67
4.2.2	Question 2- Does the organisation apply Total Quality Management?.....	68
4.3	Section C - The importance of Strategic Management.....	69
4.3.1	Question 1- The organisation implements strategic management principles.....	69
4.3.2	Question 2- The organisation gained a competitive advantage through strategic management principles.....	70
4.3.3	Question 3- The importance of strategic management.....	71
4.3.4	Question 4- The organisation adheres to strategic plans.....	72
4.3.5	Question 5- How does the organisation administer corrective action when strategic initiatives fail?.....	73
4.4	Section D – Current practices of Strategic Management.....	74
4.4.1	Question 1- What are the current practices of the organisation in relation to the strategic management process?.....	74
4.4.2	Question 2- Has the organisation conducted a SWOT analysis recently?.....	75
4.4.3	Question 3- Is the application of a SWOT analysis process useful to the effective operation of the organisation.....	76

4.5	Section E – Identify the synergy between Quality Practices and Strategic Management.....	77
4.5.1	Question 1- Does the organisation integrate/incorporate any quality practices in its strategic management process.....	77
4.5.2	Question 2- Does the organisation implement any of the following practices.....	79
4.6	Section F – Integrating tools and techniques.....	80
4.6.1	Question 1- The importance of integrating quality practices and strategic management.....	80
4.6.2	Question 2- The principle of quality practices can help improve an organisation’s strategic planning and therefore lead to better strategies. Do you agree with this statement?.....	81
4.6.3	Question 3- Would it be useful to implement a combination of quality practices in strategic planning?.....	83
4.7	CHAPTER SUMMARY.....	84
	<b>CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>85</b>
5.1	INTRODUCTION.....	86
5.2	CONCLUSIONS OF THE STUDY.....	86
5.3	RECOMMENDATIONS.....	89
5.3.1	The organisation can achieve continuous improvement in the form of improved operational and organisational processes.....	89
5.3.2	Gaining a competitive advantage through increased productivity, a greater market share, higher customer satisfaction and loyalty.....	90
5.3.3	Productivity increased and defects eliminated.....	90

<b>BIBLIOGRAPHY.....</b>	<b>91</b>
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**LIST OF APPENDICES**

Appendix A.....	102
Appendix B.....	104
Appendix C.....	110
Appendix D.....	116
Appendix E.....	122
Appendix F.....	129



# Chapter One

## Introduction

**1.1 BACKGROUND**

Many organisations fail because they do not take cognisance of the long term benefits of quality practices. They do not realise the value of integrating these quality practices into their daily operations. Hence, this study will endeavour to highlight the usefulness of incorporating quality practices in an organisation's strategic management process.

Strategic management has become one of the core functions of organisations. Lumpkin and Taylor (2004:8-12) publicised that in order for organisations to be competitive and sustainable in the long term, they need to have a clear understanding of their goals and strategies. They believe that this can be achieved by using strategic management as a tool and that it provides a means for organisations to coordinate their functions and resources to achieve prescribed strategies according to an environment in which the organisation may find itself. In this way the organisation can not only adapt to the changing environment, but can also gain a competitive advantage.

Van Eeden and Venter (2003:13-19) are of the view that strategic management is concerned with the analysis of strategic goals along with the internal and external environment of an organisation. Grant (2005:1-11) proposed that strategic management is a process of defining the purpose and achievements of an organisation. He also mentions that each organisation should have a strategic focus, if it intends to survive and flourish in the long term. It is evident from the review above that these authors are in agreement that strategic management is essential for the sustainability of an organisation.

According to Cleveland (2006:1-14) successful organisations consistently use quality practices as a tool to formulate, enhance strategies and set goals and objectives. He stated that many organisations may have overlooked the importance of quality practices in developing relevant strategies.

Lakhal, Pasim and Limam, (2006:625-646) express that quality practices follow a structured, systematic process involving all employees of the organisation in its planning

and implementation efforts. To support this, quality experts have introduced a number of quality tools such as Total Quality Management (TQM) and Strategic Quality Management (SQM) to name but a few, to implement and improve processes in order to enhance the quality of a product or service in an organisation. Leonard and McAdam (2002:507-522) contend that SQM is a useful tool to develop a comprehensive framework for developing business objectives and to improve quality efforts. Godfrey (2006:24-38) states that over the past few years there has been an increase in the emphasis on SQM.

In addition, quality tools such as Hoshin Planning, SWOT Analysis, Continuous Improvement and the Six Sigma can be applied to solve problems and to improve quality within organisations. Brown (2005:209-222) states that not only should quality practices be linked with the strategic planning process but it should receive organisation-wide commitment.

It is evident from the review, that it makes good business sense for organisations to recognise that the key to performance excellence is to integrate quality practices into their organisation's strategic and operational plans. Therefore strategic quality planning should define a customer-focused vision, state the objectives, as well as integrate quality practices into the organisation's strategic and annual business plans. It can be inferred that quality practices, especially SQM, are of vital importance to the success of an organisation.

## **1.2 PROBLEM STATEMENT**

Lee (2007:9-24) stated that in 1980, the Chrysler corporation was close to bankruptcy. This was due to the quality problems experienced with their new fleet of cars. In 1990, under the supervision of a newly appointed vice president, Chrysler changed their strategic management style. The organisation focused on their missions, goals and strategies to determine the root cause of their problems. One of the ways in which they overcame their problems was by evaluating their purpose in the motor industry. Chrysler then developed a mission statement which introduced them as one of the

premier automotive organisations based on their quality efforts. Almost half of their employees were involved in quality teams. But they experienced no change in results, in cost structure, customer satisfaction and in market share. It did not take long to discover that the root cause of their problems was that there was no real strategic or quality plan.

In addition, employees throughout the organisation did not know which activities were important and did not prioritise urgent ones. The activities were not aligned with key strategies. Improvements were not linked to provide meaningful results across critical processes. Even at senior levels, they had no clear agreement on important priorities. However, new efforts were introduced later and they improved quality and have subsequently made Chrysler one of the top ten automotive organisations in the motor industry (Lee, 2007:9-24). Gale (2006:1-11) explains that in 2002, Toyota had experienced similar difficulties as Chrysler, with the quality of some of their cars. After redirecting their strategic goals, Toyota became a very successful organisation throughout the world in terms of their quality and excellence.

The review of literature above shows that there has been a lack of implementation of quality practices, poor development of strategic management and ineffective quality plans in some organisations. Consequently, this has led to poor alignment between strategic and organisational goals and eventually to poor performance in business.

The cases above [Lee (2007:9-24), Gale (2006:1-11) and Godfrey (2000:24-38)] underscore the contention that serious quality problems existed because of inadequate strategic management. Perhaps organisations need to accept the usefulness of existing and emerging quality practices for application in their organisation's strategic management processes. Hence, this study will examine the most common elements of strategic management processes and then examine how quality practices can be integrated with them.

### **1.3 RESEARCH AIM AND OBJECTIVES**

#### **1.3.1 Aim**

The aim of this study is to establish the importance of focusing on quality management practices during an organisation's strategic planning process.

#### **1.3.2 Objectives**

- 1.3.2.1 To develop an understanding of the importance and use of quality practices as a key element of organisational strategic management or planning.
- 1.3.2.2 To identify and establish the synergy between quality practices and strategic management.
- 1.3.2.3 To use selected tools to demonstrate a means of integrating quality practices during the strategic planning process.

### **1.4 RATIONALE FOR THE STUDY**

It is evident from the literature presented in this study, that there are insufficient quality practices in many organisations. Consequently, this has posed not only a number of problems related to the quality of products and services produced but also to the long term sustainability of an organisation. Therefore, it has been established that there is a need for the integration of quality practices into strategic management and hence, the reason for conducting the research.

The purpose of this study is to emphasise selected quality practices which could be introduced into an organisation's strategic planning process. Perhaps problems such as those highlighted in the problem statement above, may be reduced or eliminated by implementing some of the quality practices identified.

## **1.5 DELIMITATIONS**

The research will be homogenous in nature. The study will focus on the Printing and Packaging Industry in the Ethekeweni Municipality. The region of the Ethekeweni Municipality includes Pinetown, Jacobs/Mobeni, Phoenix Industrial Park, Umgeni Business Park, Glen Anil, Umbilo, Inanda Road and Springfield Park.

## **1.6 DESIGN OF THE STUDY**

A combination of qualitative and quantitative research methods will be used in this study. Trochim (2006:30) supports White (2000:24-25) that conducting a combination of qualitative and quantitative research is an efficient way of collecting data.

### **1.6.1 Data Collection**

Kumar (2005:22) explains that anything that becomes a means of collecting information for a study is called a “research tool”. For example, questionnaires, interviews and observation are all classified as research tools. He also states that a combination of data collection tools is often useful, in order to increase the validity of the data being collected.

The research tools used in this study will be questionnaires, interviews and structured observation. The Statistical Package for the Social Sciences (SPSS) will be used to analyse the data.

### **1.6.2 Preliminary Work**

Pilot work in the form of questionnaires and interviews will be conducted on 10 organisations in the Printing and Packaging Industry. The detailed results of the pilot study will be presented in Chapter 3.

### **1.6.3 Main Study**

The main study will consist of 30 organisations in the Printing and Packaging Industry. The results of the main study will be interpreted and presented graphically in Chapter 4.

**1.6.4 Population and Sampling**

The sampling frame will consist of all the Printing and Packaging organisations in the Ethekweni Municipality. The regions will include Pinetown, Jacobs/Mobeni, Phoenix Industrial Park, Umgeni Business Park, Glen Anil, Umbilo, Inanda Road and Springfield Park.

This study will make use of probability sampling methods, such as simple random sampling and stratified sampling. Stratified sampling will be used to conduct the pilot study for this research. It will be carried out using geographical location of the various organisations. Stratified and simple random sampling will be used for the main study for this research.

**1.7 Chapter Outline****Chapter 1 Introduction**

The introduction included the aims and objectives of the study. It highlighted the need for the study and overall structure of the research.

**Chapter 2 Literature Review**

The literature review will be based on relevant information pertaining to quality management practices and strategic development from various sources.

**Chapter 3 Research Methodology and Design**

The methodology will illustrate the design of this research and the research techniques used. It will also present preliminary work and highlight the main study.

**Chapter 4 Results and Discussions**

This chapter will report and discuss the results obtained from the main study.

**Chapter 5 Conclusions and Recommendations**

Conclusions will be generated from the knowledge gained during the study and suitable recommendations will also be propounded.

**1.8 CHAPTER SUMMARY**

This chapter introduced and proposed the research to be undertaken and outlined the chapters of the dissertation. The next chapter presents the literature reviewed during the study.



## Chapter Two

## Literature Review

## **2.1 INTRODUCTION**

The literature below will introduce the evolution of strategic management. It will also focus on the advantages and disadvantages of strategic management in organisations. The advantages will show, how aligning goals and objectives; scanning the environment in which the organisation operates using a SWOT analysis helps organisations gain a competitive advantage. The disadvantages present the effects of a changing environment on the organisation and the impact of management not adhering to pre-determined strategies.

This section then leads to the evolution of the integration of quality practices in strategic management. The advantages of using quality practices during the strategic management process will be discussed. The disadvantages will highlight the repercussions due to the absence of integrating quality practices during the strategic management process.

## **2.2 The evolution of Strategic Management**

According to Grant (2005:1-11) the purpose of strategic management is to match an organisation's strategy, with the business environment that it is associated with. He also states that strategic management is a process by which an organisation manages the formulation and implementation of its strategy. Carpenter and Sanders (2007:7) indicate that there were some criticisms of strategic management. They state that some critics claim that there is insufficient theoretical knowledge of strategic management to help managers make important decisions. The difficulties arise because the environment is constantly changing and effective strategic management requires a continuous flow of theories suitable for new circumstances.

In order to understand the importance of strategic management, it is useful to provide a historical perspective of the origins of this discipline. Strategic management has been enriched over the last twenty years with conceptual frameworks and research findings from a number of different disciplines. More

recently, strategic management has begun to develop its own body of knowledge and hence greater sophistication can be seen in strategic research.

In the 1970s strategic planning began focusing on both the external factors such as the market and its competitors, and internal factors such as the functional activities. It evolved in the 1980s to strategic management and included both the planning and the implementation phases. Strategic plans of the past usually ranged from three to five years. Some organisations could even use these strategies successfully for ten years. This is seldom possible today, because of the rapid change in the business environment (Ginter and White; 1992:253-261).

According to Vinzant and Vinzant (1999:516-531) strategic management has evolved from an early emphasis on planning to become a comprehensive management approach. This helps organisations to align their organisational direction with their organisational goals to accomplish strategic change.

Van Eeden and Venter (2003:23-29) instil the view that strategic management encompasses more than just the management of strategic decision making. Robinson (2005:1-3) supports Van Eeden and Venter (2003:23-29) and proposes that strategic management provides a discipline that enables senior management to actually step back from daily activities, to consider the future of their organisation. Tabije (2007:2-4) contends that each organisation's experience with strategic management is unique, reflects on the organisation's distinct culture, environment, resources, management style and other organisational features.

In summation, Ginter and White (1992:253-261), Vinzant and Vinzant (1999:516-531), Van Eeden and Venter (2003:23-29), Robinson (2005:1-3) and Tabije (2007:2-4) are in agreement that the strategic approach is oriented toward the future. They recognise that the environment will change. This approach leads the manager to ask where the organisation wants to be after a certain period,

what it will need to get there, how to develop strategies and finally, how to manage those strategies to achieve the organisation's goals and objectives. They also recognise that the future cannot be controlled, but the argument can be made that by anticipating the future, organisations can help to shape and modify the impact of environmental change by implementing improved strategic management processes.

The following section will discuss the advantages and disadvantages of strategic management:

### **2.3 ADVANTAGES OF STRATEGIC MANAGEMENT**

This section will focus on the usefulness, the need for aligning organisational goals and objectives, environmental scanning and gaining a competitive advantage.

#### ***2.3.1 Aligning organisational goals and objectives***

Hill and Jones (2007:7-8) define strategic management as the science of formulating, implementing and evaluating cross functional decisions which will enable an organisation to achieve its objectives. It is a process of specifying the organisation's goals and objectives, with a view to developing policies and plans to achieve these goals and objectives. Venter (2006:28) adds that strategic management is an ongoing process that assesses the market in which the organisation is involved, evaluates its competitors and then sets goals and strategies to meet all existing and potential customer needs. It has become increasingly clear, in the literature above, that successful organisations have found ways to ensure that their organisational goals and objectives are aligned with the organisation's mission.

Robinson (2005:4) further elaborates that strategic management provides a means to measure the progress of the organisation. A method of achieving this, is for an organisation to set objectives and measure their success against these

objectives to determine gaps. Therefore, determining the gaps in objectives can lead to improvement of the strategies.

### ***2.3.2 Scanning the environment using a SWOT analysis***

According to Morrison (1992:2) environmental scanning, refers to the organisational practice of scanning, identifying and analysing the external environment, such as issues, trends, threats and opportunities, as part of a larger process of strategic decision making. Organisations scan the environment, in order to understand the external forces of change, so that they may develop effective responses which secure or improve their position in the future.

David (1997:105-111) states that, the strategic management process is based on the belief, that the organisation should monitor internal and external events and trends so that timely changes can be made as needed. Vinzant and Vinzant (1999:516-531) are of the view that this process is advantageous and it can help organisations to cope successfully, with the complexity of the environment and with change. Therefore in order to survive in the long term, all organisations should be capable of astutely identifying and adapting to environmental change.

The benefits of the strategic management process are aimed at allowing organisations to effectively adapt to a continually changing environment over a long period. Strategic management provides a vision of the future, clarifies threats and opportunities and determines methods to lever strengths and mitigate weaknesses (David, 1997:105-111). This can be achieved by identifying strengths, weaknesses, opportunities and threats, termed SWOT analysis (Hill and Jones, 2007:7-8). They confirm the beliefs of David (1997:105-111) that the SWOT analysis scans the internal and external business environment as well as identifies strategies that align the organisation's resources and capabilities, to the demands of the changing environment.

Scanning the environment provides a strategic initiative that is useful in determining organisational strategies. The consequences of scanning includes; fostering an understanding of the effects of change on organisations and bringing about expectations of change, to bear on decision making.

The following is an illustration of a SWOT analysis.

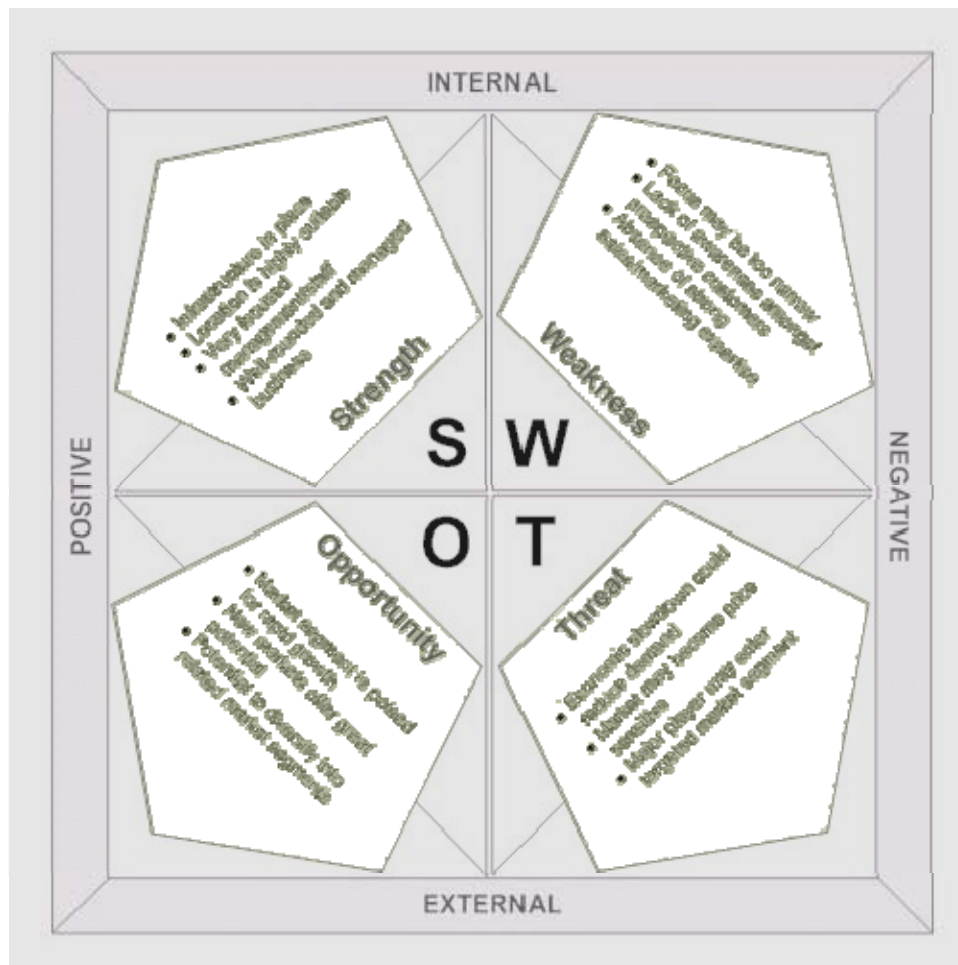


Figure 1 – SWOT Analysis (adapted from: Morrison, 1992:2)

Figure 1 represents the strengths, weaknesses, opportunities and threats that occur in a business environment. This analysis can help organisations to monitor their internal and external environment and formulate strategies accordingly.

### **2.3.3 *Gaining a competitive advantage***

Calcagno (1996:2) and McCell (2000:4-13) believe that a competitive advantage is obtained as the result of an organisation's planned strategy. The strategic direction is realised for the organisation to produce greater profits than their competitors. Many factors are equally important in producing a position of success.

The study of mechanisms responsible for creating a sustainable competitive advantage provides many interesting opportunities, to investigate the factors for the organisation's competitive success. Kelemen (2003:41-45) explains that strategic management is considered as a useful tool for gaining a competitive advantage. This competitive advantage enables organisations to survive against its competition in the long term. Vinzant and Vinzant (1999:516-531) are also in agreement with this opinion and express that it encourages managers to focus on plans to compete successfully and be sustainable in the market. McCell (2000:4-13) claims that changes in local and international markets and increased competition have forced organisations to re-evaluate their competitive strategies.

In summary, Hill and Jones (2007:7-8), Venter (2006:28), Robinson (2005:4), Morrison (1992:2), David (1997:105-111), Vinzant and Vinzant (1999:516-531), Calcagno (1996:2), Kelemen (2003:41-45) and McCell (2000:4-13) express the philosophy that the effectiveness of strategic management must be assessed based on the degree to which it enables organisations to accomplish strategic goals and objectives. Therefore it is desirable for organisations to establish measures, such as aligning their organisational goals and objectives with strategic plans and objectives, as well as taking cognisance of competitors and conducting a SWOT analysis to scan the internal and external environment, with the view that the decisions can be adjusted over time, to ensure that the organisation achieves its desired goals and objectives.

## **2.4 DISADVANTAGES OF STRATEGIC MANAGEMENT**

This section will show some the potential disadvantages of strategic management that may arise. The disadvantages will be discussed in terms of a changing environment and changing strategic plans on the strategic management process.

