Assessing quality management systems of SMME’s in the manufacturing sector

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MBA THESIS DECLARATION

In accordance with Rule G4.6.3i, I Shawn Noel Prince declare that the below-mentioned thesis is my own work, that any other similar work has been appropriately referenced and that it has not previously been submitted for assessment to another university or for any other qualification.

**SUBJECT:** Research Methodology

**THESIS TITLE:** Assessing quality management systems of SMME’s in the manufacturing sector

**PROMOTER:** Dr. Neil Trollip

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SYNOPSES

This dissertation summarises an analysis and assessment of the application of Quality Management Systems (QMS) by Small, Medium and Micro Enterprises (SMMEs), in the Engineering Manufacturing Sector of the greater Cape Town Metropolitan area. An outline of the existing hypothesis derived from previous international SMME studies related to the adoption of QMS by SMME’s, the management’s understanding of quality principles, the potential business benefits of QMS and the reasons for implementing Quality Management systems are given as background to the study.

The dissertation includes a discussion of literature on the state of QMS in SMMEs, in particular, recent international research literature hypothesising that SMME management lack essential QMS knowledge and that, in general, most SMME’s do not have a QMS and that SMMEs only implement a QMS as a result of contractual pressures / requirements.

Also reported are the results and findings of a survey conducted to test the validity of the existing hypotheses amongst a representative sample of Engineering Manufacturing SMMEs registered with the Cape Regional Chamber of Commerce and Industry in the Western Cape.

Results of the survey indicate that almost 90%, of the companies surveyed had some type of Quality management System, the only two companies that reported not having a QMS, were companies classified as “Micro”, in terms of the National Small business Act. Analysis of the response to the survey concludes that, in general, more than 80% of Engineering SMMEs in the Manufacturing Sector have adopted a QMS based on ISO 9001 and that, on average, their management have a medium to high level of understanding of QMS and the associated business benefits.

It is also apparent from survey responses, that companies classified as “Micro” in terms of the Small Business Act of 1996, do not see the need for a formal QM system as the owners of these companies consider them too small for a formal QMS. Instead they take direct ownership of their service and product quality in the face of the customer.
The survey results highlighted that a major obstacle to wider adoption of QM systems by SMMEs is the apparent high costs associated with implementing the QMS and the effort required to maintain such a system.

Another major obstacle highlighted is the fact that none of the respondents received any guidance or technical implementation support (i.e. non-financial support) from industry bodies, the South African Quality Institute or the South African Bureau of Standards, with respect to the QMS requirements for implementation or maintenance of the system.

Only thirty three percent (33%) of the respondents receive financial support for implementing a QMS, hence the fact that Implementation Costs is reported as the second biggest reason why SMMEs have not broadly adopted QMS as part of their management systems.

The hypothesis that SMMEs generally do not have a QMS and that their management do not understand the associated benefits is thus proved invalid for Engineering SMME companies in the Manufacturing Sector of the economy. The survey results indicated that this hypothesis is possibly only valid for Engineering companies classified as “Micro” in terms of the Small Business Act of 1996.

Results from this survey further indicate that sixty seven percent (67%) of companies implemented a QMS voluntarily, therefore disproving the hypotheses that SMMEs only implement a QMS due to contractual or customer pressures.

From the results of this survey it is apparent that SMMEs in different sectors of the economy may adopt a QMS for different reasons and that the level and support required by SMMEs for implementing a QMS would also be different.

It is thus recommended that a broader study be undertaken to determine if the results of this survey are general trends among SMMEs in all sectors of the economy, or if it is only applicable to Engineering SMMEs in the Manufacturing Sector.
ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to the following individuals, without who this research project would not have been accomplished:

- My wife, Chantel, for her motivation and support throughout my MBA studies,
- Dr. Neil Trollip, my supervisor and promoter, for his guidance and time throughout this research project,
- The MBA staff of Nelson Mandela Metropolitan University, for all the administrative support during my MBA studies,
- All the companies who responded to the survey, their participation is greatly appreciated.
ABBREVIATIONS

GDP – Gross Domestic Product

ISO – International Standards Organisation


PIMS – American Strategic Planning Institute’s, Profit Impact of Market Strategy

QM – Quality Management

QMS – Quality Management System

SABS – South African Bureau of Standards

SAQI – South African Quality Institute


TQM – Total Quality Management
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CHAPTER 1 – INTRODUCTION

1.1 BACKGROUND TO THE RESEARCH

It is estimated that Small, Medium and Micro Enterprises (SMMEs) contribute between fifty-two (52%) and fifty-seven (57%) percent of South Africa’s gross domestic product (Falkena, Abedian, von Blottnitz, Coovadia, Davel, Madungandaba, Masilela & Rees, 2001: 42). Falkena’s report notes that although the statistics are inaccurate due to the reliability of the data, it as apparent from statistical approximates that SMME’s are clearly instrumental in driving the South African economy in terms of value added, as well as in employment (Falkena et al, 2001: 43). Table 1 summarises the different indicators for the size of the SMME sector in the South African Economy.

