

The usage of quality management to improve customer satisfaction

A dissertation submitted to the Faculty of Business, Cape Peninsula University of Technology, Cape Town, in partial fulfilment of the requirements for the Degree Magister Technologiae in Business Administration.

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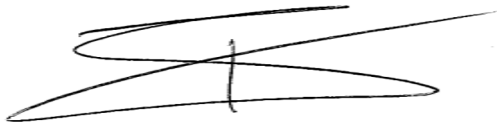
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Cape Town

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Declaration

I Celestin Tsafack Dongmo, here declare that this research project is my own unaided work. This dissertation report has not been, submitted for academic examination toward any qualification. Furthermore, I declare that the CPUT ethical research committee awarded me the consent to carry out this research. The purpose hereof of this research is in partial fulfilment for the degree of Masters in Business Administration (Faculty of Business), CPUT (Cape Peninsula University of Technology).



(Signature)

Signed in Cape Town 15th July 2014

Abstract

The different opinion about customer satisfaction amongst academics and practitioners is useful in gaining broader understanding of the term customer satisfaction. This study anchors its definition of customer satisfaction on three main drivers: (1) product's knowledge such as emotional or cognitive, (2) consumption experience and (3) the response after consumption. Although, this definition departs from market expectation of companies' production and marketing orientation, it certainly forms the base for concerns about the need for product quality that now drives companies' quality and competitive strategy.

This study evaluates the usage of quality management to understand management perception of product quality and its relationship with customers' satisfaction and competitiveness. This evaluation used survey research method to collect empirical data from 110 respondents randomly selected from manufacturing companies based in Cape Town.

The data received were analysed using descriptive statistic, presented in tables and charts to understand and describe respondents' perception of the usage of quality management for improved customer satisfaction. The finding shows that quality, management was used to improve satisfaction of customers.

Dedication

I would like to dedicate this research study to my Parents Helene Feudjou nee Dongmo and Jacques Dongmo, to my beloved daughter Melissa, my fiancée Charlie Deba and to all those who teamed up in support throughout this research. I would also like to highlight the input of my profoundly articulate and talented supervisor, Dr Darlington Onojaefe, you inspired and gave me a new map to chart through life, for that I truly thank you.

Thank you for your faith and support.

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Acronyms

SABS: South African Bureau of Standards

SPC: Statistical process control

QM: Quality management

SA: South Africa

G8D TOPS: The G8D TOPS is a problem solving methodology emphasizing team approach structured in eight steps.

PARETO PRINCIPLE: This theory was developed by an Italian economist stating that in any organization (20 percent) of problems are responsible for (80 percent) of the total cost.

FISH BONE DIAGRAM: A visual tool used to help identify the cause and effect of a problem during the search of a potential root cause.

POKAJOKE: This is a mistake-proofing technique applied to design of equipment and machinery. Once in place the system will only allow the corresponding part to be fixed in the correct position.

Conformity: Meet or comply with requirements as specified by the customer.

Continual improvement: Continual improvement is a set of recurring activities that an organization carries out in order to enhance its ability to meet their customer requirements consistently.

Corrective action: Corrective actions are steps that are taken to eliminate the causes of existing nonconformities in order to prevent recurrence.

Customer: A customer is anyone who receives products or services from a supplier organization. Customers can be people or organizations and can be either external or internal to the supplier organization.

Customer satisfaction: Customer satisfaction is a perception. It is also a question of degree. It can vary from high satisfaction to low satisfaction.

Nonconforming product: This occurs when one or more characteristics of a product fail to meet specified requirements, it is referred to as a nonconforming product.

Preventive actions: Address potential problems, ones that have not yet occurred.

Product: A product is the output of a process. Products can be tangible or intangible.

Service: Service is the result of an interaction between a service supplier and a customer.

Quality management: Quality management is the act of providing companies with a set of principles, while overseeing all activities and tasks needed to maintain a desired level of excellence with the objective of achieving customer satisfaction constantly.

Lean manufacturing: Manufacturing philosophy consisting of waste elimination within the entire manufacturing process.

Statistical process control: It is the philosophy of using graphic and data collection methods for measuring, controlling and minimizing process variation.

Chapter 1 Introduction

1.1 Introduction and Background

The concept of customer satisfaction is viewed differently by different academics. The study followed the position that has been established in the marketing literature that customer satisfaction is influenced by three factors: 1) consumer satisfaction is a response to (emotional or cognitive); 2) the response to (expectations, product, consumption experience.); and 3) the response to (after consumption, after choice) (Giese, & Cote, 2002). In today's market, service and manufacturing companies have to be concerned about the quality of service provision. This is so because industry competition has peaked and there is significant consumer awareness of product and service.

Through the implementation of quality management, organization seeks to enhance workflow process and change the overall business strategy. With customer, becoming more sophisticated and knowledgeable, management systems that are equally sophisticated with a good knowledge of business processes become imperative for competitiveness (Asparouhov, et al. 2009).

This study is not about the quality management itself. It is about the envisaged usage of quality management benefit. This study identifies customer satisfaction, cost saving and continuous improvement but chooses to focus on customer satisfaction. This focus area is discussed and examined in tandem with quality management usage.

The management of quality looks at the essential property or distinctive attribute that differentiates a company's product and service from competitors (Choi, Dale, & Jody, 2009). The property and attributes are the measured outcome of the activities and performance of a product and service: within the functional term, quality management. This management function is specifically important for organizational success. Therefore, the establishment of a quality management that is effective and beneficial to an organization is necessary (Embretson, et al. 2000). Quality management in organization is the concept of customer and supplier working together for a competitive advantage (Churchill, et al. 2005).

For this to become effective, the customer-supplier interfaces must extend into product and service quality to create customer satisfaction, low cost and continuous improvement opportunities (Williams, Larry, & Flavia, 2010). Current empirical evidence supports implementation benefit but the quality management implementation grows in popularity and usage (Heizer, & Render, 2011). Although, it cannot be assumed that implementation was done in response to growing level of sophistication amongst customers and competitive activities, a

management decision to implement a new management of quality was made that takes advantage of new technology for cost reduction and process improvement. To meet and exceed increased customer satisfaction and growing competition and overcome loss in market share and profit, the quality management provides an effective means to respond (Dagger, et al. 2009).

For the purpose of this dissertation, the manufacturing sector used still has much work to do if they are to enjoy the benefits of quality management implementation. Many of these organization are struggling to meet their customers' requirements and see the quality management as an umbrella capable of offering them good process capability, reduction of customer complaints and increased sales and profits. Although, some industries such as the automotive sector have advanced quality management in support of their production.

An effective way to improve the benefit of quality management usage is to encourage company lagging behind the automotive sector to believe in the benefits of quality management usage as a mean of meeting customer satisfaction. Deming (1986) in his "System of Profound Knowledge" encourages people to appreciate quality management to work in tandem with its requirement for business success. According to Lim, (1999), this is important in ensuring that the system works for the benefit of interrelated parts, materials or even abstract entities that function together to achieve a common purpose.

1.2 Motivation benefits of quality management

Collin, et al. (2003) provide various theoretical explanations of procedural effectiveness associated with quality management by postulating that "...must do" practices for organizations are usually born out of management's desire to embarked in the journey of quality management usage into their organizations without knowing the intended benefit. The road map states that, the desired quality management principle be, analyzed for better understanding of their impact on operational process (Hambleton, Ronald, & Russell, 1993). This is why this study identifies three main benefits (customer satisfaction, low cost and continuous improvement) as its focus area. In addition to benefits identified above, other important benefits ones are the following:

- The ongoing organizations' ability, to research and improve process constantly,
- The improvement must be based on lessons learned from innovation and benchmarking activities,
- All concerns raised by the customer to be given high priority,
- Employees to be involved in the process of solving customer concerns, and
- Top management to provide adequate resources for training as well as leadership and commitment toward customer satisfaction.

The implementation of a quality management in an organization starts with familiarizing the employees with the requirements and demands of the system during the implementation process; as the effective usage of the system would help a company to achieve maximum implementation benefit (Oliver, 1997). These benefits therefore, create a new management culture where employee quality management and consciousness becomes an inexplicable part of the overall management culture. This new quality management culture was developed and maintained to realize the intended benefits identified, which is the focus area for this study.

Another motivation for the quality management implementation is companies desire to have a third party seal of best performing companies in customer care. This seal often becomes a marketing instrument for rating companies as part of their competitive tool (Vandenberg, et al. 2000). This desire has forced companies who have implemented quality management to undergo a third party certification body such as the SABS (South African Bureau of Standards), to achieve competitive advantage.

In view of the above statement, the study progress to the next section to define statement of the research problem.

1.3 Statement of the research problem

Quality management usage in the context of global economy is an imperative answer to company competitiveness in their quest to meet and exceed ever-increasing consumer quality expectation. This management approach could lead to an increase in satisfaction for customers when the usage of quality QM implementation benefits identified is use as part of the competitive strategy through cost saving and continuous improvement.

1.4 Research question

The research question for this study reads as follows:

- Can identified quality management usage implementation benefits be used to achieve cost and product improvement objective for competitiveness?

The investigative questions researched in support of the research question read as follows:

- Can the use of identified implementation benefits helps to achieve competitive advantage through the realization of customer satisfaction, low cost and continuous improvement?

1.5 Primary research objectives

The followings will serve as the main objectives of the study:

-
- To explore the benefits of the implementation of the quality management in SA organization with emphasis on customer satisfaction, cost saving and continuous improvement.
 - To explore the ramification of quality management implementation with regard to customer satisfaction, employee training and customer requirements.

1.6 Research process

The research process provides insight into how the study intended to evolve from the research proposal to the final submission of the dissertation. Remenyi, et al. (2002:290), feel that a research process consists of eight specific phases, common to all scientific-based investigations.

These phases are:

- Review of the literature,
- Formulate the research question,
- Establish the methodology,
- Collect the evidence,
- Develop the conclusion,
- Understand the limitation of the research and
- Produce management guidelines
- Recommendations.

This dissertation follows a process proposed by Collis and Hussey (2003:15), who define a research process as consisting of six fundamental stages, mainly:

- the research topic identification
- definition of the problem
- determining how the research is going to be conducted
- collecting the research data
- analyzing and interpreting the research data and
- Writing up of the dissertation or thesis.

1.7 Data collection design and methodology

Data collection is a means by which a researcher collects reliable information to meet the research objectives. For this research study, the questionnaire was administered to randomly selected respondents working in quality unit of their organization. These organizations are mostly small to medium-sized manufacturing companies based in Cape Town. The questionnaire used in this study is align with survey requirements. Remenyi, et al. (2002:290) defines a 'survey', as "...the

collection of a large quantity of evidence usually numeric, or evidences that will be converted to numbers, normally by means of a questionnaire.”