### ***2.4.1 The lack of a SWOT analysis in a rapidly changing environment***

Madu, Aheto, Kuei and Winokur (1996:57-72) assert that in a competitive environment, quality is the key to an organisation's survival and success. It is clear in today's turbulent environment that an organisation's survival depends on the ability to satisfy customers' needs and wants and to compete in globally changing environments. But, to compete effectively, the organisation must respond to the dynamic changes in its internal and external environment.

This is evident from Xerox Copiers. In the late 1990s, they did not identify that the demand for copiers were increasing due to changing technology. This resulted in a decrease in sales from 85% to 70%. Madu, Aheto, Kuei and Winokur (1996:57-72) are of the opinion that this occurrence was due to the organisation's lack of adherence to a SWOT analysis.

According to Strickland, Thompson and Gamble (2001:26) profitable organisations must be willing to make changes while they are still successful, that is, before any major environmental change becomes imperative for survival. Mintzberg (2000:24) reminds us that the purpose of strategic management is to match an organisation's strategy with the environment it is in. He adds that due to the constantly changing environment, effective strategic management requires a continuous flow of new theories suitable for the new and changing environment.

The literature above maintains that, organisations have to deal with dynamic and uncertain environments. The authors cited are in agreement that the organisation



should actively and continuously look for opportunities to exploit their competencies and strategic abilities, adapt and seek improvements in every area of the operations [Madu, Aheto, Kuei and Winokur (1996:57-72); Strickland, Thompson and Gamble (2001:26) and Mintzberg (2000:24)]. SWOT analysis was commonly recommended by all the authors above as a tool to achieve this.

Hill and Jones (2007:132-134) state that organisations find it difficult to change their strategies in order to adapt to a changing competitive environment. They use the International Business Machines (IBM) Corporation as an example to explain this problem. For 30 years IBM was viewed as the world's most successful computer corporation. Then in a space of a few years they ran at a loss of \$5 billion. International Business Machines problems were caused by a dramatic decline in the cost of computing power. Customers were changing from mainframe computers to personal computers. International Business Machines (IBM) did not anticipate this change or even attempt a SWOT analysis to prevent such a loss. Hence, their lack of response to the changing environment resulted in their downfall. This example serves to highlight the importance of organisations to be perceptive not only in the environment in which they operate but also to the potential environment which could emerge.

On the contrary, Robinson (2005:1-3) expresses the argument that the major disadvantages of strategic management is that it requires the organisation to anticipate the future environment in order to develop strategic plans. He believes that if the future does not unfold as anticipated, then it may invalidate the strategies already taken. Most critically, management should acquire the ability to predict environmental reaction, develop multiple strategies and manage change. Thus, Madu, Aheto, Kuei and Winokur (1996:57-72) confirm that organisations planning for their future survival should be flexible and willing to accept change as inevitable.

**2.4.2 *The changes that occur in strategic plans***

It can be inferred that changes in strategic plans can result in poor decision making and lack of proper strategic management procedures. Therefore there is an old adage which Mintzberg (2000:22) quotes “if you fail to plan, you are planning to fail.” Several reasons can be investigated as to why strategic plans fail. Grant (2005:3-11) identifies some of the reasons why strategic management initiatives fail. These include the failure to understand the customer and the inability to predict environmental change. Tang and Bauer (1995:5-14) are of the view that most organisations do not have explicit operational strategies even though the importance of these strategies are needed. Crowe and Cheng (1996:35-48) support Tang and Bauer (1995:5-14) and elaborate that one of the most important reasons for the latter is the lack of a practical and powerful methodology or practice to translate corporate strategies that lead to overall organisational success.

Tabije (2007:2-4) proposes that in order for strategic management to be a success, organisations must not fail to follow the strategic plan. This is evident from Hewlett Packard, where strategic planning is executed at senior management level and is communicated to middle management and subordinates through the organisation’s internal mail. In this instance, the strategic plans perhaps failed because of a lack of commitment and visibility from senior management and their inability to communicate effectively. Another disadvantage is failure to obtain employee commitment. Employees are always resistant to change because there are no incentives given to them to embrace the new strategic plans.

Ultimately, Friday-Stroud and Sutterfield (2007:561) state that the effectiveness of strategic plans must be assessed based on the degree to which it enables an organisation to accomplish strategic goals and objectives. Therefore, it would be desirable to establish some measures of strategic management so that the plan

might be adjusted over time to ensure that it achieves its desired goals and objectives.

Mintzberg (2000:22), Grant (2005:3-11), Tang and Bauer (1995:5-14), Crowe and Cheng (1996:35-48), Tabije (2007:2-4), Friday-Stroud and Sutterfield (2007:561) have contributed to the discipline of strategic management and maintain that, the overall success of an organisation needs to be conceived through proper planning processes and those plans should involve all functional areas of the organisation. For strategic management to be completely successful, organisations must not fail to follow the plan. They should be guided by the set of objectives that they have formulated, envisioning a prosperous business. Strategic management should incorporate open communication channels between senior management and employees and should strive to understand customers more thoroughly.

In addition, Mintzberg (2000:22), Grant (2005:3-11), Tang and Bauer (1995:5-14), Crowe and Cheng (1996:35-48), Tabije (2007:2-4), Friday-Stroud and Sutterfield (2007:561) contend that a lack of a SWOT analysis could lead to devastating results for the organisation. It can be inferred from their work that management should acquire the ability to predict potential environmental change and manage these changes accordingly. Due to the intense competition in today's dynamic and ambiguous business environment, it is imperative that managers find ways to differentiate their organisations from competitors. It is evident that in a rapidly changing environment an organisation's survival depends on its ability to conduct a SWOT analysis, satisfy customers' needs and to compete effectively in global and domestic markets. However, to compete effectively, the organisation must respond to the dynamic changes and embrace it. Perhaps one way to do this is to make more effective strategic decisions, so as to gain a competitive advantage in order to flourish in the future.

In considering the advantages and disadvantages of strategic management and the subsequent critics from various authors above, it is evident that there is an absence of quality practices. Hence, the next section will attempt to show the need for integrating quality practices in strategic management.

Lumpkin and Taylor (2004:8-12) report that many employees have failed in their attempt to bring quality practices to their organisations. This is because these organisations did not embrace quality management practices as a fundamental value. Hence, efforts made to bring quality into the organisation inevitably result in limited success. They recommend that success will be achieved only when organisations integrate quality into their strategic planning process. Calingo (2000:19-37) is of the opinion that the advancement of strategic management over a period of time, covering the latter part of the twentieth century, paved the way for the evolutionary development of quality management practices.

The literature above attempts to show, how, combining various strategic management principles with quality management practices increases the likelihood that managers will make better decisions. This in turn will lead to increased product and service quality and improved performance, which will ultimately lead to greater profits.

### **2.5 The evolution and integration of quality practices into the strategic management process**

Raghunathan, Rao and Solis (1997:192-200) impart the knowledge that the demand for quality is emerging as one of the most critical factors for organisations to survive in the expanding and competitive marketplace. Juran (1989:3) states that “just as the twentieth century was the century for productivity, the twenty-first century will be the quality century.” Evans (2000: 18) found that the most consistent factor among organisations is an obsession with some form of quality. Managing the quality dimensions of an organisation is not different from any other aspect of management. It involves the formulation of strategies,

setting goals and objectives, developing action plans, implementing plans and using control systems for monitoring and taking corrective action.

Over the years there has been an increasing global emphasis on quality management. Quality management practices are contingent on an organisation's strategic management in terms of decision processes. Quality management in organisations involves strong leadership and strategic planning, which is subsequently supported by a management system. Parast and Digman (2007: 802-818) express that quality management has been recognised as a comprehensive management paradigm for enhancing organisational performance and competitiveness.

Hence, it is anticipated that quality practices be integrated with strategic management processes. This is supported by Lakhal, Pasin and Limam (2006:625-646) that in the integration of quality management practices and strategic management provides a synergistic combination that is far more powerful than either of them being operated separately. Grant (2005:1-11) suggests that even when organisations follow sound management practices, they are still exposed to events and problems that can cause strategic failure. In addition, David (1997:110) is of the opinion that the low success rate of organisations is further fuelled by poor quality management practices. DeFoe and Janssen (2001:4-6) are of the view that by integrating quality practices into the strategic management process, it becomes part of a foundation that is essential in supporting the management of quality in an organisation.

Grant (2005:1-11) also proposes that strategic management is a process of defining the purpose and achievements of an organisation. Cleveland (2006:1-14) is of the opinion that successful organisations consistently use quality practices to formulate strategies and to set goals and objectives. Bossink (2002:170-186) is in agreement with Cleveland (2006:1-14) and finds that quality practices support the management of strategically important innovation

processes. In addition, Parast and Digman (2007:808-813) suggest that their studies have shown that quality practices have a strong effect on organisational and operational performance. They also add that many studies have investigated the effects of various quality management practices on operational and organisational performances and this is shown in the following section on the advantages of using quality tools and practices in the strategic management process.

However, Allen and Kilmann (2001:110-131) explain that various quality practices have been identified over the years. Zhao, Yeung and Lee (2004: 575-587) state that quality practices have become one of the most widely accepted philosophies in organisations and one of the most popular research areas in recent years. Calingo (2000:19-37) identifies organisations such as Hewlett Packard, Xerox Copiers and Corning Glass, as those organisations which successfully implemented the integration of quality practices with strategic management processes. The key to their success was an understanding of quality practices and the ways in which they can be integrated into organisational strategies.

Tan, Kannan, Handfield and Ghosh (2000:174-182) confirm that quality management practices have played an increasingly prominent role in the strategic planning process. In addition, Ittner and Larcker (1997:293-314) believe that a key assumption in the strategic planning process is a need to align specific quality practices with the organisation's chosen strategy. They employ data from the automotive and computer industries in Canada, Germany, Japan and the United States and have examined whether organisations following the integration of quality practices and strategic management, have adopted the strategic processes required. Results indicated that organisations that plan with more emphasis on quality in their strategic plans, tend to make greater use of strategic quality management. The data presented from the automotive and

computer industries shows the positive effects of integrating quality practices into strategic management.

Aravindan, Devadasan and Selladurai (2001:79-96) explain that the quality and strategy integration, occurs when top management has translated the fundamentals of quality practices into at least four strategic planning objectives, which are:

- continuous improvement in quality products and services
- greater responsiveness from the manufacturing department
- greater flexibility in adapting to customer needs
- cost reduction through improved quality and waste elimination

They conclude that this process of integration works best when quality goals, organisational strategies and other quality tools are completely included in the organisation's strategic plan. The advantages and disadvantages in the following section will reflect the importance and the impact of quality practices in strategic management. The potential quality practices and tools which can be used during the strategic management process will also be discussed.

## **2.6 ADVANTAGES OF USING QUALITY TOOLS AND PRACTICES IN THE STRATEGIC MANAGEMENT PROCESS**

The following advantages will indicate the usefulness of the integration of the various quality practices such as TQM, Hoshin Kanri, ISO 9001:2000, SQM and Six Sigma approach into the strategic management processes of an organisation.

### **2.6.1 *The advantages of Total Quality Management (TQM)***

Total Quality Management is a world renowned practice. A TQM-based organisational strategy is defined by Oakland (2003:56) as a strategy based on a philosophy of continuously improving organisational processes, in response to a demanding and changing environment.

McCell (2000:4-13) expresses the opinion that many organisations have overlooked the importance of TQM in developing relevant strategies to gain a competitive advantage. Further, Stevenson (2005:398-401) refers to TQM as a quest for quality in an organisation which leads to continuous improvement.

Svensson (2006:22-29) claims that TQM practices have gained an increased interest since the 1990s. Total Quality Management has become well established as a system for improving both the performance of organisations and customer satisfaction during the 21<sup>st</sup> century. Total Quality Management can also be viewed as an organisation wide philosophy requiring all employees at every level of an organisation to focus their efforts to help improve each activity of the organisation. Kenyon (1997:7) exclaims that TQM represents a core aspect of selected Japanese organisation's management system and is stated as the means by which the overall control system and TQM are deployed. This was further adopted by Xerox Copiers through benchmarking. They identified the success of other organisations and realised their deficiencies by integrating TQM with their strategic initiatives.

Leonard and McAdam (2004:254-266) express the perspective that the task of improving and ensuring superior quality is the responsibility of everyone in the organisation. The employees in the organisation are required to make quality a culture in their daily lives. Furthermore, it is also important to understand that TQM is a long term perpetual improvement process requiring significant resources. It is a continuous effort with no deadlines or target dates. Hence, TQM becomes a way of life.

It is inferred by Oakland (2003:56), Svensson (2006:22-29), Leonard and McAdam (2004:254-266) that TQM plays a crucial and significant role in the strategic management process of an organisation. Mehra, Hoffman and Sirias (2001: 855-876) propose that TQM concepts be applied to implement sustainable strategic initiatives which provide a competitive advantage.



Oakland (2003:56), Svensson (2006:22-29), Leonard and McAdam (2004:254-266) and Mehra, Hoffman and Sirias (2001: 855-876) have even argued that without sustainability, TQM initiatives are usually doomed to fail, since the essence of TQM is a continuous improvement and the integration of quality practices into daily organisational and operational strategies. From the literature above it is evident that it is advantageous to integrate selected quality practices into the strategic management process in order to gain a competitive advantage, continuous improvement and sustainability in the market.

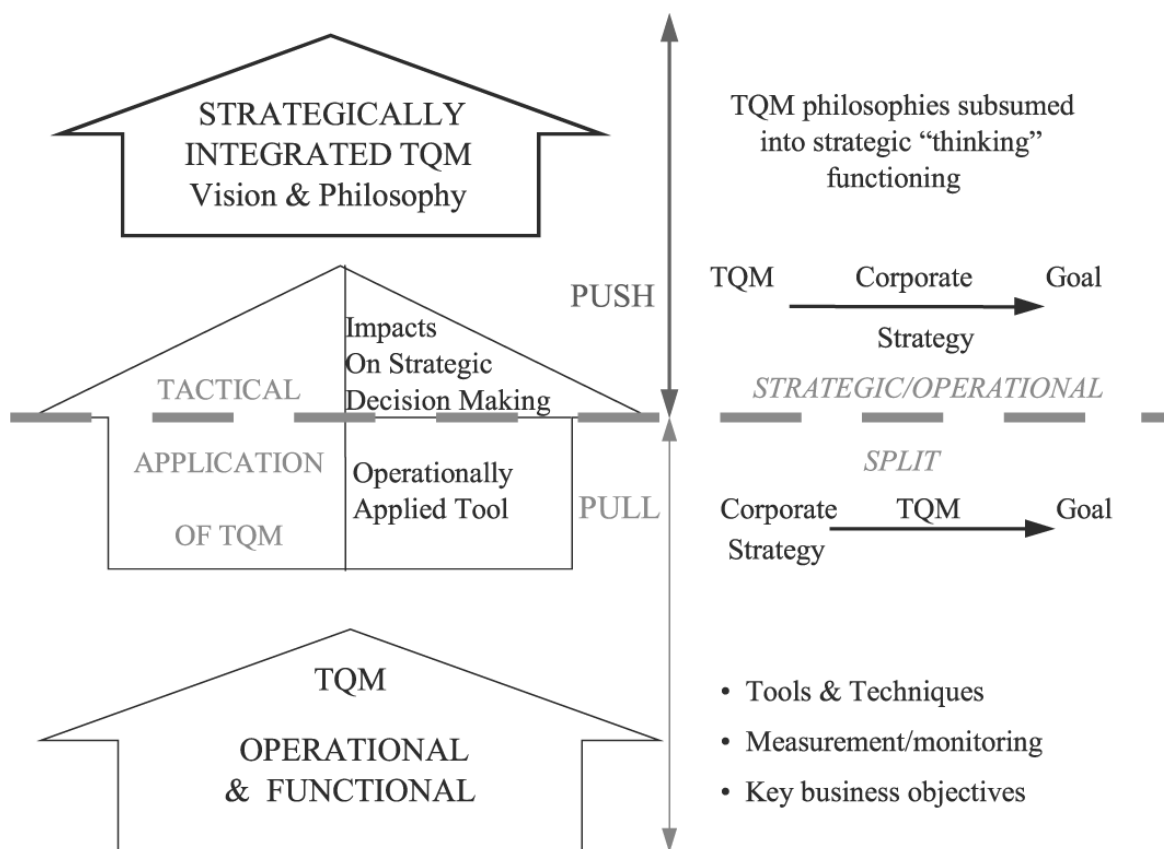


Figure 2 – The integration of TQM in strategic management decisions (adapted from Lakhal, Pasim and Limam, 2006:625-646)

Figure 2 indicates the usefulness of TQM philosophies within the strategic planning process.

**2.6.2 The advantages of Hoshin Kanri**

Another tool which can be used to integrate quality practices in strategic management is Hoshin Kanri. Zairi (2006:149-159) describes a technique for strategic planning, known as Hoshin Kanri, which has been in operation in many organisations since the 1960s.

Zairi and Erskine (2004:40-53) define Hoshin Kanri, as a systematic quality approach to planning, auditing and managing corporate visions and organisational strategies. Tennant and Roberts (2000:77-90) promulgate the theory that Hoshin Kanri does not replace other management strategies. It is a type of strategic planning system that orchestrates continuous improvement and breakthroughs. It selects areas that need improvement, makes certain that the right people get involved and that the improvement is implemented.

There are 5 elements of Hoshin Kanri Planning. They are as follows:

- focus for the organisation in the form of a few breakthrough goals that are vital to the organisation's success
- commitment to customers, meeting the needs and expectations that customers rank as most important
- deployment of the organisation's focus so that employees understand specific contributions to it
- tools and techniques that are helpful and easy to implement such as quality tools
- ongoing evaluation of progress to facilitate learning and continuous improvement

The following diagram (Figure 3) illustrates the Hoshin Kanri process implemented by Procter and Gamble Soap Division.

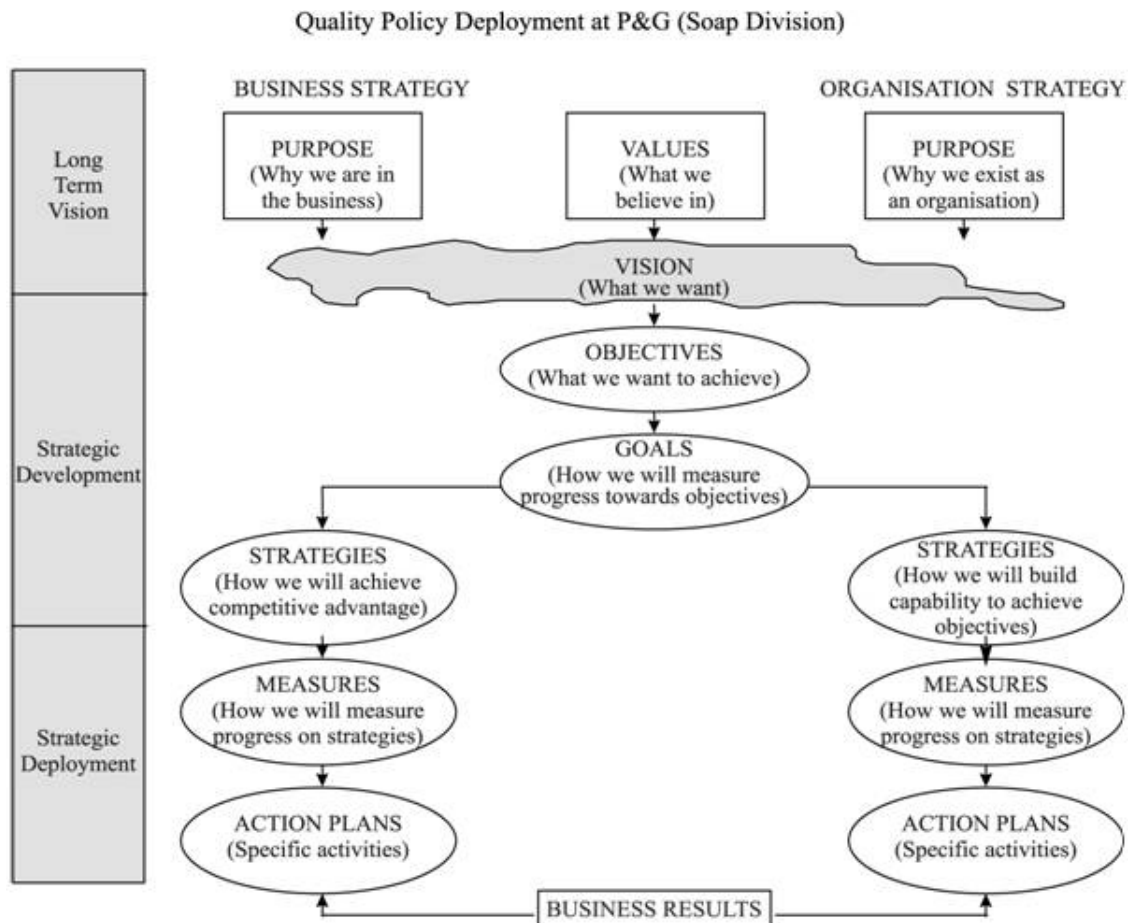


Figure 3 – Hoshin Kanri Process (adapted from Zairi, 2006:149-159)

Figure 3 shows the Hoshin Kanri planning process of Procter and Gamble Soap Division and illustrates how quality is deployed in their strategic management process.

Hoshin Kanri acts as a management compass that steers everyone in the organisation in the same direction, toward a common goal. Therefore it can be concluded that the Hoshin Kanri system contributes to continuous improvement in strategic management.

### **2.6.3 Advantages of ISO 9001:2000 Certification**

The ISO 9001:2000 code of practice provides another quality tool which can be used in the strategic management process. Allen and Kilmann (2001:110-131) identify five key areas related to quality which can be included into the strategic management process.

- the development of a continuous improvement culture throughout the organisation and strategic integration
- the deployment of quality practices in functional levels of the organisation
- customer focused strategic planning
- gaining a strategic advantage
- a level of priority given to continuous improvement

In addition, these characteristics are consistent with the principles of ISO 9001:2000. The focus on the ISO 9000 series was initiated in 1987 by the International Organisation for Standardisation. ISO 9001 involves a third-party registration by certifying an organisation against the requirements of a quality management system. Terziovski and Samson (1999:393-409) found that high performing organisations focus on quality practices such as breaking down barriers between functional levels, continuous improvement and ISO 9001 certification. They contend that an integrated quality strategy involving TQM and ISO 9001 certification is the most effective competitive strategy for sustaining organisational performance.

### **2.6.4 The advantages of Strategic Quality Management (SQM)**

Strategic Quality Management can also be regarded as a useful tool during the integration of quality practices and strategic management. Brown (2005:209-222) introduces the framework of SQM emphasising that quality must be defined from the customer's point of view. He elaborated that quality practices should be integrated with the strategic planning process. Furthermore, this integration requires organisation wide commitment.

Leonard and McAdam (2002:507-522) proclaimed the concept that SQM consists of a comprehensive framework for developing organisational objectives and improving quality efforts. Calingo (2000:19-37) defines SQM as the formulation and deployment of quality management within the overall framework of strategic planning. Under this framework, each strategic change is evaluated in terms of how compatible it is with the process, the organisation and the environment. Cost of quality, quality function deployment, target analysis and other quality management mechanisms are presented under this framework. The use of these mechanisms is a practical way of deploying SQM, thereby making quality management practices more effective and successful.

In the early 1980s, the success of Japanese products such as Toyota in the US market encouraged American manufacturers to adopt Japanese practices in a quest to improve their quality and lower their costs. Another benefit of SQM is that it enables an organisation to present information on product or service to customers for extensive market research in an attempt to determine if the organisation satisfies all the customers' needs or if they may have omitted desired needs.

Aravindan, Devadasan and Selladurai (2001:80-94) assert that SQM consists of three phases which can be included in the integration of quality management and strategic management. The three phases of SQM are:

- the quality concepts are integrated into the vision and goals of the organisation
- the formulation of the policies and actions required for managing change
- the deployment of the strategy

It is evident that the strategic aspects of quality are recognised and embraced by top management in the strategic planning process. Instead of viewing quality in a defensive way, quality can now be used to maximise an organisation's competitive opportunities.

As a result, Tummala and Tang (1996:8-36) conclude that quality needs to be defined from the perspective of the market competition and the customer's expectation, instead of in terms of predetermined, internal standards or design specifications. They add that in order to reach this step in the move toward quality, the organisation requires a change in corporate culture and an organisational commitment to continuous improvement.

The literature above shows that quality needs to be redefined in terms of satisfying the requirement of the customer and be made a part of the strategic planning process. The need for speedy response to the customer, for flexibility in operations and for increasing awareness and skill on the part of employees have perhaps also made the empowerment of the employees in the workplace a necessity. Quality of the workplace has therefore become a strategic requirement for future survival.

### ***2.6.5 The advantages of Six Sigma (6 $\sigma$ )***

Mikel (2000:46) defines Six Sigma (6 $\sigma$ ) as a business-driven, multi-faceted approach to process improvement, reducing costs and increasing profits. The primary goal is to improve customer satisfaction and thereby profitability, by reducing and eliminating defects.

The Six Sigma model is a highly disciplined approach that helps organisations focus on developing and delivering "near perfect" products and services. The word Sigma is a Greek letter used for a statistical term that measures how far a given process deviates from perfection. The higher the Sigma number, the closer the perfection. The central aim of Six Sigma is that it can measure how many defects there are in a process and determine how to eliminate those defects in order to get as close to zero defects as possible (Harrold, 1999:37).

Evidence from an aircraft manufacturer shows that the current average organisation operates on Four Sigma which corresponds to 6210 defects per million. This can be interpreted as 6 defective aircrafts out of 1000 aircrafts.

When implementing Six Sigma, fewer than 3,4 defects per million can be achieved. It can be inferred as 0,00034 defects out of every 1000 aircrafts. To obtain these results, processes were optimised, process capability improved and the defects per million dropped to 0,00034. This indicates that the quest for zero defects led to superior quality products and, hence, it can be deduced that zero defects is a strategic goal that can lead to continuous improvement and customer satisfaction.

The Six Sigma approach above was originally developed by Motorola to systematically improve processes by eliminating defects. The success of Six Sigma as a quality tool can be seen in the example below:

The integration of quality concepts into the vision and goals was Motorola's Six Sigma quality initiative to reduce defects in their products to under 3,4 defects per million. Motorola's Six Sigma quality initiative has been one of the driving forces in achieving this goal (Jaideep, 1999:43).

In addition, Friday-Stroud and Sutterfield (2007:562) explain that the basic principle of the Six-Sigma approach as a managerial decision making tool and includes the following:

- aligning key business processes and customer requirements with the organisation's strategic goals
- identifying corporate sponsors to champion projects, supporting the team, obtaining necessary resources, and helping organisational members to overcome the resistance to change
- instituting a standard measurement system to be used throughout the organisation
- identifying appropriate measures that focus on organisational results and accountability
- providing extensive six-sigma and project management training

- deploying appropriately trained teams to improve quality and profitability while reducing time and waste
- setting improvement goals

DeFoe and Janssen (2001:4-6) state that by incorporating an initiative like Six Sigma into strategic management, it will enable an organisation to plan and execute breakthroughs. Over the long term, the effect is to achieve competitive advantages.

There are similarities and differences between Six Sigma and TQM. The similarities are: customer interaction, the environment in which the organisation operates, customer satisfaction, cost reduction and increased profitability (Friday-Stroud and Sutterfield, 2007:562).

Six Sigma is similar to TQM in its focus on techniques for solving problems and using statistical methods to improve processes. However, TQM emphasises organisation wide involvement, the Six Sigma approach is to train experts who work on solving important problems while they teach other employees in the organisation to implement quality improvements.

Six Sigma is a powerful approach to achieve breakthrough improvements in manufacturing, engineering and organisational processes. The approach relies heavily on advanced statistical methods that complement the process and product knowledge to reduce variation in processes. It is a new way of operating a business that would eliminate the existing defects efficiently and would prevent defects from occurring in the future. Different strategies are used by organisations to introduce and deploy Six Sigma approaches. Each of these strategies has advantages and potential failure modes that must be addressed and avoided.

It is evident from the advantages of integrating quality practices into the strategic management processes of an organisation that the aim of the integration is the



sustainability of an organisation, gaining a competitive advantage and most importantly, the need for continuous improvement is encouraged. This can be achieved only with an organisation-wide commitment.

It has been established by Oakland (2003:56), Svensson (2006:22-29), Leonard and McAdam (2004:254-266), Mehra, Hoffman and Sirias (2001:855-876), Zairi (2006:149-149), Allen and Kilmann (2001:110-131), Terziovski and Samson (1999-393:409), Aravindan, Devadasan and Selladurai (2001-80-94), Friday-Stroud and Sutterfield (2007:562), DeFoe and Janssen (2001:4-6), Sharma and Gadenne (2001:433-445) and Chin, Tummala and Tang (2002:213-218), that the synergy between the quality practices mentioned above and strategic management have been identified and does exist. This synergy has led to continuous improvement, customer satisfaction, sustainability of the organisation in the market, an improved competitive advantage, increased organisation wide commitment and greater profitability.

It also shows that quality management continues to be an enormous part of an organisation. It underpins all that the organisation is trying to achieve. In a progressively competitive environment, quality is the key to an organisation's success and survival. To compete effectively, organisations should embrace the principles of the various quality principles and integrate them into their strategic initiatives. Thus, organisations that are planning for the future survival will be flexible and able to embrace any circumstance.

Evans (2000:31-36) states that there is a fairly universal agreement among quality experts that effective organisations will incorporate quality into their strategic planning process as a vital element. He cautions that when quality is neglected, it cannot be built later into the organisation. It must be built around quality planning.

Until a few years ago, very few organisations attempted to integrate quality practices with strategic initiatives. Despite the increased global evidence that has been identified in the literature above and the culture of continuous improvement, many organisations have tried implementing this integration. Some organisations have even remained unconvinced of the substantial benefits that are available. The following disadvantages will be discussed:

## **2.7 DISADVANTAGES OF QUALITY PRACTICES IN THE STRATEGIC MANAGEMENT PROCESS**

The following section will highlight the disadvantages and will show the negative impact of some quality practices on the strategic management process:

### ***2.7.1 The lack of Total Quality Management initiatives***

Chin and Pun (2002:272-294) claim that there is a strong perception that quality practices and strategic planning have a direct relationship with increased organisational performance. However, the latter is difficult to achieve without the development and implementation of a TQM philosophy.

Hasmi (2002:1-4) states that although TQM recommends continuous improvement as a tool for increasing customer satisfaction, many organisations have overlooked including it when developing relevant strategies. It should be recognised that although most experts in this field recognise and foresee improved organisational performances, empirical studies are yet to prove this.

According to Svensson (2006:22-29) the sustainability of TQM can be debated. Karrupusami and Gandhinathan (2007:7) define sustainability as the ability of an organisation to adapt to changes in the business environment to capture contemporary best practices, to achieve and maintain a superior competitive advantage. Recently increasing interest concerning quality management practices have been adopted. However, literature presented from previous years

has shown that TQM initiatives had failed because critical success factors were not in place.

The introduction of many different quality methodologies and practices has generated confusion and frustration for organisations. In the zest to learn about TQM victories and create winning strategies, there is a natural tendency to avoid the pessimism of those who explicitly or subtly criticise the leap toward TQM.

According to Tang and Bauer (1995:21-31) there is some resistance to TQM, because employees perceive TQM as controlling, rather than empowering and a ploy to get them to work harder for fewer rewards. In some instances, it may be seen that TQM is empowering, but not all individuals want empowered jobs.

### **2.7.2 Criticisms of Six Sigma**

General Electric, one of the early adopters of Six Sigma, postulates that Six Sigma is a disciplined methodology of defining, measuring, analysing, improving and controlling the quality in every one of an organisation's products, processes and transactions, with the ultimate goal of virtually eliminating all defects. Six Sigma advocates the need to continue developing this methodology to improve organisational performance (Stamatis, 2000:2).

Despite the evidence above that it does work, Jaideep (1999:4) asseverates that Six Sigma still has its criticisms. There are criticisms about Six Sigma which suggest that the practice is an elitist technique. Through all this, Six Sigma has proven itself to be a highly effective management tool. Most of the incidences of roadblocks to Six Sigma have come from external sources. In the rare events of its failures, they are ultimately determined to have been caused by improper training of Six Sigma employees and not because of system errors.

It is evident from Stamatis (2000:2) that senior management and subordinates in Caterpillar Machinery are not well informed about the benefits of implementing

Six Sigma. This was due to inadequate training and lack of information provided by senior management.

Regardless of its scientific approach towards quality improvement, there are criticisms against Six Sigma. The most vocal one is the viewpoint that there is nothing new about Six Sigma as it imitates already existing and proven techniques such as TQM. This indicates that Six Sigma is just a newer version of TQM practices. While Six Sigma was originally created as a continuous quality improvement technique, today it is significantly different from the TQM approach of the 1980s.

The table below shows some of the key differences between Six Sigma and TQM:

<b><i>Six Sigma</i></b>	<b><i>Total Quality</i></b>
Executive ownership	Self-directed work teams
Business-strategy execution system	Quality initiative
Cross-functional	Largely within a single function
Focused training with verifiable	No mass training in statistics and return quality
Business results oriented	Return on investment
Reduced defects	Quality oriented

*Table 1 – Differences between Six Sigma and TQM (adapted from Jaideep, 1999:4)*

One of the more common criticisms is that it has little to offer that cannot be found elsewhere. It is true, that Six Sigma programmes have incorporated tools that have been useful in previous quality initiatives. Although the quality movement has attempted to move from defect measures to a variable measure of product and process performance, the older methods do not necessarily represent a primitive way of thinking about quality. After all, defect and defective

counts provide tangible, measurable results that can be a useful reflection of performance (Hahn, Doganaksoy and Hoerl, 2002:5).

According to Stamatis (2000:2) another criticism is that although Six Sigma does focus adequately on a preventive and a proactive approach to problems, it is more of an appraisal and corrective action system. There is much more to Six Sigma than appraisal, it includes the education and training of the entire workforce and the creation of an infrastructure of experts who focus on projects to improve quality, timeliness and cost. Furthermore, this criticism unfairly assumes that appraisal programmes are not useful. Appraisal can be a great starting point as it makes the consequences of current practices clear. Appraisals also provide a foundation for identifying and tracking improvements, which is critical to the well-being of any programme.

### ***2.7.3 Poor implementation of Strategic Quality Management***

The following case study about the Netscape Corporation indicates the poor implementation of strategic quality management. In the fast-evolving but very demanding field of Internet browsers, any perceived lack of product or service quality can be fatal. Based on recent news reports, Netscape maintains an open relationship with its customers and tries to be responsive to any difficulty that its customers might face in using its product in different settings. This responsiveness to customers and flexibility in interactions, in conjunction with a very high product quality, are all quality concepts which seem to have been incorporated into the strategic planning of Netscape but might not have been formally and explicitly stated as such (Aravindan, Devadasan and Selladurai, 2001:92). Their empirical research shows that quality practices affected overall organisational performance. There is much debate around the world on what is the best approach to quality improvement. Each practice has its own criticism or disadvantage. Sharma and Gadenne (2001:433-445) report that many organisations' initiatives fail because the aforesaid practices are either not aligned with strategies or because these practices are not properly coordinated with each other.

Therefore, effective quality management cannot be practised in isolation from other initiatives or from the overall strategy of the organisation. Chin, Tummala and Chan (2002:213-218) are of the view that although a plethora of approaches to quality management have been used, little agreement exists on how to implement them, which programmes work and how specific quality initiatives relate to strategic objectives.

Chin and Pun (2002:272:294), Hasmi (2002:1-4), Mehra, Hoffman and Sirias (2001:855-876), Tang and Bauer (1995:21-31), Jaideep (1999:4), Stamatis (2000:2), Hahn, Doganaksoy and Hoerl (2002:5) and Aravindan, Devadasan and Selladurai (2001:92) indicate that there are indeed some downfalls of integrating quality practices in strategic management. One of the major downfalls is that most employees do not want to adapt to new quality practices because this means more work and more training. They foresee changes in the system as a threat to their jobs and this leads to many difficulties in adopting the various quality practices. Another downfall is that management lacks the knowledge of the use of such quality practices and are unable to incorporate them in the strategic planning process.

## **2.8 CHAPTER SUMMARY**

It can be concluded from this review of literature that strategic management has its advantages and disadvantages and that the disadvantages can be remedied through incorporating quality practices in the strategic management processes. It is also important to understand that quality practices have a greater effect on strategic management in that it continually improves the strategic management process, thereby leading to continuous improvement, sustainability and competitiveness.

Presently, the strategic implications and quality management practices are gaining recognition worldwide. Quality is a key competitive weapon in the marketplace. Quality engenders competitive advantage by providing products

that meet or exceed customer needs and expectations. Many organisations have found that quality management can enhance their ability to compete in the marketplace. Quality products and services are essential for organisations seeking to compete globally. Organisations that improve quality acquire a competitive advantage.

Furthermore, a sound integration of quality practices in strategic management complements and directs quality efforts for better performance by ensuring that customer needs are better served and satisfied. Quality management creates new strategies by improving skills and developing resources that allow organisations to take advantage of opportunities and avoiding risks. In addition, as quality management improves organisational performance, new opportunities and eventually new strategies are likely to emerge. This means that there exists a relationship between quality management and strategies and consequently, organisational practices and performance in an organisation. Organisations pursuing different strategies should emphasise different quality management practices, such as the practices identified in this review of literature.

## Chapter Three

# Research Methodology and Design



This chapter will present the design and methodology of the research. It will provide the layout of the dissertation and also highlight the tools selected, present the preliminary work and introduce the main study of this research.

### **3.1 INTRODUCTION**

According to Burgess (2001:2) research methodology is the process for which the researcher obtains research participants and collects information from them. The research design describes what the researcher is going to do with the participants, with a view to reaching conclusions about the research problem. It forms a plan for the study, providing the overall framework for collecting the data; it outlines the detailed steps in the study and provides guidelines for systematic data gathering.

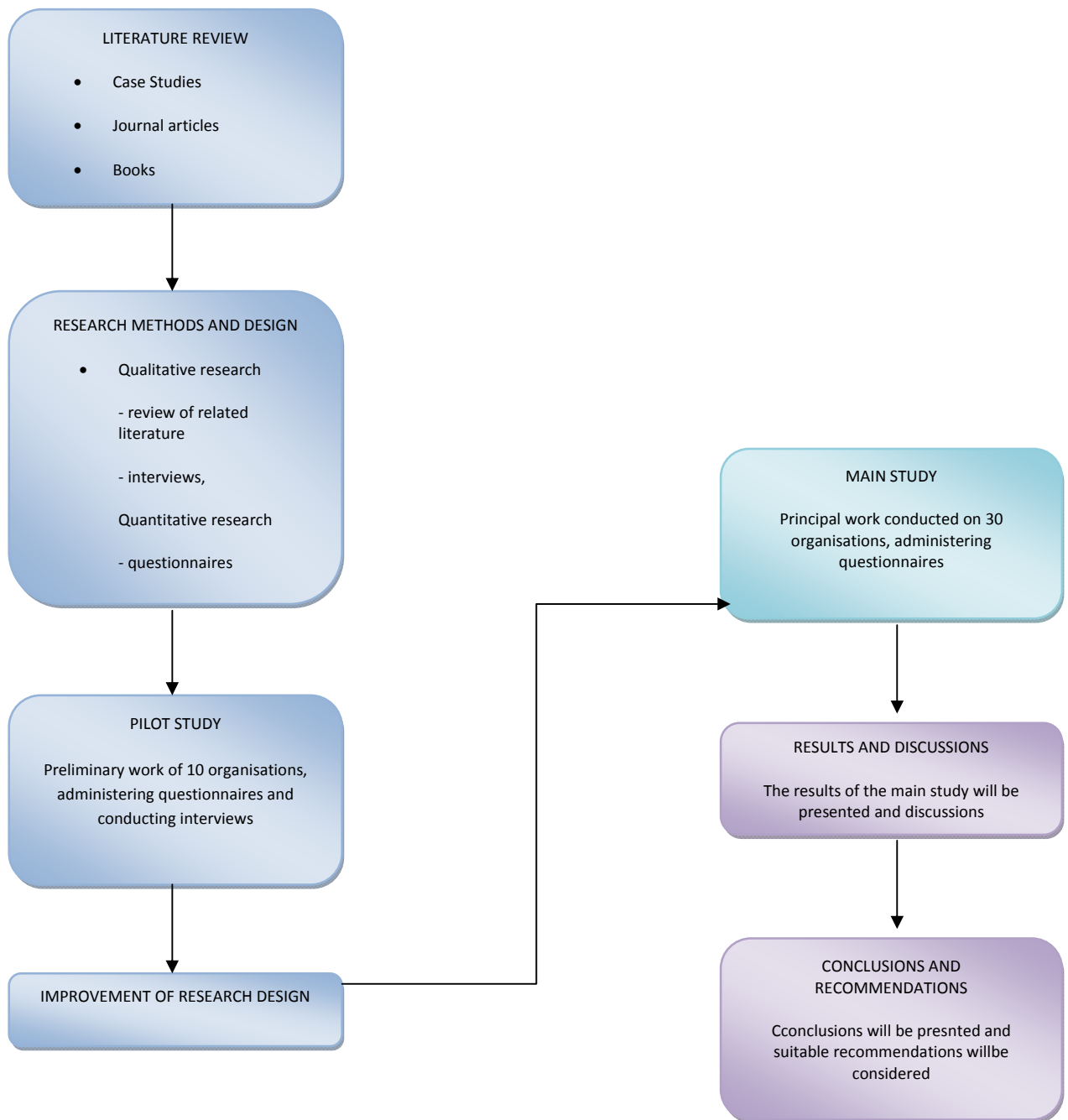


Figure 4 – Flowchart of study

Figure 4 outlines the research process undertaken during this study.

Mouton (2001:101) indicates that humans have a natural tendency to gain more knowledge about a specific phenomenon. In order to gain knowledge, research is an essential part of the process. Leedy and Ormrod (2001:121) describe methodology as an operational framework within which the facts are placed so that their meaning may be seen more clearly. A structured research process can only be adopted with a systemic plan of action. White (2000:20) defines research methodology as the approach a researcher uses to explore a subject or problem under investigation. Two types of research methods are available, that is qualitative and quantitative research methods (Trochim, 2006:30).