Two approaches often referred to in order to structure questions are the following:

- Closed-ended questions and open-ended questions

Closed ended questions’ was be used in the questionnaire of this research because this technique implies a quantitative research and allows respondents to quickly rate a list of well-structured questions with predetermined answers.

- Open-ended

The open-ended questionnaire asked questions that required respondents’ opinions in words. This questionnaire-designed technique is particularly useful when the research is qualitative.

1.8 Research design and method

There are different approaches to research depending on the research question and objective (Stuart, & Wayne, 1995:3; Collis, et al. 2003:10). In this research the qualitative approach is use to understand the phenomenon under investigation with a view to describe it in relation to real life situations (Aaker, et al. 1990). The various types of research are be categorized with regard to the following:

- the purpose of the research (exploratory, descriptive, analytical, and descriptive research),
- the logic of the research (deductive or inductive research),
- the outcome of the research (applied or basic research), and
- The process of the research (qualitative or quantitative).

According to Yin, (1994:1) and Collis and Hussey (2003:58-70), the case study research can be defined as exploratory research used in a field where there are no or very few existing theories to understand a phenomena. The following are some type of case studies identified:

- descriptive case studies
- experimental case studies
- exploratory case studies
- Illustrative case studies.

For the purpose of this research, the survey research a method applied to random sampling is use to collect empirical data from 110 respondents representing randomly selected manufacturing companies based in Cape Town. The collected information was captured and analyzed using descriptive statistic presented in tables and charts to understand and describe respondents’ perception of potentially envisaged implementation benefit of quality management.

Data collected in support of the literature review on the relevant topic, came from the following sources listed below:

-
- Cape Peninsula University of Technology library,
 - Google scholar,
 - the university of Nairobi library,
 - the University of Johannesburg library,
 - the University of Cape Town library,
 - the University of Stellenbosch library,
 - the South African Bureau of standards,
 - UNIDO library,
 - the quality management standard,
 - the SABS library, and
 - Various theses and dissertations in the field of quality management implementation and customer satisfaction.

1.9 Data validation

Reliability refers to a sound and credible description of valid research outcomes achieved. Collis and Hussey (2003:185) argue that 'validity' is concerned with the extent to which the research findings accurately represent what is happening. Data must be a true reflection of the topic being under investigation. Three major types of validity were identified, mainly 'content validity', 'criterion-related validity' and 'construct validity' (Cooper, & Schindler, 2006:318-320). This study applies content validity, which refers to the content of the measuring instrument that offers sufficient coverage of the investigative questions and sub-questions guiding the study (Brace, 2004). Criterion related validity reflects the success of measures used for prediction or estimation. Construct validity refers to the theory and measuring instrument that should be taken into account in order to evaluate construct validity.

Reliability mainly focuses on the findings of the research (Bateson, & Hoffman, 1999). If anyone repeats the research and gets the same outcomes, this means the findings are reliable. There are three common ways of determining the reliability of responses to questions in questionnaires, mainly: 'test re-test method', 'split-halves method' (which will be applied to this study) and 'internal consistency method'.

1.10 Ethics

Saunders, Lewis, and Thornhile, (2000:130), in the context of research define ethics as the "appropriateness of your behavior in relation to the rights of those who become the subject of your work, or are affected by it". According to Leedy, Ormrod, (2001:107-108), the majority of problems regarding ethics in research fall into one of the four categories below:

Protection from harm: In cases involving creating a small amount of psychological discomfort, participants should know about it ahead of time and any necessary debriefing or counselling should follow immediately after their contribution.

Informed consent: (Brotherton, 2008). All the participants should be inform in advance about the nature of the study including the right to participate or not to participate (Capioppo, 2010). According to Leedy, Ormrod, (2001:108), informed consent should be in a form covering the nature of the research as well as the instructions concerning a participant's contribution in a research study and should include the following:

- a brief description of the nature of the study,
- a description of what participants will be involved in terms of activities and duration,
- a statement indicating that participation is voluntary and can be terminated at any time without penalty,
- a list of potential risks and possible discomfort that participants may encounter,
- the guarantee that all responses will remain confidential and anonymous,
- the researcher's name and contact details,
- an individual or office that participants can contact in case of any concern regarding the research study, and
- An offer to provide details information about the research study.

Right to privacy: The researcher should kept the nature and performance of any participant strictly confidential (Keller, 1993).

Honesty with professional colleagues: Researchers must reported the findings in a complete and honest fashion without misrepresenting or intentionally misleading others. Data fabrication to support any conclusion is prohibited (Erto, & Vanacore, 2002).

1.11 Research assumptions

The following two assumptions were applicable to this research:

- Organizations that implement quality management do so because they want benefits associated with customer satisfaction, cost saving and continuous improvement so that they can be more competitive, and
- Quality management if well implemented, increases customer satisfaction and decreases production cost while enhancing the continuous improvement process and competitiveness.

1.12 Research constraints

The research constraints pertaining to this study are the following:

The study was limited to organizations that have implemented quality management in Cape Town. Although some difficulties were experienced in accessing company data, especially data related to process improvements and customer feedback, this difficulty was overcome following meeting with management of affected companies and the assurance that the data would be used for the stated purpose of academic research only. This assurance is an important part of companies' policies on confidentiality. This is because most companies' data is not easily accessible.

1.13 Significance of the research

This research focuses on alternative approaches to the usage of quality for improved customer relationship. Given the complexity of quality management, this study examines customer relationship using quality. This information includes amongst others the training and motivation of the employee, treating customer complaints with a sense of urgency and involving employees in the problem solving mechanism. Furthermore, it is expected that this study will make a contribution to the existing published body of knowledge on the specific benefits of quality management implementation with emphasis on customer satisfaction, continuous improvement and cost saving.

1.14 Chapters and contents

The following chapter and content analysis will be applicable to the research study:

Chapter One – Introductory chapter:

In this chapter, a holistic review perspective of the proposed research was undertaken. Formulated research problem preceded question and investigative sub-questions. The discussion of the process includes description of the research design and data collection methodology. Constraints such as participants' location and willing to participate identified and listed as constrained to the study. This chapter concludes by providing a list of the primary research objectives.

Chapter Two – Quality management - a literature review:

This chapter focused on the following:

- an introduction to the concept of customer satisfaction ,
- customer satisfaction,
- cost saving,
- continuous improvement,
- customer focus organization,

-
- importance of the employee in achieving customer satisfaction,
 - importance of training in achieving customer satisfaction,
 - customer focus as part of an organization strategic planning,
 - techniques to improve customer satisfaction,
 - tools of customer satisfaction,
 - surveys and questionnaire,
 - benefits and challenges of a questionnaire,
 - customer complaints data base, and
 - a conclusion

Chapter Three – Research design and methodology:

In this chapter, the researcher intends to define the survey environment and the boundary lines emphasizing the data collection and intended sample size. The researcher defined the measurement parameters scales, and elucidated on the questioner's design. This chapter ended with a list of questions for the target population.

Chapter Four – Data analysis and interpretation of results:

In this chapter, the data gleaned from the survey was subject to statistical analysis and interpretation.

Chapter Five – Conclusion and Recommendations: In this chapter, the study I ended with a conclusion. The research problem, research questions, investigative questions and main research objectives were revisited. Recommendations to mitigate the research problem were made.

1.15 Conclusion

In this chapter, an introduction and background of the dissertation was provided. The research process was explained and the research problem, research question and investigative questions and research objectives formulated. The research design and methodology, which included the data collection design and methodology, were depicted. This chapter concluded with an overview of the dissertation structure, chapter and content analysis. In the next chapter, a discussed relevant literature and opposed and proposed views was used to motivate this study.

Chapter 2 Literature review

2.1 Introduction

In this chapter, the literature review was conducted with regard to available publications that help the researcher understand the research problem. In this regard, the following areas were identified, namely customer satisfaction concept, the meaning and theory regarding cost saving and continuous improvement. The importance of the employee in achieving customer satisfaction, customer satisfaction concept and continuous improvement, the literature also touched on areas such as customer satisfaction and customer concerns management strategies and tools used to achieve customer satisfaction.

The 20th century is a period that has witnessed improved business processes using quality management (Kotler, et al. 2005). Organizations are striving toward meeting their customer's requirements through cost saving and the use of continuous improvement. This situation has continued in the new millennium (Maleki, 1991, cited in Semiz, 2007). The concepts such as customer and consumer relations, continuous improvement, cost saving, customer satisfaction, employee empowerment and training have become important in all organizations (Wreden, 2004).

The customer is king because profits realized from transactions with customers are used to pay the bills, salary and wages of employees (Minazzi, 2008). If an organization fails to keep their existing customer happy, they will leave and take with them other potential existing customers because they will share their negative experience. At the same time, a satisfied customer will return and will bring with him more customers through the snowball effect, (Buttle, 2004).

This study investigates the extent to which organizations are able to meet and exceed customers and competitors' expectations of customer centricism. It is therefore necessary to understand what the customer needs are and the business process that is able to deliver on the customer requirements. Putting in place a system that allows processes to continually improve to meet customer expectation and ensure they remain loyal to their existing customer is vital for any organization. It is in this context that Kan (1995), and Wreden (2004) state that "A dissatisfied customer will tell 7 to 20 people about their negative experiences. A satisfied customer will only tell three to five people about their positive experience".

According to Capioppo, (2010), in order to understand the pillars responsible for achieving a quality service and continuously meet customer requirements, it is important for concerned organizations to build internally the concept of customer focus among their employee. This

important pillar would help improve the employees' perceptions of customer expectations at the same time as enhancing the organization's ability to deal with customer complaints (Harvey, & Green, 1994).

This literature review is divided in three main areas. The first one focuses in customer oriented organization and culture as well as service standards, the second section focuses on the importance of the employee in achieving customer satisfaction while the last section focuses on tools and strategies for improving customer satisfaction.

2.2 Customer satisfaction

In the 21st century, customers are more educated and informed about their rights as consumers of goods and services. By spending their money, a customer expects in return, a value for that money in exchange of the product or service received (Harvey, & Green, 1994). Customer satisfaction can be a highly personal assessment that is greatly influenced by individual expectations; many definitions of the concept are based on the observation that customer satisfaction is the results of consumer confirmation, or disconfirmation, of individual expectations regarding a service or product (Capioppo, 2010). This is why, it is necessary to avoid difficulties stemming from the kaleidoscope of customer expectations and differences. Buttle, (2004) states that "companies should concentrate on achieving objectives that are more closely linked to customer requirements always." This why other authors focus their attention, in customer feedback, in order to establish what really matter to their customers. The truth of the matters is that customer will always held their providers of goods and services accountable (Newton, 2006).

Other authors, Buttle (2004), and Meleki (1991), argue that customer satisfaction is a pleasurable fulfilment response by customers. Furthermore, Maleki, (1991) is of the opinion that, "...customer satisfaction is the customer's fulfilment response to a consumption experience, or some part of it". Dissatisfaction is an pleasurable fulfilment response. The 'experience, or some part of it' component of the above definition allows the satisfaction evaluation to be directed at any or all elements of the customer's experience. This can include the product, service, process and any other components of the experience (Capioppo, 2010).

An effective way to maximize customer satisfaction is the organization producing goods and services and an ability to develop and implement a process improvement methodology that will ensure a constant delivery of consistent output to their respective customer where needed on time (Heizer, & Render, 2011). If the perception is positive, the customer will be happy, if it is negative, the customer will be dissatisfied (Pizam, & Ellis, 1999). It is in this context that Deming, (1986) in his, "System of Profound Knowledge" encourages people to appreciate a quality

management so as to work in tandem with its requirement for business success, and improve the benefit of quality management by continuously improve business process to meet constantly changing production and services requirements.

According to Buttle, (2004) cited in Hattingh, (2007) the most common way of operationalizing satisfaction is to compare the customer's perception of an experience, or some part of it, with their expectations. Many companies' research requirements and expectations to determine what is important for customers, and then measure the customers' perceptions of their performance compared to the performance of competitors.

The organogram in the next page (Figure 2.1) illustrates that satisfaction increases because customer insight allows companies to understand their customers better, and create improved value propositions. As customer satisfaction rises, so do customer repurchase intentions This in turn influences actual purchasing behaviour, which has a significant impact on performance (Buttle, 2004 cited in Hattingh 2007)

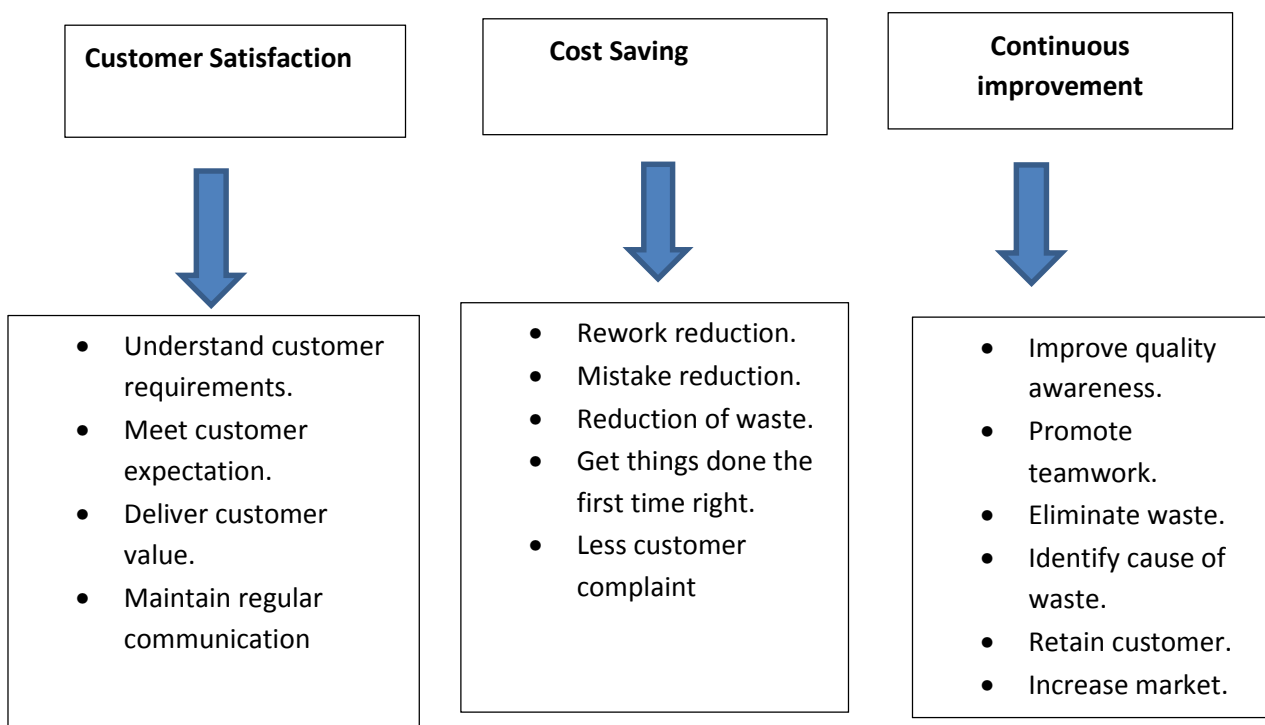


Figure 2.1 : Customer satisfaction, loyalty and business performance.

Source: Adapted from: Buttle, (2004).

2.3 Customer relationship management

The figure 2.1 in the previous section is used as an example of the implementation benefits of quality management. By identifying customer needs and building an environment that will be able to give the customer what he wants always constitutes one fundamental pillar of the quality management implementation benefits (Newton, 2006). In the process of using customer complaint mechanisms to drive continuous improvement, an organization that has implemented the quality management improves their ability of getting things done right the first time, thus reducing the manufacturing cost. These improvements can be maximized if different parts of the organization work together as a unit to achieve a common goal. This is why according Lim, (1999), an organization should ensure that the system works for the benefit of interrelated parts, materials or even abstract entities, that function together to achieve a common purpose.

Non-value operation such as rework and extra inspection are eliminated thanks to training efforts and improved employee quality awareness (Prideaux, et al. 2006). Above all meeting the customer requirements should be at all times the highest priority for all employees and the top management should facilitate this by allocating adequate resources in processes and training development of employees because the customer is the king (Heizer & Render, 2011).

With the goal of the business being to make money, every action taken and implemented as part of an organizations' drive to achieve and exceed customer satisfaction will have to be linked or directed at improving the company's financial position (Minazzi, 2008). This is why Lim, (1999) believes that by creating an integrated customer management system with focus on quality; customer satisfaction companies will ultimately be able to see an improvement in their financial performance.

Financial performance is directly linked to quality improvement and identification of process inefficiencies and root cause detection and elimination through implementation of adequate corrective action (Raab, et al. 2008). Organizations that are aiming to be successful need to pursue the following activities:

- gathering customer information about the product and service requirements,
- deal with each customer complaint effectively by identifying the root cause and implement the corresponding corrective action as well as preventative measure,
- ensure all employees are aware of customer complaints,
- involved employee in the process of solving customer complaints and
- improve employee quality awareness through training

The best designed customer-oriented process seen in world class organizations will deteriorate and take down the organization unless adequate measures are taken to sustain the gains through the identification of key critical success factors responsible for maintaining the business market share and profit increase (Heizer, & Render, 2011). These factors include amongst others, the benchmarking of competitors' products, the availability of skills within the organization, the training needs of employees within the organization and the use of customer feedback as improvement and management tool (Reichheld, 1996).

According to Newton, (2006), one of the most important factor to be considered while evaluating customer satisfaction, is the relationship that exists between the consumer and the product and the service provider. This relationship is built around customer loyalty, taking into consideration the fact that a loyal customer will always come back and will eventually bring more customers to share his experience (Kotler, et al. 2005).

Therefore, a company offering better products will have an extended pool of loyal customer while those offering inferior products will struggle to keep their existing customers (Feig, 1993).

There is a direct link between customer loyalty and increased profit, Schaaf, (1995) highlights the fact that, the more customers the organization has, they remain loyal to the brand resulting in an increase in sales as a result of positive referrals. The quality of products and services will also improve due to continuous improvements initiatives. The number of customer complaints will decrease to a level closer to zero. This order effect comes into play when costs go down and revenues go up, the result being increased profits (Lovelock, 1995:250).

2.3.1 Benefits of quality management implementation

McGraw-Hill, (1999) observed a substantial increase in product quality and reduction in defective products by companies that implemented the quality management. An extract from the result of the survey is presented below:

- 54% of responding companies saw a reduction in the defect rate of their products after quality management implementation.
- 55% saw reduction in the cost of quality in their manufacturing processes (scrap, reworks & Inspection)

As part of the same survey conducted by the same author, it was evident that the implementation of the quality management survey resulted in an increase of sales and market share as seen below:

- 15.5% respondents said that the most significant benefit was improved customer demand/increased market share.
- 53.8% said there was some improvement in market share due to quality management implementation
- 52.8% said some improvement in sales due to quality management implementation

The expectations of prospective and current organization currently using the quality management, will lead to the concept of quality service being explored in the next paragraph.

2.3.2 Quality service

According to Harvey, Green, (1994) cited in Newton (2006), the best means of defining quality, is to describe it as clearly as possible using the criteria that each stakeholder uses when judging quality. Quality is define as the ability of goods or service provider to meet consumer's expectations (Capioppo, 2004). The expectations are that an organization must provide a quality service or product to their customers. For that to happen, the following factors are taken into consideration:

- due date,
- packaging requirements and mode of delivery,
- reliability and dependability,
- place or location of delivery,
- employee competence and professionalism,
- empathy,
- responsiveness, and
- assurance

After a review of the quality service, the next section will be dealing with a literature around a customer focus organization.

After exploring the requirements of a quality service in this section where we learnt about the importance of the customer requirements, the next section focus in customer requirements driven organization highlighting mainly why the understanding of customer requirements is vital if customer satisfaction is to be achieved

2.3.3 Customer focus organisation

According to Hattingh (2007), customer satisfaction should not be a difficult task. Organization should only understand the basic customer requirements and design a process suitable to produce goods and services meeting these requirements. Some customers believe that they are either 'satisfied' with the service receive or they are 'dissatisfied'. It is within the same context that Upton, (1995) states that if it were that easy as mentioned at the beginning of this paragraph, then obtaining customers' opinions about how satisfied they are with products and services they receive from an organization should be a relatively straightforward matter. So how would organization master the art of achieving constant customer satisfaction and clearly communicating it to its entire employee?