### **3.2 QUALITATIVE versus QUANTITATIVE research**

There are two types of research methods available, that is quantitative and qualitative (Trochim, 2006:30). Quantitative research involves an objective way of studying things. With this type of research the results are given numerical values and the researcher uses mathematical and statistical methods to help evaluate the results. Whereas a qualitative method assumes that this is difficult and research is subjective. In this approach data is usually collected in the form of descriptions. This method of research is used to study the way organisations, groups and individuals interact. Therefore combining qualitative and quantitative research will be more efficient for collecting data. For example, after studying certain changes in organisation, the researcher may decide to survey, by questionnaire, opinions of management and employees about the aspects associated with that change. Looking at the same problem from a number of viewpoints is an excellent way to verify the interpretation and conclusions of the data collected.

Goddard and Melville (1996) recommend one of the major reasons for doing qualitative research is to become more experienced and knowledgeable with the phenomenon a researcher is interested in. Examples of qualitative research are face-to-face interviews, focus groups and by observation. Quantitative research involves information or data in the form of numbers. It allows the researcher to measure or to quantify variables under investigation. The best example of quantitative research is

administering questionnaires. They also state that quantitative and qualitative research methods of data collection employed by researchers should be diverse, simple and straightforward.

Mackey and Gass (2005:21) usefully describe three ways of combining the best qualitative and quantitative approaches:

- Integrating methodologies for better measurement
- Sequencing information for better analysis
- Merging findings for better results

Holland and Campbell (2005:21-26) support Mackey and Gass (2005:21) and indicate that qualitative and quantitative methods are often more powerful when combined. A combination of qualitative and quantitative research methods will be used in this study.

### **3.3 TRIANGULATION**

Sarantakos (1998:223-245) defines triangulation as the use of more than one approach to the investigation of a research question in order to enhance confidence in the consequent findings. Triangulation is one of the several rationales for multimethod research. Triangulation is sometimes employed to refer to all instances in which two or more research methods are engaged.

Thus, it might be used to refer to multimethod research in which a quantitative and a qualitative research method are combined to provide a more complete set of findings than could be attained through the administration of either of the methods alone.

#### **3.3.1 Types of triangulation**

Denzin (2005:35) extended the idea of triangulation beyond its conventional association with research methods and designs. He distinguishes four forms of triangulation:

- **Data triangulation**, which entails gathering data through several sampling strategies.
- **Investigator triangulation**, which refers to the use of more than one researcher in the field to gather and interpret data.
- **Theoretical triangulation**, which refers to the use of more than one theoretical position in interpreting data.
- **Methodological triangulation**, which refers to the use of more than one method for gathering data.

The type of triangulation that will be administered in this study will be methodological triangulation. This consequently represents the combination of the quantitative and qualitative research methods. Qualitative research will include reviewing related literature and conducting interviews. Quantitative research will consist of the administration of questionnaires.

### 3.4 DATA COLLECTION

#### 3.4.1 Population and sampling

Bless (2006:87) indicates that a population, often referred to as a target population, is the set of elements that the research study focuses on. It is essential to identify the target population. This can be achieved by developing a list of all the elements in the population and is called a sampling frame.

For the purpose of this study, the target population identified was the Printing and Packaging organisations in the Ethekewini Municipality. This industry comprised of medium and large organisations which manufacture and print on cardboard boxes, paper bags, plastic bags, serviettes, plastic buckets, notebooks and labels. A total of 40 organisations were investigated, 10 for the pilot study and 30 for the main study.

Neuman (1997:204-220) mentions that there are two types of sampling techniques, that is, non-probability and probability sampling. The following table indicates the various types of non-probability and probability sampling.

Non-probability Sampling	Probability Sampling
<b>Haphazard:</b> select anyone who is convenient	<b>Simple:</b> select people based on true random procedure
<b>Quota:</b> select anyone in predetermined groups	<b>Systematic:</b> select every kth person (quasi-random)
<b>Purposive:</b> select anyone in a hard-to-find target population	<b>Stratified:</b> randomly select people in predetermined groups
<b>Snowball:</b> select people connected to one another	<b>Cluster:</b> take multistage random samples in each of several levels

*Table 2 – Differences between non-probability and probability techniques (adapted from Neuman, 1997:207)*

The difference between probability and non-probability sampling makes a basic assumption about the nature of the population under investigation. White (2000:60) is of the opinion that probability sampling works best with an accurate and up-to-date sampling frame and is the preferred method if the researcher intends to carry out any form of statistical analysis. In probability sampling, every sampling unit or member has an equal chance of being selected. This is what makes the sample representative. Probability sampling is a random selection that minimises assumption.

Maree (2007:176) explains that non-probability sampling does not make use of a random selection of population elements and it would therefore be dangerous to draw important conclusions about the population. Trochim (2006:52) adds that since elements are chosen arbitrarily, there is no way to estimate the probability of any one element being included in the sample. In non-probability sampling, reliability is uncertain. Hence, the only way to address data quality is to compare some of the survey results with available information about the population. In some instances there

is no assurance that the estimates will meet an acceptable level of error. Statisticians are reluctant to use this method because there is no way to measure the reliability of the resulting sample.

Simple random sampling was used to draw a sample of 5 organisations to include in the interview process of the study. Stratified random sampling was used to draw a sample of 10 from a population of 40 organisations, to administer the pilot study. The principle of stratified random sampling is to divide a population into groups, called strata. For the purpose of this study, the population was divided by geographical location. The geographical location consists of the Pinetown region, Phoenix Industrial Park, Jacobs/Mobeni, Umgeni Business Park, Umbilo, Springfield Park, Glen Anil and the Central Business District (CBD) because the population of the Printing and Packaging Industry are concentrated in these areas.

The following method was used to calculate the sample of 10 organisations for the pilot study:

$$f = \frac{n}{N}$$

$$= \frac{\text{size of the sample}}{\text{size of the population}}$$

$$= \frac{10}{40}$$

$$= 0,25$$



<i>Geographical location</i>	<i>Number of organisations</i>	<i>Number for pilot study</i>
Pinetown Region	18	$0,25 \times 18 = 4,50 = 4$
Phoenix Industrial Park	3	$0,25 \times 3 = 0,75 = 1$
Jacobs/Mobeni	5	$0,25 \times 5 = 1,25 = 1$
Umgeni Business Park	2	$0,25 \times 2 = 0,50 = 1$
Umbilo	3	$0,25 \times 3 = 0,75 = 1$
Springfield Park	6	$0,25 \times 6 = 1,50 = 2$
Glen Anil	2	$0,25 \times 2 = 0,50 = 0$
CBD	1	$0,25 \times 1 = 0,25 = 0$
<b>Total</b>	<b>40</b>	<b>10</b>

*Table 3 – The calculation of the sample for the pilot study*

### **3.4.2 Questionnaires**

Trochim (2006:32) defines questionnaires as a tool for collecting information to describe, explain or compare knowledge, attitudes, behaviours and socio-demographic characteristics on a particular target group. Kumar (2005:126) further elaborates this definition, by stating that a questionnaire is a written list of questions, the answers to which are recorded by respondents.

Questionnaires are an inexpensive way to gather data from a potentially large number of respondents. Often they are the only feasible way to reach a number of reviewers large enough to allow statistical analysis of the results. A crucial part of good research design concerns making sure that the structure of the questionnaire addresses the needs of the research (Rossman and Rallis, 2003:59).

According to Sarantakos (1998:223-245) questionnaires have strengths and weaknesses which have a significant impact on a researcher's decision about the acceptance of the tool. The following advantages and disadvantages will indicate the impact of using questionnaires.

**3.4.2.1 Advantages**

- 3.4.2.1.1 Questionnaires are less expensive and a researcher can send questionnaires to a wide geographical area.
- 3.4.2.1.2 They produce quick responses and results.
- 3.4.2.1.3 Questionnaires can be completed at the respondents' convenience.
- 3.4.2.1.4 They offer great assurance of anonymity.
- 3.4.2.1.5 They offer less opportunity for bias or errors caused by the presence of an interviewer.

**3.4.2.2 Disadvantages**

- 3.4.2.2.1 Questionnaires do not allow probing, prompting and clarification of questions.
- 3.4.2.2.2 The identity of the respondent and the conditions under which the questionnaire was answered, are unknown. Researchers are not sure whether the right person has answered the questions.
- 3.4.2.2.3 Questionnaires do not provide an opportunity to collect additional information. There is no researcher present to make observations while the questions are being answered.
- 3.4.2.2.4 Due to the lack of supervision, partial response is a possibility.
- 3.4.2.2.5 The response rate is slow, questionnaires are not returned in the specified time period.

The purpose of administering a questionnaire pertaining to this study was to establish whether quality practices are integrated with strategic management in organisations. Literature shows that although organisations have linked quality practices with strategic management, they are unable to establish known quality tools which were used to show improvement. These studies will be used to support this research when designing questions.

Questionnaires were self-administered in this study. The advantages and disadvantages were taken into consideration when designing the questionnaire.

### ***3.4.3 Questionnaire design***

Questionnaire design is a long process that demands careful attention. A questionnaire is a powerful evaluation tool and should not be taken lightly. Design begins with an understanding of the capabilities of the questionnaire and how it can help the researcher (White, 2000:55).

Most problems with questionnaire analysis can be traced back to the design phase of the questionnaire. Well-defined goals are the best way to assure a good questionnaire design. When the objectives of a study can be expressed in a few, clear and concise sentences, the design of the questionnaire becomes considerably easier. The questionnaire in this study was developed to address the aims and objectives of the study under investigation (Leedy and Ormrod, 2001:31).

According to Burgess (2001:15) the design of the questionnaire can be divided into three elements. These are as follows: determining the questions needed, selecting the type of each question and specifying the wording, designing the sequence and overall layout of the questionnaire.

### **3.4.3.1 Determine the questions needed for this study**

The aims and objectives identified in chapter 1 were taken into consideration during the design of the questionnaire.

### **3.4.3.2 Select the type of each question and specify the wording**

Kumar (2005:22) cautions that the choice between open-ended and closed-ended or structured questions is crucial to the design of the questionnaire. Maree (2007:163) states that in addition to open-ended and closed-ended questions, filter and contingency questions, ranking questions and scales may be used to explore how respondents rank certain issues in terms of their importance or preferences. Also, the choice of the type of questions asked will be determined by the nature of the data required.

#### **3.4.3.2.1 Open-ended questions**

Neuman (1997:240) compiled the following advantages of using open-ended questions:

- they permit an unlimited number of possible answers, respondents can answer in detail and clarify responses
- they offer information in areas that may not have been anticipated, they permit creativity and self-expression
- they reveal a respondent's logic and frame of reference.

In considering Neuman's view (1997:240) the questionnaire in this study was designed to include three open-ended questions to clarify attributes pertaining to strategic management and quality practices.

#### **3.4.3.2.2 Filter and contingency questions**

Filter questions elicit information from the general attributes of the research topic and it is usually followed by a contingency question. Filter questions require "Yes" or "No" type responses and contingency questions require the respondent to

substantiate their choice in the filter question. There were very few filter and contingency questions included in the pilot study. This resulted in the lack of clarity in the responses. Therefore the number of these type of questions have been increased in the main study from eight questions to eleven questions.

#### **3.4.3.2.3 Likert Scale**

According to Oppenheim (2003:195) the Likert Scale is widely used because it provides a less cumbersome procedure when compared to other ones. The Likert Scale does not require judges because the sample under investigation is measured on an attitude continuum. This continuum allows choices from “very important” to “important” to “moderately” to “of little importance” and “unimportant”. These choices are weighed from 5, 4, 3, 2 and 1 so that they can be scored. Oppenheim (2003:195) states that this method of scoring was most useful when compared to other methods. In addition, he reports that the reliability of the Likert Scale is preferable to other methods because it allows for a wide range of answers from the respondents. Hence, the Likert Scale was implemented as a tool to design the questionnaire.

#### **3.4.3.3 Design the sequence and overall layout of the questionnaire**

The questionnaire consisted of a covering letter, which explained the nature and content of the research undertaken. The sequence of the questions in the questionnaire was aligned to satisfy the objectives of the study. The questions were easy to read and easy to follow. Sufficient space was allocated for respondents to make relevant remarks where required. All three elements recommended by Burgess (2001:15) were considered during the design of the questionnaire in this study.

Trochim (2006:27) views research design as the consideration and creation of means of obtaining reliable, objective, generalised and valid data. White (2000:25) in agreement with Trochim (2006:27) states that the two important concepts that must be built into the design, are validity and reliability. He reports that validity is concerned with the idea that, the research design fully addresses the research questions and objectives that the

researcher is trying to achieve and that reliability includes consistency and research, and whether other researchers could use the design and obtain similar findings. Overall, the research design is the blueprint or detailed outline for the whole research.

In addition, Maree (2007:216) states that in order for a questionnaire to be standardised, it needs to be reliable and valid. Reliability is the extent to which a measuring instrument is repeatable and consistent. Hence, the Cronbach's Alpha Coefficient was used to measure the reliability of the questionnaires in this study. Maree (2007:216) presents the following guidelines for Cronbach's Alpha Coefficient: 0,90 – high reliability, 0,80 – moderate reliability and 0,70 – low reliability. The result for the pilot study was 0,838 and the result for the main study was 0,880.

Mackey and Gass (2005:107) claim that after spending an immense amount of time and effort on the study, the researcher must make sure that the results of the study are valid. There are many types of validity tests available namely; content, face, construct and predictive validity.

This study used face validity. Leedy and Ormrod (2001:32-33) mention that face validity is the soundness and effectiveness of the measuring instrument. Hence, the questionnaire in this study was validated by an experienced academic to assess its face validity.

#### **3.4.4 Interviews**

An interview is a two-way conversation in which the interviewer asks the participant questions to collect data on the research problem (Maree, 2007:87). According to Burgess (2001:7) interviewing is a technique that is primarily used, to gain an understanding of the underlying reasons and motivations for people's attitudes, preferences or behaviour.

Bless (2006:45) states that interviews provide in-depth information about a particular research issue or question. The method of collecting information through this technique is usually administered in a structured manner. Such interviews involve the use of a set

of predetermined questions and highly standardised techniques of recording (Kothari, 1985:120). Techniques of recording include writing down responses or using tape recorders to record the opinions of respondents according to Maree (2007:89). Interviews formed part of the preliminary work during this study and will be discussed in the next section of this chapter.

#### **3.4.4.1 Structured versus Unstructured Interviews**

According to Sarantakos (1998:222) the structured interview consists of a list of specific questions. The interviewer should not deviate from the list or inject any extra remarks into the interview process. The interviewer may encourage the interviewee to clarify vague statements or to further elaborate on brief comments. The interviewer does not share his or her own beliefs and opinions. The structured interview is mostly a "question and answer" session.

Contrary to structured interviews, the unstructured interview is more relaxed. The interviewer may ask the same sort of questions as in the structured interview, but the style is free-flowing rather than rigid. It is more conversational. The interviewer can adjust the questions according to how the interviewee is responding. The interviewer may even introduce his or her own opinions or ideas in order to stimulate the interviewee's responses. Therefore the unstructured interview requires much more skill and is much more complex.

For the purpose of the pilot study, unstructured interviews were conducted with one member of senior management in each organisation. Senior management consists of Quality Managers, Production/Operations Managers, Quality Supervisors, Floor Managers, Quality Controllers and Directors. The interviews were recorded using a tape recorder, with the permission from senior management. Interviews were not part of the main study due to the busy work schedule and unavailability of senior management.

### **3.4.5 Observation**

Observation is a systematic process of recording behavioural patterns of participants and occurrences without necessarily questioning or communicating with them (Maree, 2007:83). It is an act of noting and recording an event with instruments. The observation method was not employed in this study due to time constraints.

### **3.4.6 Focus groups**

A focus group is a form of qualitative research in which a group of people are asked questions about their attitude towards a product, service, concept, advertisement, idea, or packaging. The questions are asked in an interactive group setting where participants are free to talk with other group members. Focus groups were not included in this study because of time constraints and availability of respondents.

## **3.5 Pilot study**

### **3.5.1 Overview of pilot study**

Burgess (2001:9) defines a pilot study as a small-scale trial prior to the main study. The pilot study detects any flaws or deficiencies in the research and corrects these prior to the main survey or study. The questionnaire is tested using the same administrative procedures that will be used in the main study and the results should be carefully evaluated and used in making changes in the questionnaire before the administration of the main study.

### **3.5.2 Conducting pilot interviews**

During this research, the pilot study consisted of 10 questionnaires and 5 interviews of organisations in the Printing and Packaging industry. Questionnaires for the pilot study were administered using stratified random sampling and interviews used simple random sampling. The results of the pilot study were analysed and assessed using the SPSS package.



### **3.5.3 Results of the pilot questionnaires**

The results of the pilot study are presented below:

#### **Section A - The importance of quality practices**

In this section, 90% of the organisations expressed the view that the implementation of quality practices are very important to the organisation. 90% indicated that they are currently implementing quality management practices and 50% identified that the implementation and success of those practices has led to continuous improvement in their organisation. Continuous improvement was achieved through waste reduction and fewer reject products, fewer machine breakdowns, production increased greatly, better customer focus and greater customer satisfaction.

#### **Section B - The use of quality practices in organisations**

60% of the organisations were ISO 9001 compliant and 70% of the organisations are implementing TQM principles. Some of the organisations employed TQM principles in conjunction with ISO 9001 standards.

#### **Section C - The importance of strategic management**

70% of the organisations implemented strategic management principles and 80% of the respondents indicated that they implemented and adhered to their strategic management plans.

80% of the senior managers highlighted that strategic management processes are important in decision making. They indicated that when strategic initiatives failed, strategic plans are reassessed and reviewed and the organisation implements a SWOT analysis. Thereafter, meetings and follow-ups are undertaken to determine whether the new plans are successful.

**Section D - Current practices of strategic management**

40% of the organisations explained that they conduct a SWOT analysis on a regular basis. It can be inferred, that a large percentage of the organisations did not conduct a SWOT analysis. It is apparent that these organisations do not anticipate any changes in their business environment. Although these organisations did not follow a SWOT analysis they conducted regular audits and meetings to evaluate their current strategic plans. However, 60% of the organisations accepted that a SWOT analysis is important and beneficial to the strategic management process.

**Section E - Identifying the synergy between quality practices and strategic management**

This section reveals that 60% of the organisations incorporate quality practices in their strategic management process. 4 of the respondents have achieved some form of improvements and 3 of the respondents indicated that they experienced difficulties. Two respondents pointed out that they experienced both improvements and difficulties. The common difficulties that were experienced are the changes in organisational culture due to the integration of quality practices within the strategic management process. Employees were afraid of change and did not accept the integration process. However, the improvements that were identified were better communication between the organisational levels, improved production time and better product quality.

Two out of the 10 organisations are fairly new organisations and have not implemented any quality management systems or integrated quality practices with strategic management and have indicated that they are in the process of implementing such systems in the future.

**Section F - Integrating tools and techniques**

70% of the respondents are of the opinion that it is important to integrate quality practices in the strategic management process. All 10 organisations agreed that the integration of quality tools and techniques in the strategic management process will lead

to better strategic decisions and ultimately better strategies. They maintain that the integration process will lead to continuous improvement and improve communication from senior management. They also indicated that quality will improve, productivity will increase and eventually lead to greater profit margins.

A few suggestions made by some the respondents regarding the design of the questionnaire were as follows: Firstly, the Likert Scale was difficult to answer. This could perhaps be due to the inappropriate design. This was rectified in the main study.

Secondly, some respondents suggested that the use of close- ended questions only, as a means to save time. This was requested because of their increase in production in preparation for Christmas.

These suggestions had been considered and incorporated in the questionnaire and changes were made where necessary. In some instances, open-ended questions had to be included to clarify certain attributes. In this way the questionnaire had been redesigned and can now be executed in the main study.

One of the main limitations experienced during the pilot study was the response rate. Some organisations did not return the questionnaires in the specified time period. This delayed the process for evaluating and analysing the questionnaire, which in turn delayed the execution of the main study.

#### ***3.5.4 Results of the pilot interviews***

An interview with Govender (2008) and Ngubane (2008) revealed that although they integrated quality practices with strategic management, their employees would not accept this integration and change. This was perhaps due to employees not being very enthusiastic about the training programmes that occurred as a result of the integration. More training resulted in increased working hours. This shows that employees are either too lazy or adamant and are generally forced to adapt to change. This can lead to low morale and low productivity.

The interviewees, Khan (2008) and Owen (2008) expressed the feeling that their employees and management staff were positive about the integration as they believed that it was an indication of the progression of quality management in the organisation. The integration aimed at newer, improved strategic management processes that, would eventually lead to increased productivity, quality improvement, continuous improvement and customer satisfaction which in turn, would provide greater profits. The results of these findings were further confirmed in the pilot questionnaire.

Reddy (2008) explained that the organisation did not integrate quality practices with strategic management as it was a time-consuming process. The supervisor interviewed stated that they were satisfied with the existing processes and were not willing to consider such an integration because the employees and management did not have the time to implement the integration and to train.