One effective weapon available at management's disposal in every organization is the company mission statement, which clearly states the clear direction the organization is to follow (Heizer, & Render, 2011). This mission statement should be customer oriented and easy to understand. While formulating a mission statement, top management in the concerned organization should always consider the following guidelines as suggested by Keller (1993) & Upton (1995):

- serving as a guide to the employee by providing constant feedback regarding the level of service achieved as per number of received customer concerns
- providing customer satisfaction by implementing corrective action to address areas of inefficiencies that are highlighted
- promote the culture of customer satisfaction through training and involvement of the employee in the customer concerns resolution process

The importance of the above guideline is justified by the fact that mission statements that allow employees to participate actively in the process leading to customer satisfaction, promote a bottom up perception within the organization. Employee morale are high because there is a feeling of belonging to the company (Newton, 2006).

In addition to focusing on customer satisfaction, mission statements of successful companies, employees are the most valuable resources in any organization. It is therefore important to have an inclusion of employee satisfaction and motivation and reward mechanism as part of the organizational growth strategy (Green, 1994). This is necessary, because organizations are recognizing the contribution made by their employees in their quest of achieving customer satisfaction (Swarbrooke, & Horner, 2007).

In the next section, the literature on the importance of employee contribution to the achievement of customer satisfaction explored.

2.4 Employee contribution

Customer satisfaction is a human response to product performance. For this to happen, customers' willingness to buy the product and make a repeat purchase is an indication of satisfaction from previous experience (Green, 1994). The economic value of the repeat purchase is important in a world dominated by the neo-liberal capitalism where the performance of companies is based on numbers (Bollen, 1989). In this instance, the first priority is customer satisfaction with the expectation of financial gain to follow when companies' assets are appropriately deployed for maximum return on investment. Holistically, this approach to customers' satisfaction includes, internal marketing activity aimed at the training and development

programme for employees (Minazzi, 2008). The implementation of a training programme is aimed at providing on the job training to employees so that they are able to provide quality products and services to satisfy customers with a high degree of confidence.

The treatment given to employees by their supervisors has a direct impact on the way those employees treat the businesses' customers, because a satisfied employee will always give his best to ensure the customer always come back (Williams, & Buswell, 2003). A dissatisfied employee often takes more time off due to illness and will not be prepared to go extra mile to defend the business interest, their level of motivation is low and they spend more time looking for another job or expressing their displeasure publicly with a sad face (Newton, 2006). The importance of treating employees well is the first step in recognizing their contribution and loyalty toward the business because they themselves can be customers as well to the organization and can be used to market the business brand in their homes and communities (Zemke & Schaaf, 1989).

After exploring the contribution of employee in achieving customer satisfaction, the next section will dealing in detail with the importance of training in achieving customer satisfaction.

2.4.1 Importance of training

An organization that fails to provide training for its employees can only promote insanity because it is through the learning process that employees identifies areas of inefficiencies and learn how to apply specific techniques to address the causes of problems as well as preventative measures to prevent problems from happening again (Heizer, & Render, 2011).

Therefore, hiring the right people capable of doing the job and sharing the organization's culture and non-negotiable standards is the key to achieving the organization's goal (Luckett, & Sutherland, 2000). It is imperative that for an organization to use professional firms in the field of human resources to help them select and attract young, talented and experienced individuals that will best fit into their organization. The importance of focusing on the customer, while hiring new employees is vital in achieving the company's goal and attracting employees that will be reinforcing the customer focus objectives (Green, 1994).

According to Dagger, et al. (2009), a company with a customer focus ideology should investing on training; and should have a plan in place for induction, and on the job training for new employees. Employee in need of special skills should be able to attend the required training at the expense of their employer, this is particularly important for the usage of quality management skills (Newton, 2006). A customer-focused organization could improve an employee's skills by investing in seminar programmes (Laws, 2004). This seminar programme could also serve as

motivation for employee who would normally use this programme to learn new work ethics and practices (Bollen, 1989).

Employee and their supervisor should have regular meetings to review work performance within their respective areas and agree on adequate action to address areas of concerns (Bolton, & James, 1991). Meeting between employees and supervisor discussed above also happens in the hospitality industry.

2.4.2 Strategic planning

In order to be successful as an organization with an objective it is necessary to meet and exceed customer expectations; however, few important steps are to follow as basic requirements (Minazzi, 2008). They include having a process to deliver timely quality products and services to the customer. This is important because an effective and successful organization satisfies every detail to ensure that the customer's requirements are well understood (Nguenang, 2010).

According to Upton (1995), customer service standards provide a framework for performance management and accountability. Accountability can only be effective if the person performing the job is declare competent after a successful interview or through practical test performed on the job itself. An employee is the person responsible for processing the customer order at all levels. Therefore, there is a need for a customer-oriented organization to create an environment that will promote a culture of customer satisfaction (Green, 1999).

By creating an environment that will promote customer satisfaction automatically, means that the organization has embarked on the journey of quality and process improvement, cost saving and increased market share (Pizam, & Ellis, 1999). The following headings below will indicate this process:

- attention is being given to details,
- customer concerns are being treated with the highest priority,
- top management is being involved in process improvement initiatives,
- employees are being given training regularly,
- employees are being motivated,
- employees are participating in the process of solving supplier-related quality issues,
- employee are aware of customer requirements and their complaints, and
- a customer database management and a response mechanism to customer complaints exists

After examining how customer satisfaction can be used as part of an organization strategic planning, the next section is focusing on techniques to improve customer satisfaction.

2.5 Methods to improve customer satisfaction

In order for organizations to stay close to their customers, it is important to obtain useful feedback from respective customers and clients, analyze the data and converting it into “concrete” steps to improve their performances (Heizer & Render, 2011). Some organizations want feedback from customers about existing or new products and services. Others want to know the best way of using their resources to address issues of concern of customers to avoid repeating them in the future. For this reason, they are trying to demonstrate a commitment to listening to their customers (Erto, & Vanacore, 2002).

One effective way of obtaining effective feedback is by receiving all customer complaints and investigating them thoroughly, such as identifying the root cause to the problems, implement the necessary corrective actions and putting in place a preventative system that will prevent the problem from happening again (Buttle, 2004).

By fixing one problem permanently, trust and confidence with the customers is built and the probability of them moving away from a company becomes less due to the efforts and practices used by the organization to improve the process and promote the habit of continuous improvement, quality awareness and teamwork among employees (Heizer, & Render, 2011).

After reviewing techniques of customer satisfaction improvement, the next section will focus in tools used for customer satisfaction such as survey and questionnaires.

2.5.1 Tools of customer satisfaction

In general, methods used by South African companies to measure customer satisfaction are similar, depending on their involvement in providing service or product to their customers and may include a customer survey and questionnaire:

Surveys and questionnaires are some of the most popular and reliable research tools in the field of research and marketing and are designed to achieve the following objectives (Brace, 2004):

- assess the level of customer satisfaction with a product or service received,
- identify contributing factors to customer dissatisfaction,
- determine how well a product or service provided is performing,
- performance is generally given in the form of on time delivery, the rejection rate and responses to corrective action raised by the customer, and
- comparing own standards to other competitors

The section reserved to the tools and techniques used for customer satisfaction is follow in the next chapter by the survey and questionnaire.

2.5.2 Survey and questionnaire

Leedy and Ormrod (2001:195), state that: “a survey is simple in design; poses a series of questions to willing participants; summarizes their responses with percentages, frequency count, or more sophisticated statistical indexes; and then draws inferences about a particular population from the responses of the sample”. Watkins, (2008:140) is of the opinion that the prevailing survey design used in the world of business and management belongs to a ‘descriptive survey’.

The customer survey and questionnaire designed for data collection should be done after a critical evaluation of the research title, the research question, the investigative (sub) questions, and the key research objectives as stated by Brace (2004).

The statements or questions within the survey are designed with the following principles in mind:

- avoidance of double-barrelled questions or statements,
- avoidance of double-negative questions or statements,
- avoidance of prestige bias,
- avoidance of leading questions or statements, and
- avoidance of the assumption of prior knowledge

The questionnaire mainly deals with questions associated with important issues raised with clients over a period.

After reviewing in details in this section the tools used for customer survey and questionnaire, the next section will focus on challenges of and benefits of customer survey.

2.5.3 Benefits and challenges of customer survey

According to the Council of American Survey Organization, the public views consumer product polls and pollsters in a generally positive manner compared to political and other polls. One study by Brace, (2004), found that at least sixty per-cents of the public feels that market research about products and services has a positive impact on society. Seventy per-cents consider the people who conduct such surveys to have positive impacts on society.

Organization using the survey can quickly process and capture vital information with relatively little effort and quickly use tools of data analysis such as Pareto to identify areas of concern and allocate sufficient resources to address the gap observed with objectives of improving in the future. The view of the survey is not always universally accepted. This is why the next paragraph depicts some limitations of the survey (Swarbrooke, & Horner, 2007).

The survey responses may be influenced by the measurement itself through various forms of bias. For example, most surveys are voluntary and some researchers have found differences

between survey respondents and non-respondents (Minazzi, 2008). People who respond to surveys answer questions differently to those who do not respond and late responses are answered differently to early responders. Most demographic studies report that non-responses are associated with low education. One study by Capioppo, (2010), found that non-respondents were more often single males.

After exploring the benefits and challenges of the customer survey, the next section focus mainly on the customer complaint database.

2.5.4 Customer complaint database

According to Capioppo, (2010), an effective way of keeping track of customer complaints is the creation of a database to register each complaint as soon as it is received by the organization, with the following detail listed below:

- date and time received,
- who complained,
- nature of complaint,
- description of problem,
- scale of the problem,
- a recurring or new problem,
- Scale of the problem, and
- Geographical location

This database is an indication of an organizational commitment to continuous improvement through detailed recording of customer concerns. The next step after recording the customer concern consists of assigning it to a team leader to lead an investigation into the root cause of the problem as part of a team. The customer complaint database should be able to allow various team leaders conduct their investigation in order to update the status regularly and provide feedback, which progress to the customer concerned as a matter of urgency (Heizer, & Render, 2011).

The availability of corrective and preventative systems, within an organization is one of the non-negotiable elements for organizations that have implemented a quality management. The corrective and preventative action system provides confidence that an organization has a system in place that allows it to register each customer's complaints and investigate them to identify the root cause and develop adequate corrective action to deal with the problem and implement preventative action to avoid the reoccurrence of the problem (Pizam, & Ellis, 1999).

In order for such a system to work effectively, it is required from the concerned organization to have a culture of quality awareness through the understanding of customer requirements, and to view customers as their reason for being in business because the customer pays the bills.

2.6 Summary

In this chapter, the focus has centred on the importance of understanding a consumer's requirements and the implications of failing to understand what the customer really wants. Because customers are the reason for any organization's existence, they should never be taken for granted. In order to survive an organization should constantly be in contact with their customers in order to ensure that their concerns are well understood and addressed to ensure they remain loyal and provide more business for the organization. The next chapter will be dealing with the research design and methodology.

Chapter 3 **Research design and methodology**

3.1 Introduction

The previous chapter exclusively reviewed the literature pertaining to key characteristics required to maximize the benefits of the quality management implementation while focusing on customer satisfaction, cost saving and continuous improvement as part of the implementation benefits. This chapter focuses on the research design and methodology as well as potential limitations observed during the process of data collection. The geographical location where the study took place as well as the following four characteristics listed below:

- the population,
- the sampling type,
- the data collection instrument, and
- ethical considerations pertaining to this research endeavour

3.2 The survey environment

The manufacturing sector used for this survey still has much work to do if they are to enjoy the benefits of quality management implementation. Many of these organization are struggling to meet their customers' requirements and see the quality management as an umbrella capable of offering them good process capability, reduction of customer complaints and increased sales and profits. Although, some industries such as the automotive sector have a much-advanced quality management in support of their production, although it was later discover that the robust quality management was in line with safety and environmental requirements rather than customer satisfaction alone. However, the quality management implemented in the automotive sector is high when compared to the same industry worldwide. For this reason, South Africa has the capability to build and export cars to developed countries. In general, the South African environment is classified as an emerging or developing country that is witnessing the deployment of modern technology, most especially in manufacturing. This scenario makes it the strongest economy in Africa.

A survey on quality management application in the manufacturing sector therefore encountered limited challenges compared to a similar study in an environment with little or no application of the same system (Heizer, & Render, 2011). In addition, the level of consumer awareness of product quality is higher with South African consumers who themselves have been aggressively exposed to sophistication in manufacturing of product in their community. Other quality management used are lean manufacturing, statistical process control, environmental management, corrective and preventative action type such as the G8D TOP, Pareto principle,

Poka Yoke, fish bone diagram assist organizations to avoid process related mistakes (Heizer, & Render, 2011).

These quality management models are mostly-problem solving tools useful for automotive industries, electrical engineering companies, food processing plant and chemical industries. This study evaluates the quality management, which is a process oriented guide and quality reference for third party certification. Manufacturing companies in different industries in South Africa commonly use the quality management to improve their process ability to meet customer requirements. The quality management evaluates the implementation benefit with focus on customer satisfaction.

After touching into the section reserved to the survey environment, the next section is dedicated to the discussion of the research methodology, which is the aim of the chapter.

3.2.1 Aim of this chapter

The aim of this chapter and the survey contained therein is to discuss the research methodology through understanding of the usage of quality management, implementation benefit using customer satisfaction, to understand respondent's perceptions and by extension, examine cost saving and continuous improvement benefits. This understanding would help in determining other variables that may be associated with quality management implementation. It can be assumed that this management approach would probably lead to an increase in satisfaction for customers when the implementation benefits identified are used as part of the competitive strategy. A population is defined as the total number of people that represent the main subject of research interest, according to Watkins, (2008:54). The target population for this research was selected from organizations that implemented the quality management in Cape Town.

The selected organizations are companies operating in the following field: Plastic injection moulding, electrical engineering, electronic manufacturing, and mechanical engineering. The motivation behind the selection of these companies was mainly due to their involvement in the implementation and adoption of the quality management. There was a high probability of having enough employees with adequate knowledge and experiences in these organizations. The average number of employees per organization was 90.

3.2.2 The choice of sampling method

A sample is a portion of a population under consideration for the purpose of the research (Collis, & Hussey, 2003:155-150). According to Burns, Grove, (1997:355), the selected sample should

have similar characteristics to the population under study, to make possible the derivation of the results that will represent the population.

Initially the researcher chose sampling methods with lists of contacts obtained from professional networks as well as industry contacts and businesses (Remler, et al. 2011). This sampling method started with an establishment of a network that relies on a few individuals having enough knowledge around the research problem. This network of knowledgeable contact carefully selected to meet the researcher's expectation that responses would be qualitative and reliable. Although snowball-sampling methodology described here was very relevant to most social science research, it was unsuitable for this particular study (Burns, & Grove, 1997).

This sampling method of snowball relies on referrals from personal contact with respondents known to the researcher. Snowball sampling is a useful tool for building networks and increasing the number of participants (Remler, et al. 2011). However, the success of this technique depends greatly on the initial contacts and connections made.

Due to concerns around the reliability of recommended respondents by their previously used contacts, and the absence of a sampling method being applied, there was a need to eliminate the bias and vague overall sampling size and the researcher for the purpose of this study, decided to use random sampling. Random sampling is the selection method where all members of a population have an equal chance of being selected (Mersha, 2000).

There are two main types of samples generally considered acceptable: in statistics, probability or representative sampling and in-probability or non-representative sampling (Watkins, 2008:54-57). Probability sampling representative sampling is considered most reliable because they come in two forms random and stratified.

Random sampling of this form assumes that any variations in the sample are due to chance i.e. equal chance of selection, as depicted in the next page.

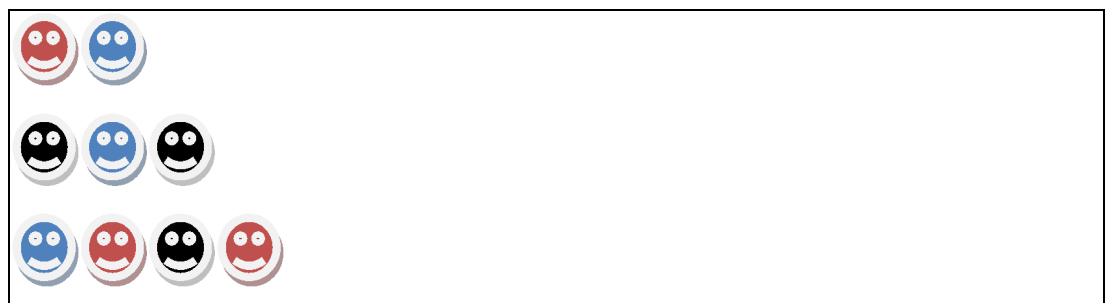


Figure 3.1 Random sampling

Stratified sampling on the other hand, is more defined in its representation as it looks at specific subgroups within subgroups according to the nature of the target sample. For example in the case of this research, to obtain a stratified sample of employees with the required skills and knowledge in quality management. The researcher organized the population by participating organizations, then per department, and then selected required numbers of employee needed as shown in figure 3.2 below.

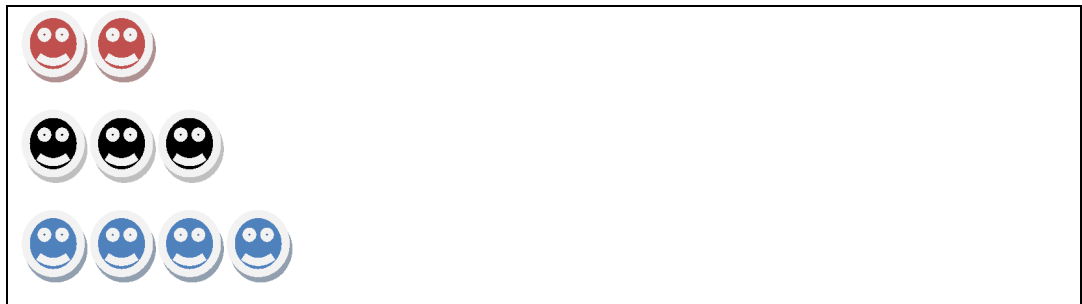


Figure 3.2 Stratified Random sampling

During the data, collection steps were taken, to ensure that only employees who had undergone training in quality management requirements were considered suitable for the study. This research experience is useful in understanding respondents' knowledge about customer satisfaction. Customer concerns management, process improvement and quality. This was done through the briefing given to the concerned organization representative, who also helped in selecting the targeted population. In this study, 110 respondents were selected randomly from manufacturing companies based in Cape Town.

According to Watkins (2008:140), the prevailing survey design used in the world of business and management belongs to 'descriptive survey'. Leedy, Ormrod, (2001:195) are of the opinion that: "a survey is simple in design; poses a series of questions to willing participants; summarizes their responses with percentages, frequency count or more sophisticated statistical indexes; and then draws inferences about a particular population from the responses of the sample".

During the process of designing the questionnaire of the survey, a critical evaluation of chapter one was under made taking into consideration the research title, question and sub investigative question. During the design phase of the survey, steps were follow to avoid the following common mistakes such as: (a) avoidance of double-barrelled questions or statements; (b) avoidance of

double-negative questions or statements; (c) avoidance of prestige bias regarding leading questions or statements; (d) This avoidance of the assumption of prior knowledge (Mersha, 2000).

3.2.3 Validation of research questions

Polit and Hungler (1999:445), suggest that the validity of the data instrument refers to data collection instrument used. In the process of achieving the content and validity during the survey, the statement questions derived from a literature review, which underpinned the area under investigation. These areas ranged from customer satisfaction, process improvement, customer complaint management, employee empowerment and training.

3.2.4 Respondent briefing

Before collecting the data, the researcher welcomed all participants and thanked them for taking time out of their busy schedules to participate in the survey. Then he explained the purpose of the study to all willing participants. A guaranteed as research ethical requirement was given to participants that their information would be kept secret and confidential and organizations involved in the survey asked not to be mentioned in the final draft of the study.

3.2.5 Data collection instrument

The questionnaire used for the purpose of the study was subject of evaluation by competent employees in Cape Town working for manufacturing organizations that had adequate knowledge of quality management and customer satisfaction experience. The data collection form appears in the appendices section at the end of the study.

3.2.6 Summary

In summary, this chapter on research design and methodology deals with various aspects of the research work while highlighting some limitations observed during the data collection stage. In the chapter the data collection instrument was uncovered, the choice of research method depicted and the survey environment highlighted. The focus areas in this section were the following: the population, the sampling type, ethical considerations and the data collection instrument. The next chapter will focus on data analysis and interpretation of results.

Chapter 4 Data analysis and interpretation of results

4.1 Introduction

Data analysis is “the process of bringing order, structure and meaning to the mass of collected data” (De Vos, 2002:339). This chapter discusses the statistical analysis of the questionnaire compiled by the current researcher for the fulfilment of his qualification Magister Technologiae Business Administration.