### **3.6 MAIN STUDY**

When the pilot study had been evaluated and the results analysed, the necessary improvements to the questionnaire were made. The main study consisted of the remaining 30 organisations in the target population. Questionnaires were administered as part of the main study. The results for the main study will be analysed using the SPSS package.

### **3.7 CHAPTER SUMMARY**

The chapter emphasised the research methodology and design utilised during the pilot and main study. The study used a combination of qualitative and quantitative research methods which consisted of a review of related literature, questionnaires and interviews. The detailed results will be presented in the next chapter.

# Chapter Four

## Results and Discussions

This chapter will review the results of the main study. The flow diagram below represents the breakdown of the different sections of the questionnaire. It will also give a brief summary for investigating these sections.

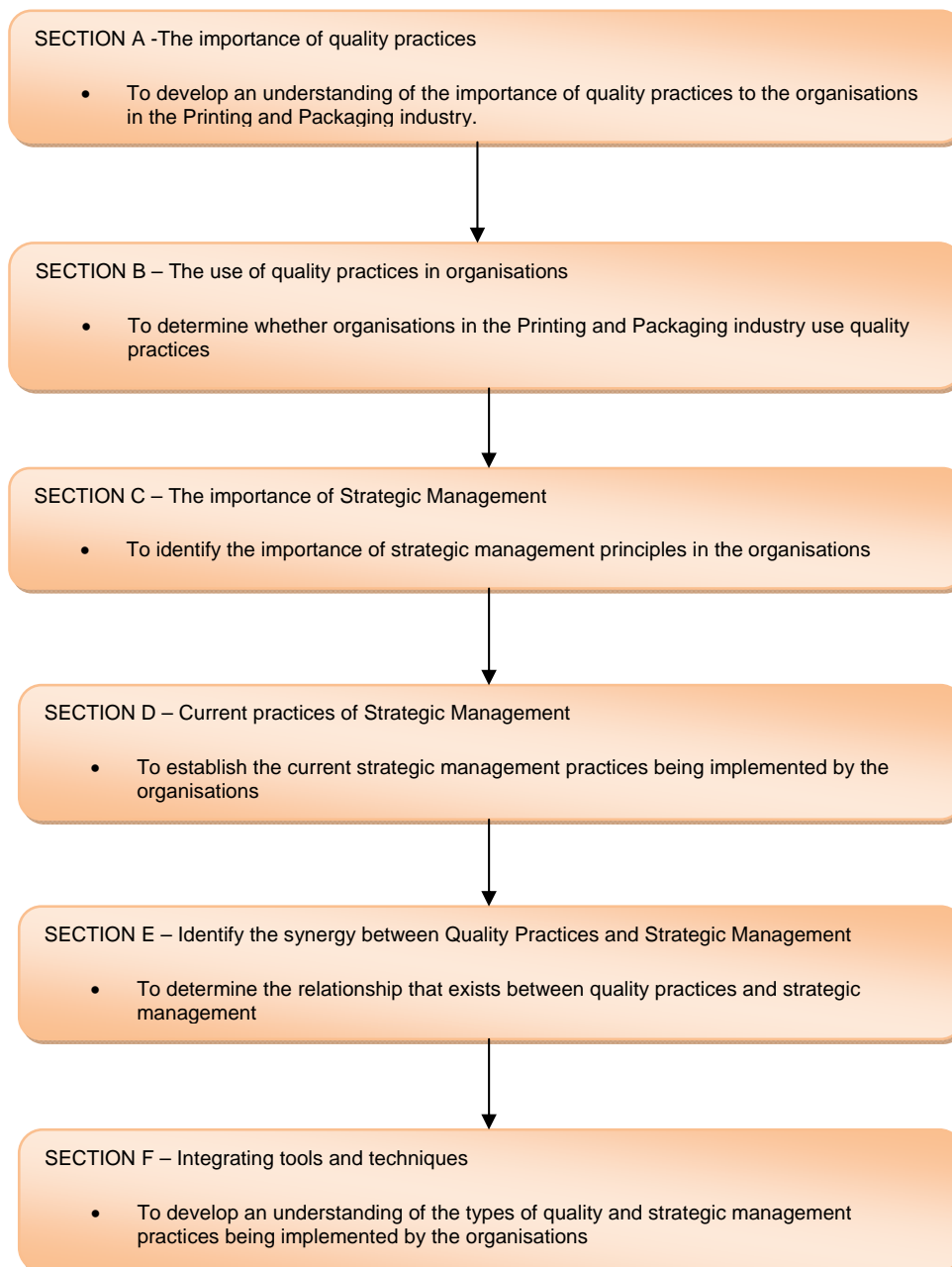


Figure 5 – Flowchart of the design of the questionnaire

The questionnaire was deemed suitable by an academic before it was administered. It was tested for reliability using Cronbach's Alpha Coefficient post survey and was deemed reliable. The detailed results are presented in Appendix F.

#### 4.1 Section A – The importance of Quality Practices

This section presents questions designed using the Likert Scale, contingency and filter type questions. The Likert Scale was used for easy analysis of results and contingency and filter type questions were used to substantiate the opinions of the respondents in order to achieve clarity in their responses.

##### 4.1.1 Question 1 – Importance of implementing quality practices

A growing number of organisations use quality practices as a foundation for generating a competitive advantage and improving organisational performance. This question was intended to determine the importance of quality practices to the organisations in the study.

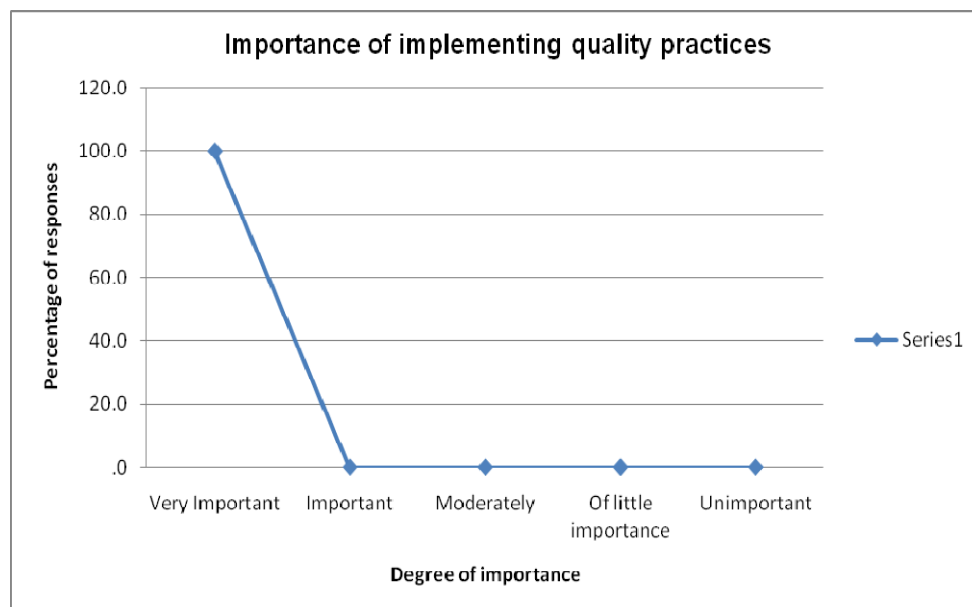


Figure 6 – The importance of implementing quality practices

It is evident from Figure 6 that all 30 organisations in the study agreed that quality practices are very important in the Printing and Packaging Industry. It could perhaps be attributed to quality practices playing an increasingly prominent role in the success of an organisation. This can be supported by Raghunathan, Rao and Solis (1997:192-200) that the demand for quality practices is emerging as one of the most critical factors for organisations to survive in the expanding and competitive marketplace.

#### 4.1.2 Question 2 – Your organisation implements quality management processes.

Due to the importance of quality practices in organisations, this question was used to determine the number of organisations which implements these practices.



Figure 7 – Percentage of organisations implementing quality practices

The results from Figure 7 illustrate that, all 30 organisations in the Printing and Packaging Industry implement some form of quality practices. It is evident from Lakhali, Pasim and Limam (2006:625-646) that the implementation of quality practices is imperative for the success and sustainability of the organisation.



#### 4.1.3 Question 3 – The success of the organisation after the implementation of quality practices.

Literature shows that the implementation of quality practices is vital to the success of an organisation. This question was created to determine the success of organisations after the implementation of quality practices.

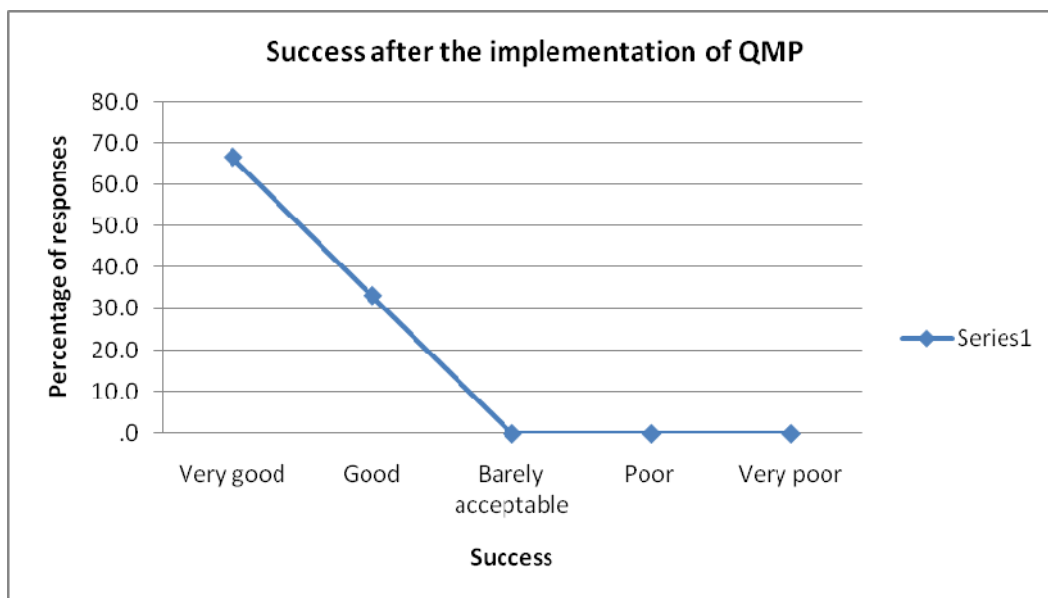


Figure 8 – Percentage of organisations that achieved success after the implementation

66,7% of the respondents expressed the view that their success was very good after the implementation of quality practices. This is consistent with the beliefs expressed by Raghunathan, Rao and Solis (1997:192-200) that the importance of quality practices to an organisation's long-term success has been acknowledged over the last two decades.

#### 4.1.4 Question 4 – The organisation has succeeded in continuous improvement after the implementation of quality practices.

Continuous improvement is a management process whereby delivery processes are constantly improved in terms of efficiency, effectiveness and flexibility. This question

was considered to establish the success related with continuous improvement after the implementation of quality practices.

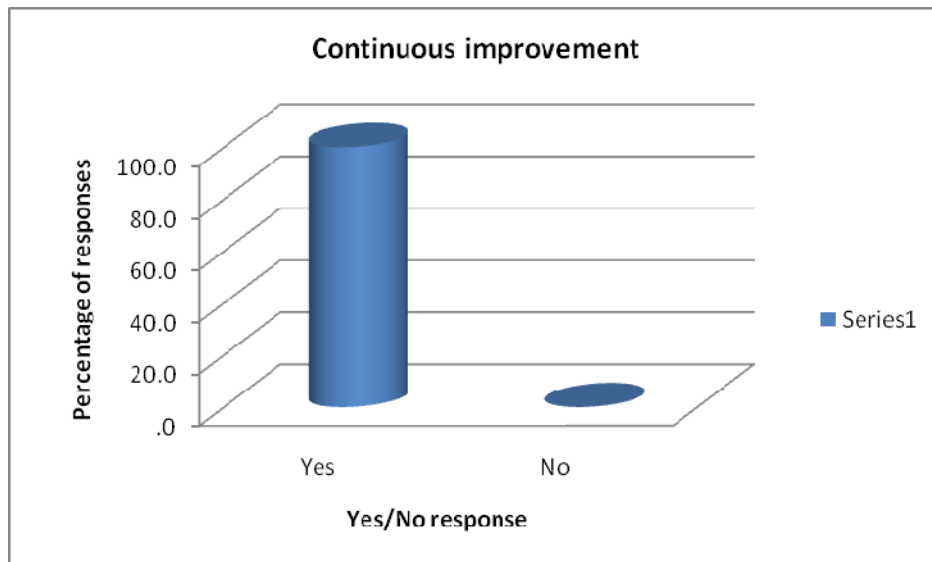


Figure 9 – The organisations that succeeded in continuous improvement

All 30 organisations stated that they experienced continuous improvement in the form of:

- lower costs in operation processes
- the number of defects were reduced
- a reduction in customer complaints which led to improved sales
- increased output of better quality products and less scrap
- higher employee involvement and empowerment to practise continuous improvement
- improvement in efficiency
- customer satisfaction
- increased profits

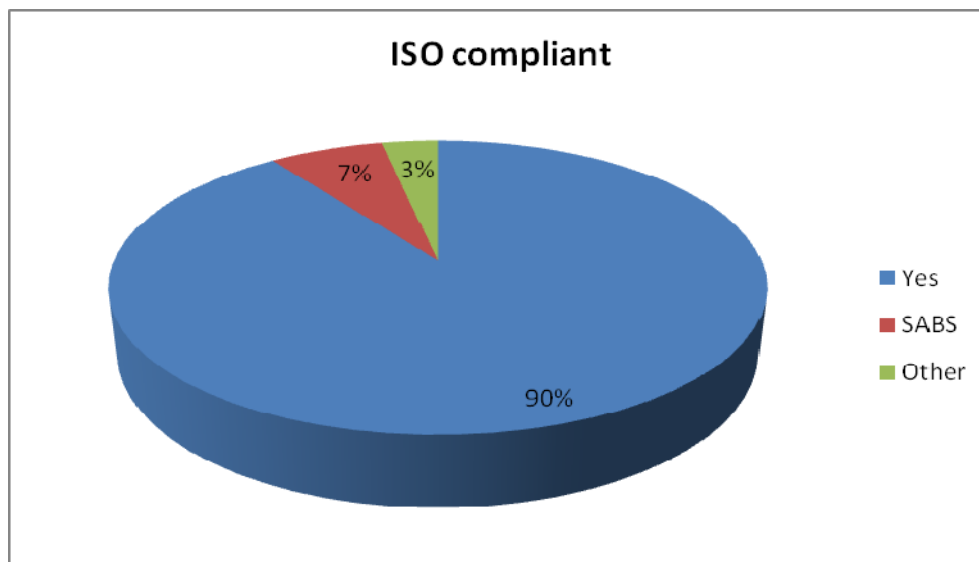
These improvements have contributed to the success of the organisations in the Printing and Packaging Industry and have led to an improvement in process quality, reduction in waste and scrap levels. This would lead to an improvement in product quality and an increase in customer satisfaction and will eventually provide the organisation with fewer customer complaints and increase in sales volume.

#### **4.2 Section B – The use of Quality Practices in organisations**

This section uses contingency and filter type questions.

##### **4.2.1 Question 1 – Your organisation is ISO 9001:2000 compliant.**

In recent years, the emphasis of quality has led to an increased number of organisations having obtained accreditation offered by ISO. This question was used to establish the number of organisations in the Printing and Packaging Industry in the study, that are ISO 9001:2000 compliant.



*Figure 10 – Organisations that are ISO compliant*

The results in Figure 10 illustrate that 90% of the organisations are ISO 9001:2000 compliant. Terziovski and Samson (1999:393) found that high performing organisations focus on ISO 9001 certification. Hence, these organisations conform to ISO 9001:2000 to maintain high quality processes and products.

6,7% of the organisations that were not ISO 9001:2000 accredited, have implemented other SABS approved standards. The other 3,3% of the organisations did not implement any quality management systems because they were new organisations.

#### 4.2.2 Question 2 – Does the organisation apply Total Quality Management?

TQM is a quest for quality in all areas of the organisation. This question intended to obtain information about the organisations in the Printing and Packaging Industry which apply TQM principles.

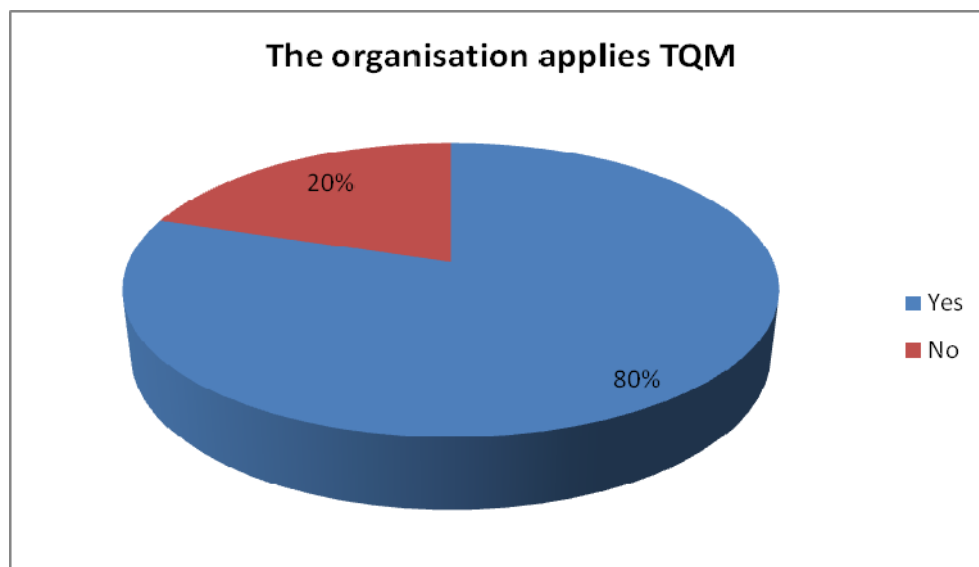


Figure 11 – The implementation of TQM

The results in Figure 11 indicate that 80% of the organisations apply TQM principles. It is evident from the large percentage that TQM principles play an important role in

organisations and this is in accordance with Svensson (2006:22-29) who claims that TQM has gained an increased interest in quality practices and has become well established as a system for improving both the performance of organisations and customer satisfaction in the 21<sup>st</sup> century.

### 4.3 Section C – The importance of Strategic Management

This section includes the Likert Scale, contingency and filter type questions. Open-ended type questions were also included to allow the respondents an opportunity to express their views on strategic management and to enhance the ability to analyse the results.

#### 4.3.1 Question 1 – The organisation implements strategic management principles.

This question was designed to determine whether organisations implement strategic management principles and whether they adhere to prescribed strategies according to an environment in which it operates.



Figure 12 – The implementation of strategic management

The results in Figure 12 confirm that 100% of the organisations implement strategic management principles. It can be inferred from Van Eeden and Venter (2003:23-29) that many organisations implement strategic management because it provides a discipline that enables senior management to step back from daily activities to consider the future of the organisation. Tabije (2007:2-4) states that strategic management is a process of specifying an organisation's objectives and developing plans to achieve their objectives. The strategic management process involves matching the organisation's strategies to the environment it faces. In this way the organisation can gain a competitive advantage.

#### 4.3.2 Question 2 – The organisation gained a competitive advantage through strategic management principles.

The question determined whether organisations have gained a competitive advantage in the Printing and Packaging Industry through the implementation of strategic management principles.

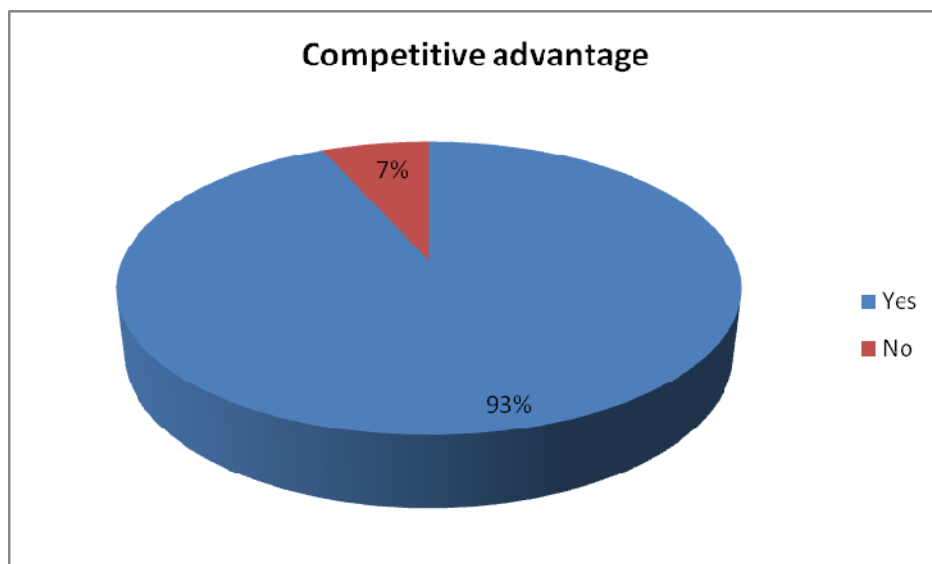


Figure 13 – Gaining a competitive advantage

The results from Figure 13 indicate that, 93% of the organisations investigated gained a competitive advantage through strategic management. According to Calcagno (1996:2)

in strategic management, competitive advantage is the lead that an organisation has relative to competing organisations. This is evident because of:

- increased productivity and output which led to increased profits
- identifying customer needs and meeting those needs with high quality products and affordable prices
- quick response rate and service delivery which increased market share
- higher customer satisfaction
- acquiring new customers and retaining existing ones
- the intentions of senior management were clearly communicated to lower levels which gave the organisation a competitive edge
- regular training of employees to adapt to the changing environment
- planning and strategising for the sustainability of the organisation in future

#### **4.3.3 Question 3 – The importance of strategic management.**

This question was used to establish the importance of strategic management processes to the success of an organisation.