According to Nguenang, (2010), in most social research the analysis entails three major steps done in the following order:

- cleaning and organizing the information collected, this step is the data preparation
- describing the information that was collected and
- testing the assumptions made through hypothesis and modelling

The responses to the questionnaire developed by the researcher for obtaining information regarding the benefits of the implementation of the quality management in SA enterprises was analysed and interpreted using Micro-soft Excel software.

4.2 Method of data analysis

In this section reserved to the method of data analysis, the researcher exposed areas relevant to this section including the following, the sampling population, inferential statistics, the preliminary results analysis and the data format.

4.2.1 **Validation of survey results**

The data validation is a process of ensuring that a programme operates using clean, correct and useful data. The construction and validation of the collected information is applicable to the point where the questionnaire measures what it was intended to measure originally. Construct validation should be addressed in the planning phases of the survey and when the questionnaire is developed (Banuelas, 2003). These questionnaires are supposed to measure the potential benefits of implementing quality management in SA organization with emphasis on customer satisfaction, continuous improvement and cost saving.

4.2.2 **Data format**

The data, received in questionnaire format from willing participants was captured then processed using an Excel spreadsheet for this purpose. During the capturing process, steps were taken by the custodian of this document to avoid mistake was allowed.

4.2.3 Preliminary analysis

The reliability of the statements in the questionnaire was measured, using the Cronbach Alpha tests. A descriptive analysis was performed on all the original variables, displaying frequencies, percentages, cumulative frequencies, cumulative percentages, means, standard deviations, range, median, and mode. For the purpose of this study, descriptive statistics were the preferred method used as they were found to be the most reliable form of data analysis applicable to this research. Although the Cronbach Alpha was calculated and found to be closer to one, this value of data reliability was not taken into account during the data analysis process and was excluded.

4.2.4 Inferential statistics

Inferential statistics used are:

Cronbach Alpha test. Cronbach's Alpha is an index of reliability associated with the variation accounted for by the true score of the "underlying construct". Construct means the hypothetical variables that are being measured (Cooper, et al. 2006:215-217). Another way to explain it would be that Cronbach's Alpha checks how well a set of items (or variables) measure a single uni-dimensional latent construct (Hair, et al. 1998).

When data has a multidimensional structure, Cronbach's Alpha will usually be low. The Cronbach's Alpha test results will generally be reliable if they are between 0.7 (acceptable) to 0.99 (very good), the closer the result are to 1 the more reliable the data. Any Cronbach's Alpha test results less than 0.7 will indicate that there is lack of reliability in the data. For this study, the Cronbach's Alpha test results were found to be 0.995102913.

4.2.5 Assistance to researcher

The conclusions made by the researcher were validated by the data analysis report. The final report written by the researcher was validated, and checked by a statistician, to exclude any misleading interpretations.

4.2.6 Sample population

The target population used for the purpose of this study consisted of employees from organizations that have implemented the quality management in the Western Cape. A sample was drawn from the target population. The sample realization was randomly selected from employees with good understanding of the quality management requirements and a good understanding of customer satisfaction. Out of 110 questionnaires submitted, 91 were returned rendering an 82.78% realization.

4.3 Analysis

In total, 91 respondents from organizations that have implemented a quality management, in the Western Cape completed the questionnaire; for each variable, a descriptive statistics will be available.

4.3.1 Reliability testing

Reliability tests Cronbach's Alpha Coefficient were done on the questions/statements (which is the measuring instrument in this case) posed to respondents. The Cronbach's Alpha Coefficients for each item were more than 0.70 (the acceptable level according to Anthony, (2008), and thus these items (statements) in the questionnaire, prove to be reliable and consistent for all the items in the scale.

4.3.2 Descriptive statistics

In this section, various tables show the descriptive statistics for all the categorical demographic variables as well as the variables measuring the implementation benefits of quality management. The emphasis is on customer satisfaction with the frequencies in each category and the percentage out of the total number of respondents.

4.3.3 Guideline regarding the analysis of questions

The following is a guideline regarding the graphical representation of each question and related table reflecting the statistics of each respondent.

As seen below, the table represent the output of question one with three categories having frequency of zero mainly, undecided, strongly disagree and disagree. In next section representing the statistical analysis of this question and the remaining twenty three, only frequency greater than or equal to one will be present in the table.

	Frequency	percent	Valid per cent	Cumulative percent
Strongly agree	34	37.4	37.4	37.4
Agree	57	62.6	62.6	100
Disagree	0	0	0	100
Strongly disagree	0	0	0	100
Undecided	0	0	0	100

The list is exhaustive and further analysis of each question used in the survey will provide more light in this regard in the next twenty-four page

Table 4.1: Question 1 output

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	34	37.4	37.4	37.4
	agree	57	62.6	62.6	100
	total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 62.6% of respondents agreed, while 37.4% strongly agreed which totals to 100% (62.6% plus 37.4%). This answer is an indication that all participating organization used for the purpose of this study have indeed implemented a working quality management system. With zero response from undecided respondents, disagree and strongly disagree. The output result is also an indication of employee awareness of quality management being used in their respective organization.

Table 4.2: Question 2 output:

Customer satisfaction is amongst other implementation benefit envisaged

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	27	29.7	29.7	29.7
	agree	58	63.7	63.7	93.4
	undecided	2	2.2	2.2	95.6
	disagree	4	4.4	4.4	100
	total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 63.7% of respondents agreed, while 29.7% strongly agreed which totals to 93.4% (63.7% plus 29.7%). While other respondents have failed to recognize customer satisfaction benefits of the QM implementation amongst envisaged benefits. These respondents represent only 0% strongly disagreeing and 4.4% disagreeing thus 4.4 % (0% plus 4.4%). A total number of 2.2% of respondents were undecided.

Table 4.3: Question 3 output:

Customer satisfaction as a benefit is understood as a management intervention and action

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	20	22	22	22
	agree	57	62.6	62.6	84.6
	undecided	11	12.1	12.1	96.7
	disagree	3	3.3	3.3	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 62.6% of respondents agreed, while 22% strongly agreed which totals to 84.6% (62.6% plus 22%). While other respondents have failed to recognize customer satisfaction as benefits of the QM implementation. These respondents represent only 0% strongly disagreeing and 3.3% disagreeing thus 3.3% (0% plus 3.3%). A total number of 12.1% of respondents were undecided.

Table 4.4: Question 4 output:

Intervention such as investigation of customer complaints applied

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	36	39.6	39.6	39.6
	agree	48	52.7	52.7	92.3
	undecided	1	1.1	1.1	93.4
	disagree	6	6.6	6.6	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 52.7% of respondents agreed, while 39.6% strongly agreed which totals to 92.3% (52.7% plus 39.6%). While other respondents have failed to recognize the benefits of the QM implementation as a mean of addressing customer complaints. These respondents represent only 0% strongly disagreeing and 6.6% disagreeing thus 6.6% (6.6% plus 0%). A total number of 1.1% of respondents were undecided.

Table 4.5: Question 5 output:

Corrective action such as the implementation of measures to address customer complaints undertaken

		Frequency	Per cent	Valid Per cent	Cumulative Percent
Valid	strongly agree	15	16.5	16.5	16.5
	agree	54	59.3	59.3	75.8
	undecided	19	20.9	20.9	96.7
	strongly disagree	3	3.3	3.3	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 59.3% of respondents agreed, while 16.5% strongly agreed which totals to 75.8% (59.3% plus 16.5%). While other respondents have failed to agree with the statement, recognize the benefits of the QM implementation in helping organization implement corrective action to address customer complaints. These respondents represent only 3.3% strongly disagreeing and 0% disagreeing thus 3.3 % (3.3% plus 0%). A total number of 20.9% of respondents were undecided.

Table 4.6: Question 6 output:

Meeting customer requirements is top priority for all employee

		Frequency	Per cent	Valid Per cent	Cumulative Percent
Valid	strongly agree	14	15.4	15.4	15.4
	agree	65	71.4	71.4	86.8
	disagree	7	7.7	7.7	94.5
	strongly disagree	5	5.5	5.5	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 71.4% of respondents agreed, while 15.4% strongly agreed which totals to 86.8% (71.4% plus 15.4%). While other respondents have failed to recognize the benefits of the QM implementation in improving customer requirements. These respondents represent only 3.3% strongly disagreeing and 9.9% disagreeing thus 13.2 % (5.5% plus 7.7%). A total number of 0% of respondents were undecided.

Table 4.7: Question 7 output.

I'm aware of the customer complaints

		Frequency	Per cent	Valid cent	Per	Cumulative Percent
Valid	strongly agree	14	15.4	15.4		15.4
	agree	61	67	67		82.4
	undecided	5	5.5	5.5		87.9
	disagree	6	6.6	6.6		94.5
	strongly disagree	5	5.5	5.5		100
	Total	91	100	100		

The output analysis from the above statement reveals an overwhelming total number of 67% of respondents agreed, while 15.4% strongly agreed which totals to 82.4% (67% plus 15.4%). While other respondents have failed to recognize the benefits of the QM implementation in in helping employee being aware of customer complaints. These respondents represent only 3.3% strongly disagreeing and 9.9% disagreeing thus 12.1 %(5.5% plus 6.6%). A total number of 5.5% of respondents were undecided.

Table 4.8 Question 8 output:

Our customer concerns are always given a first priority

	Frequency	Per cent	Valid Per cent	Cumulative Percent
Valid strongly agree	22	24.2	24.2	24.2
agree	55	60.4	60.4	84.6
undecided	1	1.1	1.1	85.7
disagree	8	8.8	8.8	94.5
strongly disagree	5	5.5	5.5	100
Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 60.4% of respondents agreed, while 24.2% strongly agreed which totals to 84.6% (60.4% plus 24.2%). While other respondents have failed to recognize the benefits of the QM implementation in driving down the operational cost and improving business profitability benefits. These respondents represent only 5.5% strongly disagreeing and 8.8% disagreeing thus 14.3 % (5.5% plus 8.8%). A total number of 1.1% of respondents were undecided.

Table 4.9: Question 9 output.

Customer satisfaction among employees is high in this organization

		Frequency	Per cent	Valid Per cent	Cumulative Percent
Valid	strongly agree	13	14.3	14.3	14.3
	agree	58	63.7	63.7	78
	undecided	6	6.6	6.6	84.6
	disagree	10	11	11	95.6
	strongly disagree	4	4.4	4.4	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 63.7% of respondents agreed, while 14.3% strongly agreed which totals to 78% (63.7% plus 14.3%). While other respondents have are of the opinion that customer satisfaction among employee in their respective organization is low. These respondents represent only 4.4% strongly disagreeing and 11% disagreeing thus 15.4 % (4.4% plus 11%). A total number of 6.6% of respondents were undecided.