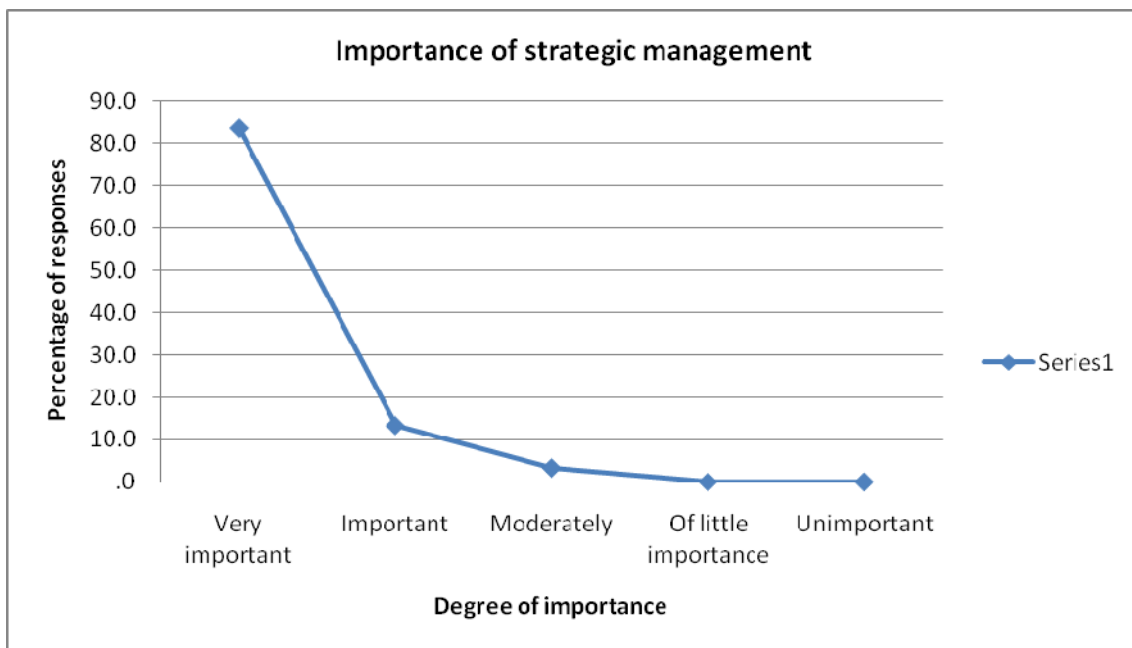


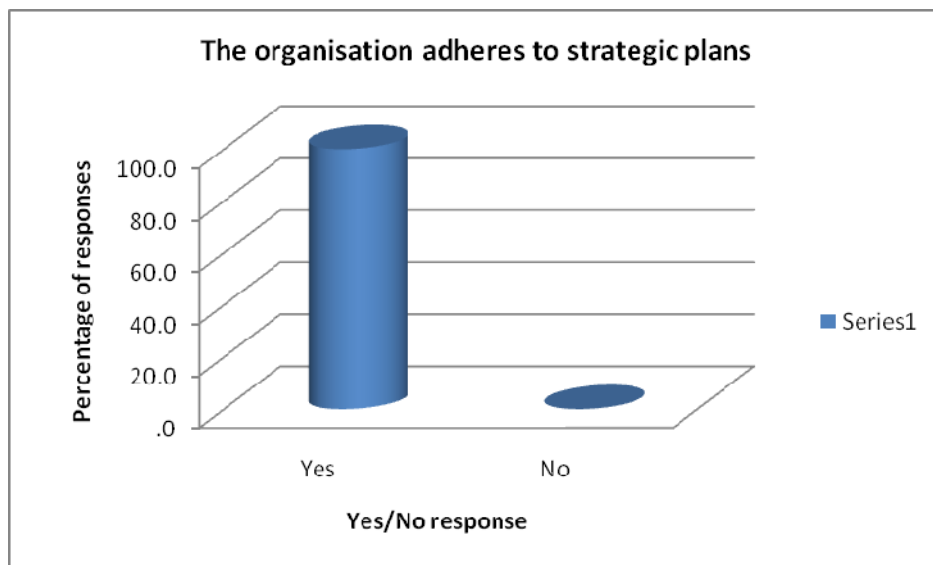
Figure 14 – The importance of strategic management

83,3% of the organisations rated strategic management processes as very important. It can be concluded that a high percent of organisations indicated that strategic management is vital to the overall success of the organisation. This sentiment is also expressed by Ittner and Larcker (1997:293-314).

#### 4.3.4 Question 4 – The organisation adheres to strategic plans.

In order for an organisation to maintain their success in a rapidly changing environment, they should adhere to strategic plans. This question was designed to identify whether organisations adhere to such strategic plans.





*Figure 15 – The organisations adhere to strategic plans*

The results obtained in Figure 15 indicate that all 30 organisations follow strategic plans. It can be inferred from Mintzberg (2000:2) that failure to do so would lead to disastrous consequences for the organisations.

#### **4.3.5 Question 5 – How does the organisation administer corrective action when strategic initiatives fail?**

This question was used to identify the corrective measures that organisations implement when strategic initiatives fail, to prevent its recurrence.

The following results were obtained from the study:

- identified the root cause of failure and adjusted the strategy accordingly
- internal audits are conducted regularly and changes are effected as required
- rectified problems in accordance to ISO 9001:2000 requirements
- followed up on the progress of the strategic plans

- identified target markets where strategic initiatives have failed and implemented plans of action to ease the failure of strategic plans

The corrective actions mentioned above are some of the measures which organisations in the Printing and Packaging Industry have adopted when strategic initiatives fail.

#### **4.4 Section D – Current practices of Strategic Management**

This section includes the Likert Scale, contingency and filter type questions and as well as open-ended type questions.

##### **4.4.1 Question 1 – What are the current practices of the organisation in relation to the strategic management process?**

The organisations were questioned about their current practices that were implemented in relation to strategic management.

The following results were documented:

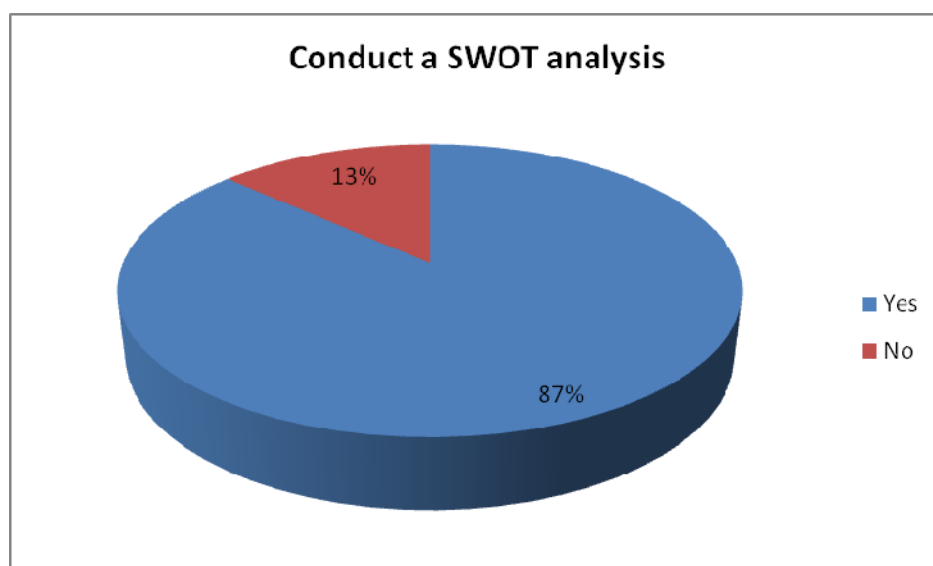
- employees undergo training and performance management practices
- organisational objectives are communicated from senior management to lower levels
- customer satisfaction surveys were administered
- long term planning is maintained
- quality control to ensure that products and services are of consistent quality which lead to customer satisfaction
- monthly meetings to analyse trends and implement strategies to adapt to those trends
- employees' commitment to training and team building

- conducting a SWOT analysis
- strategies based on a five year plan which involves senior management and middle management
- ISO 9001:2000 procedures and policies were introduced

These practices are implemented to administer strategic management procedures.

#### 4.4.2 Question 2 – Has the organisation conducted a SWOT analysis recently?

The central aim of strategic management is to help organisations adapt and respond to environmental changes. This question was designed to establish whether organisations conducted a SWOT analysis.



*Figure 16 – Organisations conducting a SWOT analysis*

87% of the organisations conducted a SWOT analysis in 2008 and 13% indicated that they did not conduct a SWOT analysis because it was difficult to adjust their strategic plans every time there is a change in the external environment. This was also in accordance with claims made by Hill and Jones (2007:132-134).

Since there is a large percentage of organisations that conducted a SWOT analysis, it can be inferred that a SWOT analysis is beneficial for the survival of the organisation in an increasingly changing environment. Morrison (1992:2) expresses the point of view that some organisations use a SWOT analysis to scan the environment in which they operate to understand the changes that may occur and develop strategies to improve their current position in the market.

#### 4.4.3 Question 3 – Is the application of a SWOT analysis process useful to the effective operation of the organisation.

Based on the results in the question above, the organisations were asked to rate the importance of a SWOT analysis to the effectiveness of the organisation.

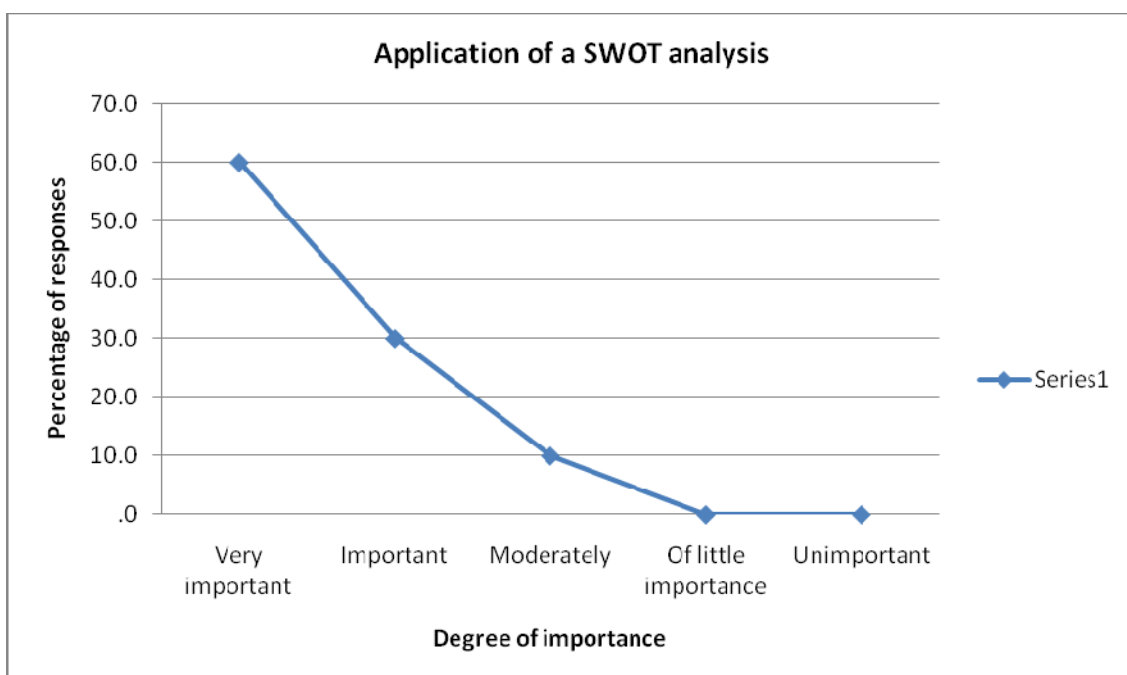


Figure 17 – Organisations that apply a SWOT analysis

The results in Figure 17 illustrate that 60% of the organisations claimed that the application of a SWOT analysis is very important in a rapidly changing environment. The remaining 40% did not think about the importance of conducting a SWOT analysis as they considered it as a very time consuming effort.

#### **4.5 Section E – Identify the synergy between Quality Practices and Strategic Management**

This section consists of contingency and filter type questions.

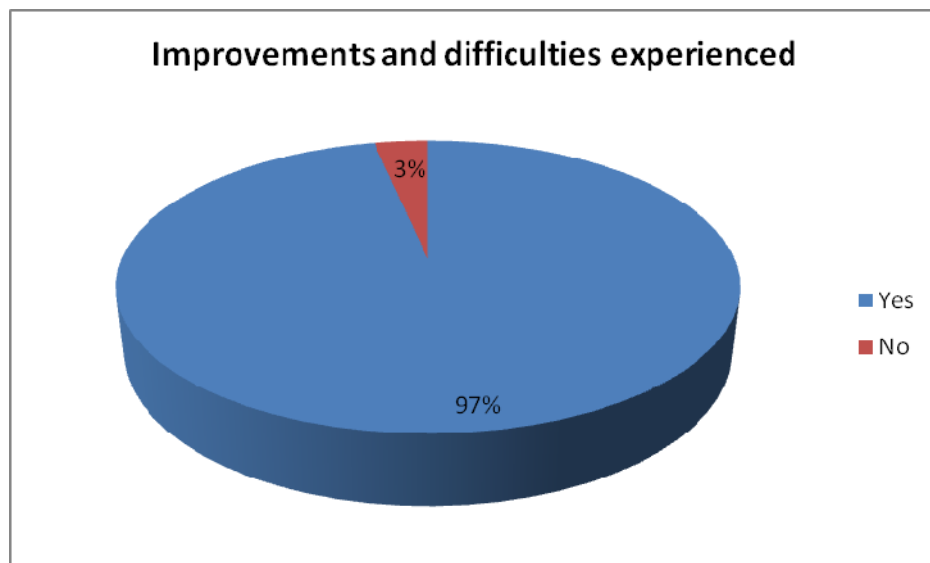
##### **4.5.1 Question 1 – Does the organisation integrate/incorporate any quality practices in its strategic planning process?**

This question was intended to establish the extent to which organisations integrate quality practices in their strategic planning process.



*Figure 18 – The integration of quality practices in strategic management processes*

The results in Figure 18 show that 100% of the organisations integrate quality practice in their strategic planning process. These tools are highlighted in Section 4.5.2.



*Figure 19 – The improvements and difficulties experienced by the organisations*

It is evident from the results in Figure 19 that 97% of the organisations have experienced some form of improvement through this integration.

The following improvements were documented:

- a cultural change in the organisations that is, quality is built into every operational process.
- greater customer satisfaction
- customer service and quality levels have improved
- has increased the organisation's competitive advantage
- productivity increased and defects were eliminated
- the training of employees has improved the culture of quality in the organisation

Based on the results above, 3% of the organisations have experienced difficulties and problems.

The following difficulties were highlighted:

- lack of employee involvement because they do not want to adapt to change
- the older staff do not want to adapt to change because they are comfortable in their routine processes and procedures
- the extensive cost involved with integrating processes and the cost of training employees who are willing to undergo such a change.
- senior management is in charge of the integration and have not effectively communicated this to other levels in the organisation
- the cost of new technology is very high

It can be inferred that organisations who integrate quality practices and strategic management processes have experienced improvements in their employee morale, achieved high customer satisfaction, minimised defects and have increased productivity which eventually led to increased sales and greater profits. As a result, they have maintained a greater market share and have established themselves as market leaders in the Printing and Packaging Industry.

#### **4.5.2 Question 2 – Does the organisation implement any of the following practices?**

The question was used to identify the various types of quality practices that were implemented by the organisations in this industry.

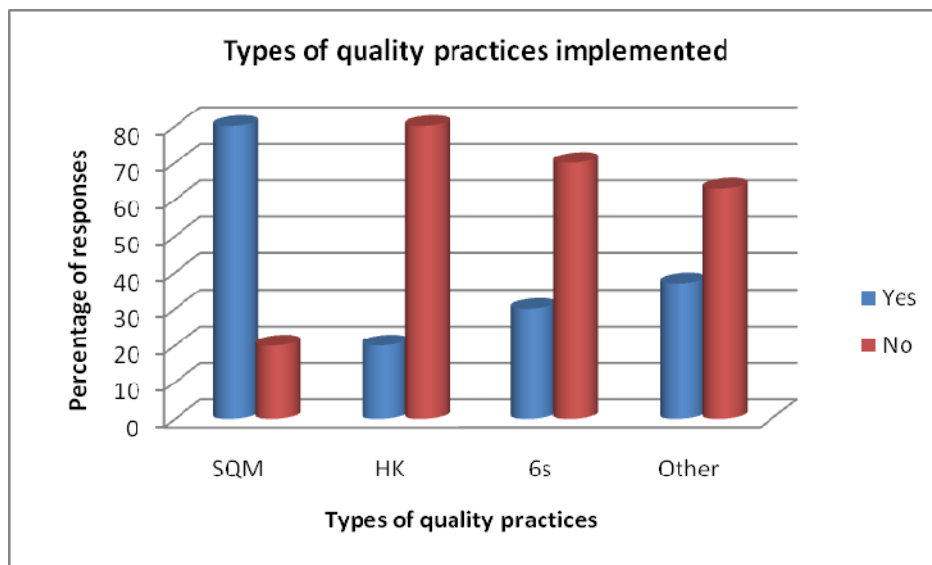


Figure 20 – The types of quality practices that were implemented in organisations

The results from Figure 20 illustrate that 80% of the organisations implement SQM, 20% implemented Hoshin Kanri, 30% implement the Six Sigma approach and 37% implement other practices that have improved their strategic plans. It is evident that a large percentage of the organisations implement SQM, which has been identified by Brown (2005:209-222) as the origin of integrating quality practices in strategic planning.

Many of the organisations in this study have used a combination of these practices to accomplish definitive quality in their strategic management processes.

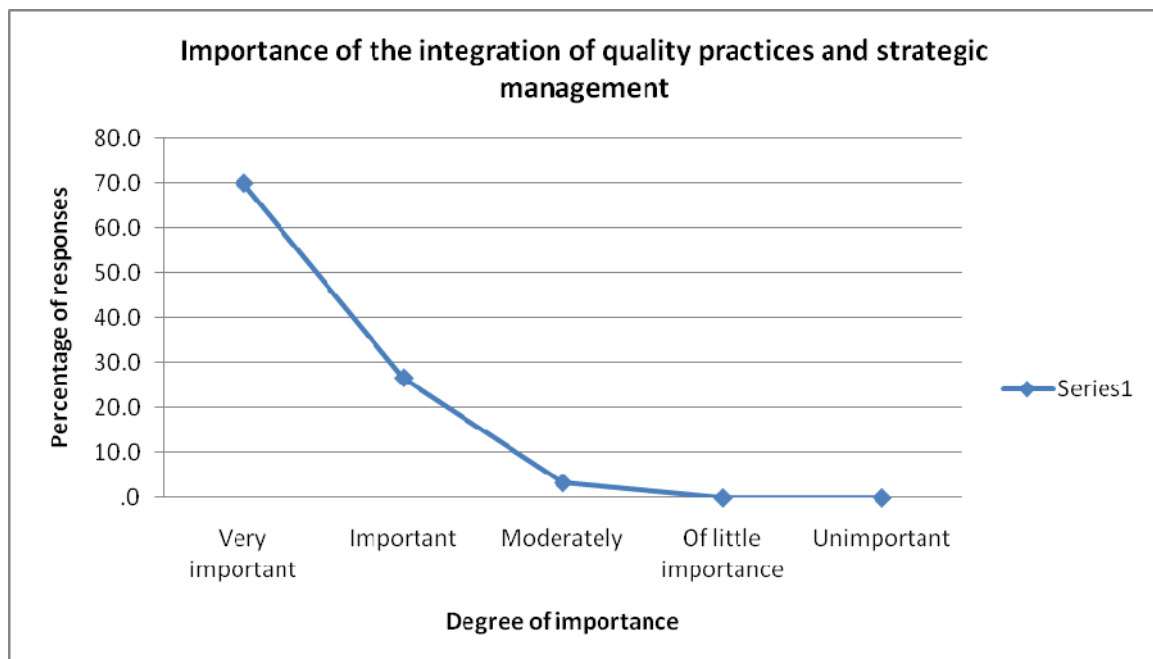
#### 4.6 Section F – Integrating tools and techniques

This section presents responses obtained from the Likert Scale, contingency and filters type questions.

##### 4.6.1 Question 1 – The importance of integrating quality practices and strategic management.

This question was developed to understand the importance of such integration to the organisations in the Printing and Packaging Industry.