Table 4.10: Question 10 output.

Employees receive training on customer satisfaction regularly

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	15	16.5	16.5	16.5
	agree	62	68.1	68.1	84.6
	disagree	2	2.2	2.2	86.8
	strongly disagree	12	13.2	13.2	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 68.1% of respondents agreed, while 16.5% strongly agreed which totals to 84.6% (68.1% plus 16.5%). While other respondents disagree with a statement suggesting, that employee receive training regularly on customer satisfaction. These respondents represent only 13.2% strongly disagreeing and 2.2% disagreeing thus 15.4 % (13.2% plus 2.2%). A total number of 0% of respondents were undecided.

Table 4.11: Question 11 output:

Employees in this organization are highly motivated

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	19	20.9	20.9	20.9
	Agree	56	61.5	61.5	82.4
	Undecided	13	14.3	14.3	96.7
	Disagree	2	2.2	2.2	98.9
	strongly disagree	1	1.1	1.1	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 61.5% of respondents agreed, while 20.9% strongly agreed which totals to 82.4% (61.5% plus 20.9%). While other respondents have failed to agree with the statement suggesting that employee in their organization were highly motivated. These respondents represent only 1.1% strongly disagreeing and 2.2% disagreeing thus 3.3 % (2.2% plus 1.1%). A total number of 14.3% of respondents were undecided.

Table 4.12: Question 12 output.

I am aware that customer complaints are being used to improve process

		Frequency	Per cent	Valid Per cent	Cumulative Percent
Valid	strongly agree	19	20.9	20.9	20.9
	agree	49	53.8	53.8	74.7
	undecided	5	5.5	5.5	80.2
	disagree	4	4.4	4.4	84.6
	strongly disagree	14	15.4	15.4	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 53.8% of respondents agreed, while 20.9% strongly agreed which totals to 74.7% (53.8% plus 20.9%). While other respondents did not agree with the statement suggesting that customer complaints are used to improve process. These respondents represent only 15.4% strongly disagreeing and 4.4% disagreeing thus 19.8 % (4.4% plus 15.4%). A total number of 5.5% of respondents were undecided.

Table 4.13: Question 13 output.

Quality management improves management's understanding of customer's need

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	21	23.1	23.1	23.1
	agree	68	74.7	74.7	97.8
	undecided	1	1.1	1.1	98.9
	disagree	1	1.1	1.1	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 74.7% of respondents agreed, while 23.1% strongly agreed which totals to 97.8% (74.7% plus 23.1%). While other respondents have failed to recognize the benefits of the QM implementation in helping, understand customer needs. These respondents represent only 0% strongly disagreeing and 1.1% disagreeing thus 1.1 % (0% plus 1.1%). A total number of 1.1% of respondents were undecided.

Table 4.14 Question 14 output.

In my organization, the customer is king

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	28	30.8	30.8	30.8
	agree	48	52.7	52.7	83.5
	undecided	7	7.7	7.7	91.2
	disagree	3	3.3	3.3	94.5
	strongly disagree	5	5.5	5.5	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 52.7% of respondents agreed, while 30.8% strongly agreed which totals to 83.5% (52.7% plus 30.8%). While other respondents have failed to agree that, the customer is king in their organization. These respondents represent only 5.5% strongly disagreeing and 3.3% disagreeing thus 8.8 % (5.5% plus 3.3%). A total number of 7.7% of respondents were undecided.

Table 4.15 Question 15 output:

I received regular training on process improvement and quality awareness.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	32	35.2	35.2	35.2
	agree	38	41.8	41.8	76.9
	undecided	6	6.6	6.6	83.5
	disagree	10	11	11	94.5
	strongly disagree	5	5.5	5.5	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 41.8% of respondents agreed, while 35.2% strongly agreed which totals to 76.9% (41.8% plus 35.2%). While other respondents disagree to the statement suggesting that employee received regular training on customer awareness and process improvement. These respondents represent only 5.5% strongly disagreeing and 11% disagreeing thus 16.5% (5.5% plus 11%). A total number of 6.6% of respondents were undecided.

Table 4.16 Question 16 output:

Quality Management improves employees' ability to serve customers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	24	26.4	26.4	26.4
	agree	51	56	56	82.4
	undecided	14	15.4	15.4	97.8
	strongly disagree	2	2.2	2.2	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 56% of respondents agreed, while 26.4% strongly agreed which totals to 82.4% (56% plus 26.4%). While other respondents have failed to agreed that QM help employee improve their ability to serve customer. These respondents represent only 2.2% strongly disagreeing and 0% disagreeing thus 2.2 % (2.2% plus 0%). A total number of 15.4% of respondents were undecided.

Table 4.17 Question 17 output.

Customer's feedback mechanism encourages employee to provide suggestions for continuous improvement.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	12	13.2	13.2	13.2
	agree	72	79.1	79.1	92.3
	disagree	2	2.2	2.2	94.5
	strongly disagree	5	5.5	5.5	100.0
	Total	91	100.0	100.0	

The output analysis from the above statement reveals that there is an overwhelming total number of 79.1% of respondents agreed, while 13.2% strongly agreed which totals to 92.3% (79.1% plus 13.2%). While other respondents have failed to recognize the benefits of feedback mechanism as a means of providing employee with suggestion for continuous improvement. These respondents represent only 5.5% strongly disagreeing and 2.2% disagreeing thus 7.7 % (5.5% plus 2.2%). There was no recorded response for undecided respondents.

Table 4.18 Question 18 output.

Customer-based continuous improvement is useful in achieving customer satisfaction

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	16	17.6	17.6	17.6
	agree	66	72.5	72.5	90.1
	disagree	4	4.4	4.4	94.5
	strongly disagree	5	5.5	5.5	100.0
	Total	91	100.0	100.0	

The output analysis from the above statement reveals an overwhelming total number of 72.5% of respondents agreed, while 17.6% strongly agreed which totals to 90.1% (72.5% plus 17.6%). While other respondents have failed to recognize the benefits of customer based continuous improvement in achieving customer satisfaction. These respondents represent only 5.5% strongly disagreeing and 4.4% disagreeing thus 9.9 % (5.5% plus 4.4%). A total number of 13.2% of respondents were undecided.

Table 4.19: Question 19 output:

The feedback mechanism is used to monitor customer retention

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	13	14.3	14.3	14.3
	agree	72	79.1	79.1	93.4
	disagree	6	6.6	6.6	100
Total		91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 72% of respondents agreed, while 13% strongly agreed which totals to 93.4% (79.1 plus 14.3%). While other respondents have failed to agree with the statement that feedback, mechanism can be use to monitor customer retention. These respondents represent 0% strongly disagreeing and 6.6% disagreeing thus 6.6%. There was no respondents undecided thus a 0%.

Table 4.20: Question 20 output:

Customer satisfaction is essential to successful implementation of quality management

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	7	7.7	7.7	7.7
	Agree	69	75.8	75.8	83.5
	undecided	3	3.3	3.3	86.8
	disagree	7	7.7	7.7	94.5
	strongly disagree	5	5.5	5.5	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 75.8% of respondents agreed, while 7.7% strongly agreed which totals to 83.5% (75.8% plus 7.7%). While other respondents have failed to recognize the benefits of customer satisfaction as an essential element the QM implementation benefits. These respondents represent only 5.5% strongly disagreeing and 7.7% disagreeing thus 13.2 % (5.5% plus 7.7%). A total number of 3.3% of respondents were undecided.

Table 4.21: Question 21 output:

Quality management helps to achieve positive customer feedback

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	8	8.8	8.8	8.8
	agree	57	62.6	62.6	71.4
	undecided	13	14.3	14.3	85.7
	disagree	6	6.6	6.6	92.3
	strongly disagree	7	7.7	7.7	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 62.6% of respondents agreed, while 8.8% strongly agreed which totals to 71.4% (62.6% plus 8.8%). While other respondents have failed to recognize the benefits of the QM implementation in helping, achieve positive customer feedback. These respondents represent only 7.7% strongly disagreeing and 6.6% disagreeing thus 14.3 % (6.6% plus 7.7%). A total number of 14.3% of respondents were undecided.

Table 4.22: Question 22 output:

Good quality results contribute to operational cost savings in my working environment

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	2	2.2	2.2	2.2
	agree	65	71.4	71.4	73.6
	undecided	12	13.2	13.2	86.8
	disagree	9	9.9	9.9	96.7
	strongly disagree	3	3.3	3.3	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 71.4% of respondents agreed, while 2.2% strongly agreed which totals to 73.6% (71.4% plus 2.2%). While other respondents have failed to recognize the benefits of the QM implementation in driving down the operational cost and improving business profitability benefits. These respondents represent only 3.3% strongly disagreeing and 9.9% disagreeing thus 13.2 % (9.9% plus 3.3%). A total number of 13.2% of respondents were undecided.

Table 4.23: Question 23 output:

Quality is decreasing work defect in my working environment

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	10	11	11	11
	agree	57	62.6	62.6	73.6
	undecided	5	5.5	5.5	79.1
	disagree	8	8.8	8.8	87.9
	strongly disagree	11	12.1	12.1	100
	Total	91	100	100	

The output analysis from the above statement reveals an overwhelming total number of 62.6% of respondents agreed, while 11% strongly agreed which totals to 73.6% (62.6% plus 11%). While other respondents have failed to recognize the benefits of the QM implementation, benefits these respondents response represent only 12.1% strongly disagreeing and 8.8% disagreeing thus a total of 20.9%(12.1% plus 8.8%).

Table 4.24: Question 24 output:

Good customer satisfaction is responsible for the company market expansion and increased profit

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	strongly agree	26	28.6	28.6	28.6
	agree	54	59.3	59.3	87.9
	undecided	7	7.7	7.7	95.6
	disagree	2	2.2	2.2	97.8
	strongly disagree	2	2.2	2.2	100
	Total	91	100	100	

This question reveals that the QM helped achieve market expansion and increased profit in most participating companies that have implemented QM. A total number of 59.3% of respondents agreed, while 28.6% strongly agreed which totals to 87.9% (59.3% plus 28.6%). While other companies have failed to implement the QM to take advantage of the implementation, benefits these companies represent only 2.2% strongly disagreeing and 2.2% disagreeing thus a total of 4.4%(2.2% plus 2.2%).

4.3.4 Summary of data analysis

The current chapter analysed in details data collected using the data collection instrument from manufacturing organizations that have implemented the quality management in their organizations. The collected data was processed, interpreted and analysed using descriptive statistics in a way that assisted the researcher to answer the research questions.

The data collection instrument consisted of statements designed around the Likert four scale and the data for each question was presented on a table showing frequencies and probability and cumulative probability, this was immediately follow with a pie chart reflecting a graphical representation of the question.

The next chapter will focus on the discussion of findings

Chapter 5 Discussion of findings

5.1 Introduction

This chapter will conclude the study and provide guidelines on how the quality management, when effectively implemented within SA organizations, contributes to cost saving, improves customer satisfaction and helps install the culture of continuous improvement. Special attention is given to the research problem, as well as subsequent investigative questions and objectives. This chapter ends with a set of recommendations formulated to mitigate the research problem.

5.1.1 Research map so far

From the first chapter, an introduction and background of the proposed research was provided. The research process was explained in details, and the research problem stated. Also in chapter one, the research objectives were formulated as well as the research question. The chapter also provided an overview of the research design and methodology, including the data collection design and methodology. The first chapter ended with an overview of the chapters and content analysis.

Chapter 2 disclosed a theory gathered from various literatures source in connection with the research problem. The quality management, implementation benefits, as well as factors contributing to employee motivation, customer satisfaction and continuous improvement was unveiled.

The importance of training and the availability of systems within an organization to capture and manage customer complaints was covered. The importance of having a customer focus as part of an organization's mission, and employee willingness to learn and smile while serving the customer, was stressed. Various tools and techniques used to monitor customer satisfaction were also included in this chapter.

In Chapter 3, the limitations of the survey, the target population and the type of sampling method was reviewed. An overview of the questionnaire design provided as well as the reasons for using the Lickert scale. The chapter ended with an in depth illustration of the respondent's briefing and a list of questions posed in the survey. In Chapter 4, the data generated from the survey is analysed and interpreted.

5.2 Review of findings

As for the results obtained through this survey, the following analogies can be drawn from this research:

- The main reasons for adopting a quality management are to improve product/service quality, improve customer satisfaction, reduce cost and improve process.
- Receiving feedback on customer concerns is important for personnel involved in the product realization process.
- Employee involved in the process of addressing customer complaints should be involved in the product realization process.
- Meeting customer requirements is a priority in organizations that have implemented quality management.
- Customer feedback is a tool to maximize quality management, implementation benefits including customer satisfaction.
- Employees training should focus in customer requirements and the importance of always giving the customers what they want always.
- The adoption of the quality management, helps organizations that have implemented the system improve their processes, by implementing corrective action to address the causes of process inefficiencies.
- The quality management helps organizations that have implemented the system to reduce the cost of their products because it focuses on reducing quality defects (Merwe, 2007).
- Quality management helps organizations that have implemented the system retain their existing customer and increase their market share.
- The availability of the quality organizations understand customer needs.
- The requirements of quality management helps organizations to improve customer feedback and encourage employees to provide suggestions for improvement.
- The adoption of quality management helps organizations to improve their employee skills through regular training on customer awareness and process improvements.
- The quality management help organization to reduce operating cost and maximize customer satisfaction through the organizations' adoption of the culture of continuous improvement and implementation and use of corrective and preventative action to address customer complaints.

5.2.1 Analogy drawn from the literature review

The quality management is a quality improvement methodology that incorporates management philosophies and structure procedures in a well- structured fashion to optimise business activities,

thereby focusing on reduction and elimination in all processes. It involves top management and operating force working closely in the hunt for customer satisfaction, continuous improvement and financial return (Banuelas & Antony, 2003). Antony, (2008:274), found that currently companies across the world ranging from small businesses, private and public to large organizations have adopted this philosophy to continually improve their production processes by focusing on the following pillars:

- quality and customer focus
- customer satisfaction
- market share increase
- employees' morale and motivation
- organizational culture
- top management commitment to continuous improvement and customer satisfaction
- people development

5.2.2 Quality management for process improvement method

Process improvement is an aspect of organizational development quality management in which a series of actions taken by a process owner to identify, analyze and improve existing business processes within an organization to meet new goals and objectives (Merwe, 2007).

Such action should lead to increasing profits and performance companies' performance, reducing cost and accelerating process schedules. These actions often follow a specific methodology or strategy to encourage and ultimately create successful results. Problem solving and prevention methodology are usually more useful and compatible with the quality management and is generally accepted methods for continuous improvement (Mersha, 2000). The usage of quality management implementation is to support manufacturing processes and procedures to monitor records. Furthermore, process improvement may include the restructuring of company training programmes to increase their effectiveness. The process improvement is also a method to introduce process changes to improve the quality of a product or service, to better match customer and consumer needs (Antony, & Banuelas, 2002).

5.3 Success factors for QM usage

Companies embarking on the Quality management implementation programme have shown contrasting results due to the complexity of this methodology and therefore attention must focus to the key elements of QM implementation (Antony & Banuelas, 2002). According to McGraw-Hill, (1999) in companies that implemented the quality management there has been a substantial increase in quality and reduction in the number of defects as seen below in the survey result:

- 54% of responding companies saw a reduction in the defect rate after quality management registration
- 55% saw reduction in the cost of quality (scrap, reworks & inspection)
- As part of the same survey, conducted by the same author it was evident that the implementation of the quality management survey resulted in an increase of sales and market share as seen below:
- 15.5% respondents said most significant benefits were improved customer demand/increased market share.
- 53.8% said there was some improvement in market share due to quality management implementation , and
- 52.8% said some improvement in sales due to quality management
- The main factors behind the above success are the following:
- management involvement and commitment to customer satisfaction,
- highest priority given to customer complaints,
- training of employees,
- putting customer first,
- understand customer requirements,
- including quality management with a business strategy,
- including quality management with human resources,
- using quality management as a tool to better serve the customer, and
- imposing quality management on the supplier as requirement

5.3.1 Research problem revisited

In this section, the researcher is mitigating the research problem taking into consideration the literature review and data analysis as follows:

- The top management of SA business organizations should be educated on the quality management principles needed for the preparation of their organization on the brink of adopting this concept. This QM should be driven by the organization's desire to improve their processes and improve their customer satisfaction. The organization should not be adopting the QM because it is the requirement of certain customers (Antony, & Banuelas, 2002).
- The leadership of SA business organizations should focused on long terms goals while implementing the QM. Instead, they should be aware that the quality management implementation requires a substantial investment and positive results only appear after a long period. It is an ongoing process improvement trip.

-
- The leadership of SA business organizations should focus on improving their processes and improve their ability in meeting the customer's requirements.
 - The top management of SA organizations should create an environment, conducive to information sharing on matters related to customer feedback.
 - Top management in South African organizations should ensure that employees participate directly in customer-related quality concerns.
 - All customer complaints to be managed with urgency
 - The implementation of quality management in SA organizations contributes to their success by identifying best practices and thus helping them avoid same mistakes in the future and improve customer satisfaction.
 - To ensure that SA enterprises meet the requirements of the quality management, such as maximizing customer satisfaction amongst other envisaged benefits. The organizational infrastructure and leadership should appoint key personnel according to the following criteria:
 - The quality management champion per business unit these person reports generally to the quality manager.
 - Key personnel responsible for the implementation and management of QM should be formally trained in the QM standard
 - Key personnel appointed with responsibility of deploying, training, mentoring and evaluating results of quality management should be qualified.
 -

In order to maximize customer satisfaction, improved processes and reduce production costs, SA organizations should bring their suppliers in line with the dynamic of culture change. That comes along with quality management and a criteria selection of suppliers. Based on an acceptable quality management performance and capability level, this ensures that only those with a quality management culture can be part of the value chain and therefore deliver raw materials. This is true because the chain form with suppliers, producers of goods and services, plus customers is only as strong as the weakest link within the system (Heizer, & Render, 2011).

5.4 Conclusion

This research task has led to many interesting and important findings. The research found that majority of the participating companies implemented quality management. These companies did so because they anticipated some implementation benefits. These benefits include customer satisfaction, continuous improvement and cost saving.

Other findings include an organization's ability to maximize implementation benefit through active involvement of top management. This means that, for example, customer satisfaction, continuous improvement and increase of the market share are the main benefits sought. The involvement of employees in the quality process is important in resolving customer complaints.

The role of employee is crucial in achieving customer satisfaction as they are responsible for the transformation of information, material and other resources into goods and services requested by their respective customer. For this reason, employees should be empowered by selling them the idea that the customer is king because he pays the bills and as such, each employee should be highly motivated and work toward achieving the goal of customer satisfaction, and understanding of customer requirements and needs (Antony, & Banuelas, 2002).

Furthermore, the availability of a corrective and preventative action system to address customer complaints was discovered to be another important benefit of QM. Some respondents noted that by involving employees in the process, customer complaints were resolved quicker in a manner that is motivating and rewarding for employees, customers and the organization.

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Appendices

Appendix A. Data collection instrument

Scoring: Strongly Agree = 1 Agree =2 Undecided = 3 Disagree = 4Strongly Disagree= 5						
<i>Please tick the appropriate box as shown in the questionnaire below by making a cross in the box that is most applicable to your organization. This questionnaire was designed to understand the quality management implementation benefit with customer satisfaction as a measurement variable.</i>						
Questions Number	Description of Question	5	4	3	2	1
1	Quality management is implemented in this organization					
2	Customer satisfaction is amongst other implementation benefits envisaged					
3	Customer satisfaction as a benefit is understood as a management intervention and action					
4	Intervention such as investigation of customer complaints is applied					
5	Corrective action such as the implementation of measures to address customer complaints is undertaken					
6	Meeting customer requirements is top priority for all employees					
7	Am aware of the customer complaints					
8	Our customer concerns are always given first priority					
9	Customer satisfaction among employees is rated highly in our organization					
10	Am aware that customer complaints are being used to improve processes					
11	Employees receive training on customer satisfaction regularly					

12	Quality management improves management understanding of customer's need					
13	Employees in my organization are highly motivated					
14	In my organization, the customer is king					
15	I received regular training on process improvement and quality awareness.					
16	Quality management improves employee ability to serve customers					
17	Customer's feedback mechanism encourages employee to provide suggestions for continuous improvement.					
18	Customer-based continuous improvement is useful in achieving customer satisfaction					
19	The feedback mechanism is used to monitor customer retention					
20	Customer satisfaction is essential to successful implementation of quality management					
21	Quality management helps to achieve positive customer feedback					
22	Good quality results contribute to operational cost savings in my working environment					
23	Quality is decreasing work defects in my working environment					
24	Good customer satisfaction is responsible for the company market expansion and increased profit					