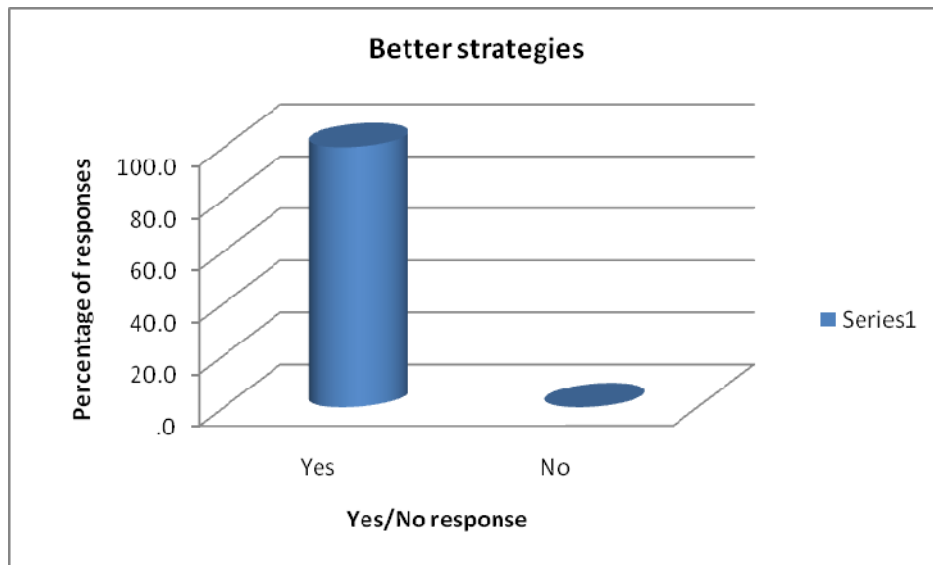


*Figure 21 – The importance of the integration of quality practices and strategic management*

The results from Figure 21 illustrate that there is a high degree of importance (70%) between quality practices and strategic management. According to Lakhali, Pasim and Limam (2006:625-646) the integration of quality practices and strategic management provides a synergistic combination that is far more powerful than either of them operated separately. Defoe and Janssen (2001:406) support Lakhali, Pasim and Limam (2006:625-646) and expresses the contention that the integration of quality practices in the strategic management process becomes a part of a foundation that is essential in supporting the management of quality in an organisation. This can be further supported from the results documented in Section E and Section F.

#### **4.6.2 Question 2 - The principles of quality practices can help improve an organisation's strategic planning process and therefore lead to better strategies. Do you agree with this statement?**

This question was considered to determine the attitude and opinions of senior management to the integration of quality practices in strategic management.



*Figure 22 – The integration leads to better strategies*

From Figure 22 all 30 organisations have expressed positive views that the integration would lead to better strategies and improvement in the strategic planning processes, which will in turn lead to high quality in every operation and department in the organisation.

Senior management has acknowledged the following reasons and supports the integration of quality practices in strategic management:

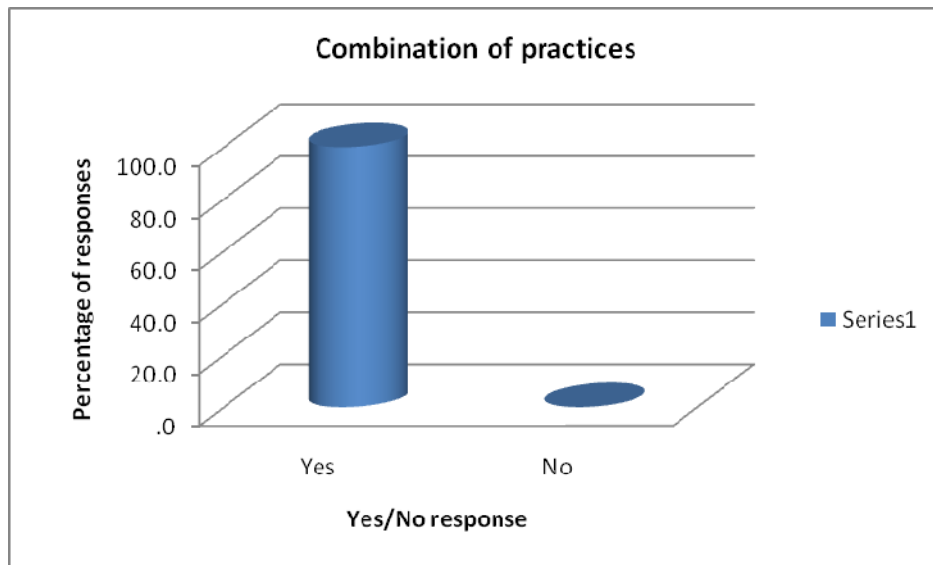
- the integration can lead to better strategic planning and continuous improvement
- the organisation can achieve greater customer satisfaction and improved profitability
- the correct implementation of this integration could increase productivity and improve operations
- it can improve communication from senior management and other levels in the organisation

- the organisation can supply products and services of superior quality that is consistent with customer needs
- it can enhance relationships with customers
- the integration has allowed organisations to compete in global markets and become world class manufacturers
- has increased market share, reducing operational costs, reducing defects and scrap
- would enhance the progression of the organisation

Global trends of markets and increased competition have led to focusing on the satisfaction of customers' needs as a means of obtaining a competitive advantage and ensuring the survival of an organisation. One of the major strategic changes that has occurred in recent years in many organisations is their striving to satisfy customers' needs with the emphasis on quality and the adoption of quality practices in strategic management. This can be inferred from the authors Oakland (2003:56), Svensson (2006:22-29), Leonard and McAdam (2004:254-266), Mehra, Hoffman and Sirias (2001:855-876), Zairi (2006:149-149), Allen and Kilmann (2001:110-131), Terziovski and Samson (1999-393:409), Aravindan, Devadasan and Selladurai (2001-80-94), Friday-Stroud and Sutterfield (2007:562) DeFoe and Janssen (2001:4-6), Sharma and Gadenne (2001:433-445) and Chin, Tummala and Tang (2002:213-218).

#### **4.6.3 Question 3 – Would it be useful to implement a combination of quality practices in strategic planning?**

This question was designed to determine whether the implementation of a combination of quality practices would be conducive to the strategic planning process.



*Figure 23 – The use of a combination of quality practices*

The results in Figure 23 show that all the organisations are in agreement that there should be a combination of quality practices incorporated in the strategic management process; the benefits of this integration are identified in Section E.

#### **4.7 CHAPTER SUMMARY**

The results presented above have identified the importance and effectiveness of integrating quality practices in the strategic planning process. The integration has encouraged most of the organisations in this industry to achieve great success and leadership in an immensely competitive industry. In the next chapter, the conclusions of the study will be construed and suitable recommendations will be suggested.

## Chapter Five

### Conclusions and Recommendations

## **5.1 INTRODUCTION**

This chapter will present the conclusions obtained from the research. It will also provide suitable recommendations for organisations, in order for them to improve their current practices.

## **5.2 CONCLUSIONS OF THE STUDY**

In a fast moving, rapidly changing environment, an organisation continues to set goals and objectives and formulate strategies to achieve them. However, due to the constantly changing industry and competition, further action needs to be implemented. Therefore it has been identified that there is a need for an intervention like the integration of quality practices into the strategic planning process.

This integration is a rigorous and evolutionary process. Several political and economic changes have occurred in the world during the past few years and have revolutionised every sector of the global economy including the manufacturing sector. At the same time, the manufacturing industries become more quality conscious. This was mainly due to a demand for overall higher quality of products, as well as services, by customers. The Printing and Packaging Industry which formed the basis of this study has also experienced these changes.

In order to conduct this research, a set of quality and strategic management practices were identified, reviewed and presented in Chapter 2. An empirical study was then conducted of 30 organisations in the Printing and Packaging Industry to determine whether they adopted quality practices in the strategic management process. A questionnaire was used to determine if organisations adhered to quality practices and strategic practices as independent tools or whether they in fact integrated them.

The respondents indicated the following benefits from adhering to the integration of quality practices in strategic management:

- senior management's commitment and support to the integration
- a quality culture was created
- more emphasis on employee training
- greater employee participation
- increased customer focus and customer satisfaction
- quality systems and strategic processes improved
- senior management's decision to fully commit to quality practices
- the inclusion of quality practices and principles in the mission statement
- management must actively communicate a quality commitment to employees
- a programme for continuous reduction in defects
- a plan to reduce scrap drastically
- increasing the organisation's direct relationship with customers
- using customer requirements as the foundation for quality

It has been established from the results obtained in this study that there is a great need and importance for focusing on quality practices during the organisation's strategic management process. Based on the evidence from the main study, there is a relationship that exists between quality practices and the strategic management process. This relationship has resulted in an organisation that is more attentive to quality procedures and customer demands. The results from the main study indicate that most of the organisations in this study have succeeded in this integration and have achieved extensive improvements in their operational performance and quality of their products. The implementation and integration of quality practices and strategic management has made the strategic management process much easier to apply because strategies are formulated in accordance to customer needs.

This study is a unique effort to assess the current status of quality management practices in the Printing and Packaging Industry. The results of this study showed that the majority of the organisations in this industry are well aware of the modern quality

management concepts and philosophies. It reconfirms the importance of quality related issues. These organisations also believed that they are accomplishing excellent standards in providing high quality products to their customers.

Although initial studies suggested that relatively few organisations have adopted this integration, the analysis of results obtained from the questionnaires in the main study, indicates that organisations are placing more emphasis on quality in the strategic planning process. It was established that senior management are increasingly taking an active role in providing information for the integration of quality practices in strategic management processes. This has led to better strategic decision making and successful strategic plans.

Therefore after observing the significant contributions of quality practices on strategic management processes, the integration can be defined as a comprehensive framework that enhances customer satisfaction, greater sales volume, more employee involvement, continuous improvement, an increased market share and a competitive advantage. As organisations strive to compete in a progressively changing environment, it is evident that strategic goals have to change in accordance to the environment. Consequently, it is advantageous to integrate quality practices with strategic management processes. It has been identified that this integration includes aligning organisational objectives to achieve higher quality, the involvement of all employees and commitment of senior management and leads to enhanced formulation and implementation of strategies. This resulted in improved performance of the organisation and a superior competitive position.

The results also indicated that a few of the organisations lack the ability to implement successful strategic processes. Hence, there is a failure of many strategic plans. It has been acknowledged that some organisations have lost customers and sales due to the lack of proper strategic planning. This problem, however, has been remedied with the integration of quality practices in the strategic planning phase.



The integration of quality practices and strategic planning helped senior management mould their organisation's future and manage change by focusing on an ideal goal of where the organisation could be in 10 to 20 years. Objectives and action plans need to be developed to achieve this goal. In conclusion the study has established an understanding of the importance and use of quality practices as a key element of an organisation's strategic management process.

### **5.3 RECOMMENDATIONS**

The organisations which are not susceptible to this integration should perhaps attempt benchmarking and study the practices adopted by the leading organisations in the Printing and Packaging sector. The following recommendations should be considered by those organisations that do not execute this integration:

#### **5.3.1 The organisation can achieve continuous improvement in the form of improved operational and organisational processes.**

This can be accomplished by employing quality practices such as Strategic Quality Management (SQM) and Hoshin Kanri. According to Aravindan, Devadasan and Selladurai (2001:80-94) there are three phases of (SQM) which can lead to continuous improvement.

These three phases include quality concepts that are integrated into: the goals of the organisation; in the formulation of policies and actions required for managing change and the deployment of the integration of quality practices in strategic management.

Hoshin Kanri, however, is a type of quality integrated strategic planning that orchestrates continuous improvement and breakthroughs. It selects the areas that need improvement, makes certain the right people get involved and that the improvement is implemented. This can be gathered from Tennant and

Roberts (2000:77-90). Therefore managers planning for the future success of their organisation should consider this integration.

### **5.3.2 Gaining a competitive advantage through increased productivity, a greater market share, higher customer satisfaction and loyalty.**

This can be obtained by employing a quality practice like Total Quality Management (TQM). This practice has assisted organisations in gaining a competitive advantage by making quality the central focus of the organisation. This was evident from the authors Leonard and McAdam (2004:254-266), Oakland (2003:56) and Svensson (2006:22-29). It is apparent that organisations should consider integrating TQM within the strategic management process.

### **5.3.3 Productivity increased and defects eliminated.**

This can be achieved through the implementation of the Six Sigma approach which is a quality practice that helps eliminate or reduce defects. According to Harrold (1999:37) the Six Sigma approach is a process of achieving zero defects or getting as close to zero defects as possible.

Based on the results from the pilot and main study, it is apparent that most organisations pursue the integration of quality practices in strategic management with great success. This success is evident in their organisation's continuous improvement processes, greater customer satisfaction, sustainability in the market and increased profitability and sales.

# Bibliography

## Bibliography

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1. Allen, RS. and Kilmann, RH. 2001. The role of the reward system for total quality management based strategy. *Journal of Organisational Change Management* [online], **14**(2) 110-131. Available at: <http://emeraldinsight.com> [Accessed 13 March 2008].
2. Aravindan, P., Devadasan, SR. and Selladurai, V. 2001. A focused system model for strategic quality management. *International Journal of Quality and Reliability Management* [online], **13**(8) 79-96. Available at: <http://emeraldinsight.com> [Accessed 28 June 2008].
3. Bless, C. 2006. *Fundamentals of social research methods: an African perspective*. 3<sup>rd</sup> ed. New York: JUTA. pp 45 and pp 87.
4. Bossink, BGA. 2002. Innovative quality management practices in the Dutch construction industry. *International Journal of Quality and Reliability Management* [online], **19**(2) 170-186. Available at: <http://emeraldinsight.com> [Accessed 21 June 2007].
5. Brown, P. 2005. The evolving role of strategic management development. *Journal of Management Development* [online], **24**(3) 209-222. Available at: <http://www.journals.co.za> [Accessed 21 June 2007].
6. Burgess, TF. 2001. The general introduction to the design of questionnaires for survey research. Leeds University: United Kingdom. pp 2, 7, 9, 15.
7. Calcagno, M. 1996. The Evolution of the Competitive Advantage Concept in Strategic management. *Strategic Management Journal* [online], **17**(1) 99-112. Available at: <http://emeraldinsight.com> [Accessed 23 June 2008].
8. Calingo, LM. 2000. The evolution of Strategic Quality Management. *International Journal of Quality and Reliability Management* [online], **13**(9) 19-37. Available at: <http://emeraldinsight.com> [Accessed 31 March 2007].

## Bibliography

---

9. Carpenter, MA. and Sanders, WG. 2007. *Strategic Management, A Dynamic Perspective*. 4<sup>th</sup> ed. Massachusetts: Pearson Education Incorporated United States. pp 7.
10. Chin, KS., Tummala, VM. and Chan, KM. 2002. Quality management practices based on Hong Kong manufacturing industries. *Technovation* [online], **22**(4) 213-230. Available at: <http://www.journals.co.za> [Accessed 19 February 2008].
11. Chin, KS. and Pun, KF. 2002. A proposed framework for implementing TQM in Chinese organisations. *International Journal of Quality and Reliability Management* [online], **19**(3) 272-294. Available at: <http://emeraldinsight.com> [Accessed 21 January 2008].
12. Cleveland, J. 2006. Going Global - A framework for strategic development. *Automotive Design and Production* [online], **118**(11) 16. Available at: <http://proquest.umi.com> [Accessed 28 January 2007].
13. Crowe, TJ. and Cheng, CC. 1996. Using Quality Function Deployment in manufacturing strategic planning. *International Journal of Operations and Production Management* [online], **16**(4) 35-48. Available at: <http://emeraldinsight.com> [Accessed 22 June 2008].
14. David, FR. 1997. *Concepts of Strategic Management*. 6<sup>th</sup> ed. London: Prentice Hall. pp 105-111.
15. DeFoe, JA. and Janssen, A. 2001. Strategic Deployment: A key to profitable growth. *Measuring Business Excellence*, **5**(2)4-6. Available at: <http://www.journals.co.za> [Accessed 21 June 2008].
16. Denzin, A. 2005. *The Sage handbook of Qualitative research*. 3<sup>rd</sup> ed. London: SAGE Publications. pp 35.

## Bibliography

---

17. Evans, JR. 2000. *Total Quality: Management, Organisation and Strategy*. 4<sup>th</sup> ed. Cincinnati: University of Cincinnati. pp 31-36.
18. Friday-Stroud, SS. and Sutterfield, JS. 2007. A conceptual framework for integrating six-sigma and strategic management methodologies to quantify decision making. *The TQM Magazine* [online], **19**(6) 561-571. Available at: <http://emeraldinsight.com> [Accessed 28 March 2008].
19. Gale, D. 2006. Toyota delays models due to quality problems. *Industry News Automotive* [online], January: 1-11. Available at: <http://proquest.umi.com> [Accessed 13 March 2007].
20. Ginter, PM. and White, DD. 1992. Social learning approach to strategic management: Toward a theoretical foundation. *Academy of Management Review* [online], **7**(2) 253-261. Available at: <http://www.journals.co.za> [Accessed 28 July 2008].
21. Goddard, W. and Melville, S. 1996. *Research Methodology*. 2<sup>nd</sup> ed. New York: JUTA.
22. Godfrey, AB. 2006. Quality management: Integrating quality and strategic planning. *Quality Digest* [online], **6**(4) 24-38. Available at: <http://qualitydigest.com> [Accessed 22 March 2008].
23. Govender, J. 2008. Interviewed by N. Sukdeo. Mondipak boardroom, Pinetown, 23 September 12h30.
24. Grant, RM. 2005. *Contemporary Strategy Analysis*. 5<sup>th</sup> ed. Cambridge: Blackwell Publishers. pp 1-11.
25. Hahn, GJ., Doganaksoy, N. and Hoerl, R. 2002. *The Evolution of Six Sigma*. *Quality Engineering* [online], **9**(4) 2-4. Available at: <http://www.qualitydigest.com> [Accessed 15 May 2008].

## Bibliography

---

26. Harrold, D. 1999. Designing for Six Sigma capability [online]. Available from: <http://www.controleng.com/archives/1999/ct/0101.99/01a103.htm> [Accessed 11 March 2008].
27. Hasmi, K. 2002. *Introduction and Implementation of Total Quality Management*. 4<sup>th</sup> ed. New York: Wiley. pp 1-4.
28. Hill, CW. and Jones, GR. 2007. *Strategic Management: An Integrated Approach*. 7<sup>th</sup> ed. Boston: Houghton Publishing. pp 7-8 and pp 132-134.
29. Holland, J. and Campbell, J. 2005. *Methods in development research. Combining qualitative and quantitative approaches*. 6<sup>th</sup> ed. Bangladesh: ITDG Publishing. pp 21-26.
30. Ittner, CD. and Larcker, DF. 1997. Quality strategy, strategic control systems and organisational performance. *Accounting, Organisation and Society* [online], **22**(4) 293-314. Available at: <http://emeraldinsight.com> [Accessed 18 June 2008].
31. Jaideep, L. 1999. *The enigma of Six Sigma* [online], Available at: <http://www.india-today.com/btoday/19990922/cover.html> [Accessed 22 March 2008].
32. Juran, J. 1989. *Quality Control Handbook*. New York: McGraw Hill. pp 3.
33. Karrupusami, G. and Gandhinathan, R. 2007. Sustainable development of TQM through Deming's PDCA cycle. *The International Journal for Quality and Standards* [online], **21**(2) 7. Available from: <http://www.bsieducation.org/ijqs> [Accessed 19 March 2008].
34. Khan, H. 2008. Interviewed by N.Sukdeo. Tetra Pack offices, Pinetown, 25 September 13h00.

## Bibliography

---

35. Kelemen, M. 2003. *Managing Quality: Managerial and Critical perspectives*. 3<sup>rd</sup> ed. New York: SAGE Publications. pp 41-45.
36. Kenyon, DA. 1997. Strategic planning with Hoshin process [online]. Available at: <http://www.qualitydigest.com> [Accessed 24 March 2007].
37. Kothari, CR. 1985. *Research Methodology: methods and techniques*. 2<sup>nd</sup> ed. New Delhi: Wiley Eastern Limited . pp 120.
38. Kumar, R. 2005. *Research Methodology: step-by-step guide for beginners*. 2<sup>nd</sup> ed. London: SAGE Publishing. pp 22 and pp 126.
39. Lakhal, L., Pasim, F. and Limam, M. 2006. Quality management practices and their impact on performance. *International Journal of Quality and Reliability Management* [online], **23**(6) 625-646. Available at: <http://emeraldinsight.com> [Accessed 12 June 2007].
40. Leedy, PD. and Ormrod, JE. 2001. *Practical research: planning and design*. 7<sup>th</sup> ed. Denver: Prentice Hall. pp 32-33 and pp 121.
41. Lee, I. 2007. Strategic Management Model case. *Chrysler Corporation* [online], February: 7-24. Available at: <http://www.chryslercorp.com> [Accessed 11 March 2007].
42. Leonard, P. and McAdam, C. 2004. *Strategic Quality Management* 3<sup>rd</sup> ed. Canada: Addison Wesley Publishing. pp 507-522.
43. Lumpkin, GT. and Taylor, LM. 2004. *Strategic Management concepts and practices*. 5<sup>th</sup> ed. England: McGraw Hill. pp 8-12.
44. Mackey, A. and Gass, SM. 2005. *Second Language Research: Methodology and Design*. Linden: LEA Publishers. pp 21 and pp 107.



## Bibliography

---

45. Madu, CN., Aheto, J., Kuei, CH. and Winokur, D. 1996. Adoption of Strategic Quality Management philosophies. *International Journal of Quality and Reliability Management* [online], **13**(3) 57-72. Available at: <http://emeraldinsight.com> [Accessed 5 August 2007].
46. Maree, K. 2007. *First steps in research*. 1<sup>st</sup> ed. Pretoria: Van Schaik. pp 83, 87, 89, 163, 176, 216.
47. McCell, S. 2000. Gaining competitive advantage through Strategic Management Development. *Journal of Management Development* [online], **13**(5) 4-13. Available at: <http://emeraldinsight.com> [Accessed 30 March 2008].
48. Mehra, S., Hoffman, JM. and Sirias, D. 2001. TQM as a management strategy for the next millennia. *International Journal of Operations and Production Management* [online], **21**(6) 855-876. Available at: <http://emeraldinsight.com> [Accessed 23 June 2008].
49. Mikel, H. 2000. *Six Sigma: The breakthrough management strategy revolutionising the world's top corporation*. New York: Random House Publishers. pp 46.
50. Mintzberg, H. 2000. *The Rise and Fall of strategic planning*. 4<sup>th</sup> ed. New York: Free Press. pp 24.
51. Morrison, JC. 1992. Environmental Scanning. *The Association for Research* [online]. Available at: <http://www.sciencedirect.com> [Accessed 5 August 2008].
52. Mouton, J. 2001. *How to succeed in your Masters and Doctoral Studies. A South African guide and handbook*. 1<sup>st</sup> ed. South Africa: Van Schaik Publishing. pp 101.
53. Neuman, LW. 1997. *Social research: qualitative and quantitative approaches*. 3<sup>rd</sup> ed. Boston: Allyn and Bacon Publishing. pp 204-220 and pp 240.

## Bibliography

---

54. Ngubane, S. 2008. Interviewed by N.Sukdeo. Shave and Gibson-Packaging and security printing, Jacobs, 26 September 10h30.
55. Oakland, JS. 2003. *TQM: Text and Cases*. 3<sup>rd</sup> ed. Oxford: Butterworth Heinemann. pp 56.
56. Oppenheim, AN. 2003. Questionnaire design, interviewing and attitude measurement. Great Britain: Biddles Ltd. pp 195.
57. Owen, C. 2008. Interviewed by N.Sukdeo. New Era Packaging, Phoenix Industrial Park, 29 September 13h00.
58. Parast, MM. and Digman, LA. 2007. A framework for quality management practices. *Management Decisions* [online], **45**(4) 802-818. Available at: <http://emeraldinsight.com> [Accessed 17 June 2008].
59. Raghunathan, TS., Rao, SS. and Solis, LE. 1997. A comparative study of quality practices. *Industrial Management and Data Systems* [online], **97**(5) 192-200. Available at: <http://www.journals.co.za> [Accessed 6 August 2007].
60. Reddy, S. 2008. Interviewed by N.Sukdeo. Nampak, Jacobs, 30 September 12h30.
61. Robinson, R. 2005. *The advantages and disadvantages of Strategic Management* [online]. Available from: <http://charityvillage.com> [Accessed 22 June 2008].
62. Rossman, GB. and Rallis, FS. 2003. *Learning in the field. An introduction to qualitative research*. 2<sup>nd</sup> ed. London: SAGE. pp 59.
63. Sarantakos, S. 1998. *Social Research*. 2<sup>nd</sup> ed. Cape Town: MacMillan. pp 222 and pp 223-245.

## Bibliography

---

64. Sharma, B. and Gadenne, D. 2001. An investigation of the perceived importance and effectiveness of quality management approaches. *The TQM Magazine* [online], **13**(6) 433-445. Available at: <http://www.journals.co.za> [Accessed 8 August 2008].
65. Stamatis, DH. 2000. Who needs Six sigma Anyway? [online]. Available at: <http://qualitydigest.com> [Accessed 22 June 2007].
66. Stevenson, WJ. 2005. *Operation Management*. 8<sup>th</sup> ed. United States: McGraw Hill. pp 398-401.
67. Strickland, AJ., Thompson, AA. and Gamble, J. 2001. *Cases in Strategic Management*. 12 ed. New York: McGraw Hill. pp 26.
68. Svensson, G. 2006. Sustainable quality management: a strategic perspective. *The TQM Magazine* [online], **18**(1) 22-29. Available at: <http://www.journals.co.za> [Accessed 28 June 2007].
69. Tabije, I. 2007. *Strategic Management* [online]. Available at: <http://ezinearticles.com> [Accessed 12 April 2008].
70. Tan, KC., Kannan, VR., Handfield, RB. and Ghosh, S. 2000. Quality, manufacturing strategy and global competition. *Benchmarking: An International Journal* [online], **7**(3) 174-182. Available at: <http://emeraldinsight.com> [Accessed 24 April 2008].
71. Tang, V. and Bauer, R. 1995. *Competitive Dominance: Beyond strategic advantage and TQM*. New York: Nostrand Reinhold. pp 5-14.
72. Tennant, C. and Roberts, PAB. 2000. Hoshin Kanri: A technique for Strategic Quality Management. *Quality Assurance* [online], **8**(2) 77-90. Available at: <http://emeraldinsight.com> [Accessed 22 July 2008].

## Bibliography

---

73. Terziovski, M. and Samson, HE. 1999. The relationship between total quality management practices and organisational performance. *Journal of Operations Management* [online], **17**(4) 393-409. Available at: <http://emeraldinsight.com> [Accessed 4 July 2008].
74. Trochim, WK. 2006. *Research design: Social Research Methods*. 1<sup>st</sup> ed. United Kingdom, Leeds: Leeds University. pp 27,30, 32, 52.
75. Tummala, VM. and Tang, CL. 1996. Strategic quality management, Malcolm Baldrige and European quality awards and ISO 9000 certification. *Journal of Quality and Reliability* [online], **13**(4) 8-38. Available at: <http://emeraldinsight.com> [Accessed 23 March 2008].
76. Van Eeden, S. and Venter, D. 2003. A comparative study of selected problems encountered by small businesses. *Management Dynamics* [online], **12**(3) 13-19. Available at: <http://www.journals.co.za> [Accessed 29 July 2008].
77. Venter, P. 2006. *Strategic Management: winning in the South African workplace*. Cape Town: Oxford University Press South Africa. pp 28.
78. Vinzant, JC. and Vinzant, DH. 1999. Strategic management spins-off of the Deming approach. *Journal of Management History* [online], **5**(8) 516-531. Available at: <http://www.journals.co.za> [Accessed 29 July 2008].
79. White, B. 2000. *Dissertation skills: for business and management sciences*. New York: Continuum. pp 20, 25, 55, 60.
80. Zairi, M. 2006. Hoshin Planning: Strategy of a different kind. *Handbook of Business Strategy* [online], **7**(1) 149-159. Available at: <http://proquest.umi.com> [Accessed 19 March 2008].
81. Zairi, M. and Erskine, A. 2004. Excellence is born out of effective strategic deployment: The impact of Hoshin Planning. *International Journal of Applied*

## Bibliography

---

*Strategic Management* [online], **2**(2) 40-53. Available at: <http://emeraldinsight.com> [Accessed 21 July 2008].

82. Zhao, X., Yeung, CL. and Lee, TS. 2004. Quality management and organisational context in Japanese industries. *Journal of Operations Management* [online], **22**(6) 575-587. Available at: <http://emeraldinsight.com> [Accessed 26 June 2008].

Appendix A

Cover Letter

17 September 2008

Sir/Madam

Research Questionnaire

I am currently an M.Tech: Quality student at the Durban University of Technology and I am engaging in a study investigating "Quality practices in strategic management processes" and the challenges they impose on organisations.

I would appreciate if you would kindly complete the following questionnaire. The questionnaire would take approximately twenty minutes to complete. You have the opportunity to request a summary of the results of the study, if so desired.

Confidentiality of the information will be respected.

Thank you for your co-operation.

Yours sincerely

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Nita Sukdeo

Tel: 031 373 5301

Fax: 086 674 0294

Email: nitai@dut.ac.za

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I consent to participate in this study.

Signature of participant

Date

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## Appendix B

### Pilot Questionnaire



## QUESTIONNAIRE

### The importance of integrating quality practices in strategic management

#### SECTION A: The importance of Quality Practices

1. A growing number of organisations use quality practices as a foundation for generating a competitive advantage and improving organisational performance.

The implementation of quality practices to your organisation is

	1	2	3	4	5
Very important					
Important					
Moderately					
Of little importance					
unimportant					

2. Your organisation implements quality management processes.

Yes       No

3. The success of the organisation after the implementation of quality practices is

	1	2	3	4	5
Very good					
Good					
Barely acceptable					
Poor					
Very poor					

4. The organisation has succeeded in continuous improvement after the implementation of quality practices.

Yes                       No

If Yes, how did the organisation experience this improvement?

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**SECTION B:      The use of Quality Practices in organisations**

1. Your organisation is ISO 9000/2000 compliant.

Yes                       No

If No, what other management system certification does the organisation implement?

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2. Does your organisation apply Total Quality Management principles?

Yes                       No

If No, what other quality practice(s) does your organisation apply?

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**SECTION C: The importance of Strategic Management**

1. Strategic management provides a means for organisations to coordinate their functions and resources to achieve prescribed strategies, according to an environment in which the organisation may find itself. In this way the organisation can gain a competitive advantage.

The organisation implements Strategic Management principles.

Yes       No

2. The importance of strategic management to your organisation is

	1	2	3	4	5
Very important					
Important					
Moderately					
Of little importance					
unimportant					

3. For strategic management to be a success, organisations must not fail to follow their strategic plan.

Your organisation adheres to such strategic plans.

Yes       No

4. How does your organisation administer corrective action when strategic initiatives failed?

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**SECTION D: Current practices of Strategic Management**

1. What are the current practices of your organisation during the strategic management process?

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2. The central aim of strategic management is to help organisations adapt and respond to environmental changes.

Has your organisation conducted a Strengths, Weaknesses, Opportunity and Threats (SWOT) analysis recently?

Yes       No

3. The application of a SWOT analysis process to the effective operation of your organisation is

	1	2	3	4	5
Very important					
Important					
Moderately					
Of little importance					
Unimportant					

**SECTION E: Identify the synergy between Quality Practices and**

**Strategic Management**

1. Does your organisation integrate/incorporate any quality practices in its strategic planning process?

Yes       No

If Yes, what improvements or difficulties has the organisation experienced due to this integration?

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**SECTION F: Integrating tools and techniques**

1. Quality management is a potentially unified organisational strategy and many of the quality practices used in organisations today, are strongly correlated with strategic management.

There is evidence which suggests that quality practices can be integrated with strategic management.

The integration of quality practices and strategic management is

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Very important					
Important					
Moderately					
Of little importance					
unimportant					

2. Quality initiatives have gained increased importance in strategic management and have become an integral part of the overall strategic plan. The principles of quality practices can help improve an organisation's strategic planning process and therefore lead to better strategies.

Do you agree with these statements?

Yes       No

3. Do you think it would be useful to implement a combination of quality practices in the strategic planning process?

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**Thank you for your cooperation.**

## Appendix C

### Main Questionnaire

## QUESTIONNAIRE

### The importance of integrating quality practices in strategic management

#### SECTION A: The importance of Quality Practices

1. A growing number of organisations use quality practices as a foundation for generating a competitive advantage and improving organisational performance.

The implementation of quality practices to your organisation is

Very important	Important	Moderately	Of little importance	Unimportant
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

*(Tick the appropriate number)*

2. Your organisation implements quality management processes.

Yes       No

3. The success of the organisation after the implementation of quality practices is

Very good	Good	Barely Acceptable	Poor	Very poor
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

5. The organisation has succeeded in continuous improvement after the implementation of quality practices.

Yes       No

If Yes, how did the organisation experience this improvement?

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**SECTION B: The use of Quality Practices in organisations**

1. Your organisation is ISO 9000:2000 compliant.

Yes             No

If No, what other management system certification does the organisation have?

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2. Does your organisation apply Total Quality Management (TQM) principles?

Yes             No

**SECTION C: The importance of Strategic Management**

1. Strategic management provides a means for organisations to coordinate their functions and resources to achieve prescribed strategies, according to an environment in which the organisation may find itself. In this way the organisation can gain a competitive advantage.

The organisation implements Strategic Management principles.

Yes             No

2. The organisation gained a competitive advantage through Strategic Management principles.

Yes             No

If Yes, how did the organisation gain a competitive advantage?

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---

If No, why?

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---

3. The importance of strategic management to your organisation is

Very important	Important	Moderately	Of little importance	Unimportant
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>



4. For strategic management to be a success, organisations must not fail to follow their strategic plan.

Your organisation adheres to such strategic plans.

Yes       No

If No, why?

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5. How does your organisation administer corrective action when strategic initiatives failed?

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#### **SECTION D: Current practices of Strategic Management**

1. What are the current practices of your organisation in relation to the strategic management process?

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---

2. The central aim of strategic management is to help organisations adapt and respond to environmental changes.

Has your organisation conducted a Strengths, Weaknesses, Opportunity and Threats (SWOT) analysis recently?

Yes       No

If No, why?

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---

3. The application of a SWOT analysis process to the effective operation of your organisation is

Very important	Important	Moderately	Of little importance	Unimportant
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

**SECTION E: Identify the synergy between Quality Practices and Strategic Management**

1. Does your organisation integrate/incorporate any quality practices in its strategic planning process?

Yes       No

If Yes, what improvements or difficulties has the organisation experienced due to this integration?

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---

If No, why?

---



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2. Does the organisation implement any of the following practices:

*(Tick the appropriate block/s)*

- Strategic Quality Management
- Hoshin Planning
- Six Sigma
- SWOT Analysis
- Other

**SECTION F: Integrating tools and techniques**

1. Quality management is a potentially unified organisational strategy and many of the quality practices used in organisations today, are strongly correlated with strategic management.

The integration of quality practices and strategic management is

Very important	Important	Moderately	Of little importance	Unimportant
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

2. Quality initiatives have gained increased importance in strategic management and have become an integral part of the overall strategic plan. The principles of quality practices can help improve an organisation’s strategic planning process and therefore lead to better strategies.

Do you agree with these statements?

Yes       No

If Yes, why?

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---

---

If No, why not?

---

---

---

3. Do you think it would be useful to implement a combination of quality practices in the strategic planning process?

Yes       No

**Thank you for your co-operation**

## Appendix D

### Frequency Tables for the Pilot Study

## Section A - The importance of quality practices

### importance of Implementing quality practice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	9	90.0	90.0	90.0
	Important	1	10.0	10.0	100.0
	Moderately		.0	.0	
	Of little importance		.0	.0	
	Unimportant		.0	.0	100.0
	Total	10	100.0	100.0	

### the organisation implements QMP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	90.0	90.0	90.0
	No	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

### success after the implementation of QMP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very good	5	50.0	50.0	50.0
	Good	4	40.0	40.0	90.0
	Barely acceptable	1	10.0	10.0	100.0
	Poor		.0	.0	100.0
	Very poor		.0	.0	100.0
	Total	10	100.0	100.0	

### continuous improvement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	100.0	100.0	100.0
	No		.0	.0	100.0

**Section B - The use of quality practices in organisations**

**ISO compliant**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	60.0	60.0	60.0
	No	4	40.0	40.0	100.0
Total		10	100.0	100.0	

**organisation applies total quality management**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	70.0	70.0	70.0
	No	3	30.0	30.0	100.0
Total		10	100.0	100.0	

## Section C - The importance of strategic management

### organisation implements strategic management principles

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	70.0	70.0	70.0
	No	3	30.0	30.0	100.0
	Total	10	100.0	100.0	

### importance of strategic management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	5	50.0	50.0	50.0
	Important	3	30.0	30.0	80.0
	Moderately	1	10.0	10.0	90.0
	Of little importance	1	10.0	10.0	100.0
	Unimportant		.0	.0	100.0
	Total	10	100.0	100.0	

### organisation adheres to strategic plans

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	80.0	80.0	80.0
	No	2	20.0	20.0	100.0
	Total	10	100.0	100.0	

## Section D - Current practices of strategic management

### conduct SWOT analysis

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	4	40.0	40.0	40.0
No	6	60.0	60.0	100.0
Total	10	100.0	100.0	

### application of a SWOT analysis

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very important	5	50.0	50.0	50.0
Important	1	10.0	10.0	60.0
Moderately	2	20.0	20.0	80.0
Of little importance	2	20.0	20.0	100.0
Unimportant		.0	.0	100.0
Total	10	100.0	100.0	

## Section E - Identify the synergy between quality practices and strategic management

### organisation integrates QMP

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	6	60.0	60.0	60.0
No	4	40.0	40.0	100.0
Total	10	100.0	100.0	



**Section F - Integrating tools and techniques**

**importance of the integration of QMP and strategic management**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	3	30.0	30.0	30.0
	Important	4	40.0	40.0	70.0
	Moderately	3	30.0	30.0	100.0
	Of little importance		.0	.0	100.0
	Unimportant		.0	.0	100.0
	Total	10	100.0	100.0	

**better strategies**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	100.0	100.0	100.0
	No		.0	.0	100.0

## Appendix E

### Frequency Tables for the Main Study

**Section A - The importance of quality practices**

**importance of Implementing quality practice**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	30	100.0	100.0	100.0
	Important		0	0	
	Moderately		0	0	
	Of little importance		0	0	
	Unimportant		0		
	Total	30	100.0	100.0	

**the organisation implements QMP**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	100.0	100.0	100.0
	No		.0	.0	100.0
	Total	10	100.0	100.0	

**success after the implementation of QMP**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very good	20	66.7	66.7	66.7
	Good	10	33.3	33.3	100.0
	Barely acceptable		.0	.0	100.0
	Poor		.0	.0	100.0
	Very poor		.0	.0	100.0
	Total	30	100.0	100.0	

**continuous improvement**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	100.0	100.0	100.0
	No		.0	.0	100.0

## Section B - The use of quality practices in organisations

### ISO compliant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	76.7	76.7	76.7
	No	7	23.3	23.3	100.0
	Total	30	100.0	100.0	

### Other quality management systems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	27	90.0	90.0	90.0
	SABS	2	6.7	6.7	96.7
	Other	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

### organisation applies total quality management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	24	80.0	80.0	80.0
	No	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

**Section C - The importance of strategic management**

**organisation implements strategic management principles**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	100.0	100.0	100.0
	No		.0	.0	100.0
	Total	10	100.0	100.0	

**importance of strategic management**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	25	83.3	83.3	83.3
	Important	4	13.3	13.3	96.7
	Moderately	1	3.3	3.3	100.0
	Of little importance		.0	.0	100.0
	Unimportant		.0	.0	100.0
	Total	30	100.0	100.0	

**competitive advantage**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	28	93.3	93.3	93.3
	No	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

**organisation adheres to strategic plans**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	100.0	100.0	100.0
	No		.0	.0	100.0
	Total	30	100.0	100.0	

## Section D - Current practices of strategic management

### conduct SWOT analysis

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	26	86.7	86.7	86.7
No	4	13.3	13.3	100.0
Total	30	100.0	100.0	

### application of a SWOT analysis

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very important	18	60.0	60.0	60.0
Important	9	30.0	30.0	90.0
Moderately	3	10.0	10.0	100.0
Of little importance		.0	.0	100.0
Unimportant		.0	.0	100.0
Total	30	100.0	100.0	

## Section E - Identify the synergy between quality practices and strategic management

### organisation integrates QMP

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	30	100.0	100.0	100.0
No		.0	.0	100.0
Total	30	100.0	100.0	

**Section E - (continued)**

**no improvement**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	29	96.7	96.7	96.7
	No	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

**Strategic Quality Management (SQM)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	24	80.0	100.0	100.0
Missing	No	6	20.0		
	Total	30	100.0		

**Hoshin Kanri**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	20.0	100.0	100.0
Missing	No	24	80.0		
	Total	30	100.0		

**Six Sigma**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	30.0	100.0	100.0
Missing	No	21	70.0		
	Total	30	100.0		

**Other**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	36.7	100.0	100.0
Missing	No	19	63.3		
	Total	30	100.0		

**Section F - Integrating tools and techniques**

**importance of the integration of QMP and strategic management**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	21	70.0	70.0	70.0
	Important	8	26.7	26.7	96.7
	Moderately	1	3.3	3.3	100.0
	Of little importance		.0	.0	100.0
	Unimportant		.0	.0	100.0
	Total	30	100.0	100.0	

**better strategies**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	100.0	100.0	100.0
	No		.0	.0	100.0

**combination of practices in strategic management**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	100.0	100.0	100.0
	No		.0	.0	100.0



## Appendix F

### Reliability Tests

### Reliability test-Pilot Study

**Case Processing Summary**

		N	%
Cases	Valid	10	100.0
	Excluded <sup>a</sup>		.0
	Total	10	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.838	14

### Reliability test-Main Study

**Case Processing Summary**

		N	%
Cases	Valid	30	100.0
	Excluded <sup>a</sup>		.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.880	16