Table 1 – Summary of the different indicators for size of SMME sector.

<table>
<thead>
<tr>
<th>Source</th>
<th>Survivalist</th>
<th>Micro</th>
<th>Very small</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ntsika 1997 totals (as above)</td>
<td>184 400</td>
<td>466 100</td>
<td>180 000</td>
<td>58 900</td>
<td>11 322</td>
<td>6 017</td>
<td>906 700</td>
</tr>
<tr>
<td>Business Partners20</td>
<td>2.3 million</td>
<td>600 000</td>
<td>35 000</td>
<td>Not reported</td>
<td></td>
<td></td>
<td>2.9 million</td>
</tr>
<tr>
<td>Management Sciences Group Survey, 1999</td>
<td>960 740</td>
<td>862 580</td>
<td>445 880</td>
<td>N/A</td>
<td></td>
<td></td>
<td>2.3 million</td>
</tr>
<tr>
<td>Escorr Survey, 1999</td>
<td>000 000+</td>
<td>‘in-home businesses’, total 3 million if one includes small/emergent/established farmers</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>Statistics SA, 200021</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 628 797</td>
</tr>
</tbody>
</table>

20 Per presentation made to DTI’s ‘SME Reference Group’.

(Source: Falkena et al, 2001)

From the data collect in Falkena’s (Falkena et al, 2001: 41) review, it can be established that the Western Cape comprises the second largest population of SMMEs in the country, with approximately fifteen percent (15%) of the countries SMMEs operating in the province (Figure 1). Based on these statistics, it is apparent that SMMEs are widely recognized as a potential engine for growth and job creation in the South African economy and hence the Western Cape economy.
Figure 1: Estimated regional SMME % split (SMME’s with turnover between R150k to R5m).

(Source: Falkena et al., 2001)

A major cornerstone of the South African Trade and Industrial policy is the promotion of SMMEs as a vehicle to achieve economic growth through competitiveness, employment generation and income redistribution as a result of specific government policy interventions associated with access to finance and legislative support (Berry A, von Blottniz M, Casim R, Kesper A, Rajaratnam B and van Seventer D, 2002).

Marketplace demands on the products and services produced by SMME’s, in terms of quality and conformance, are thus no different to that demanded from large organizations. The ability of SMMEs to understand the reasoning behind these quality requirements and their ability to meet these quality requirements are generally severely constrained by the knowledge and experience of the owners of these SMMEs and the support provided by government institutions and formal sector businesses. In larger organizations, it is widely recognised that there is a strong correlation between profitability of a business and the quality of its service or product as perceived by its customers (Building Business: 2007).

The American Strategic Planning Institute’s Profit Impact of Market Strategy (PIMS) study identified this correlation in its research as summarized by Building Business (2007) in Figure 2.
Figure 2: Customer Perceived Relative Quality vs. Market Share Gain.

Some commentators (Trollip: 2007, Jacobs: 2007, Kardocs: 2006 and Goetsch & Davids: 2002) note that often companies simply implement a quality management system to meet contractual requirements and become a supplier, rather than to integrate quality into their business strategies and thus derive the long-term financial benefits as noted by the results of the PIMS studies (Building Business: 2007) and in quality management publications by Mitra (1993) and Goetsch et al (2002).

However, in SMMEs this correlation between quality, competitiveness, market share and profitability is not clearly understood. A recent review by the South African Quality Institute (SAQI) confirmed that awareness about quality and its business impact was particularly low amongst SMMEs (Radly R, Harley G, Russel A, Liddy H, Inglis B, Sandars G, Owen J and Reynolds F. 2001: 242).

It is for the above reasons that the application of Quality Management Systems by SMMEs needs to be fully investigated, analysed and understood. The results of this research can be used to assist with the development of appropriate support guidelines and programs (financial and non-financial) to ensure that SMME’s utilise QMS to not only meet contractual requirements, but also to improve their profitability and market share, and ultimately to strengthen the South African economy.
1.2 PURPOSE AND SIGNIFICANCE OF THIS RESEARCH

SAQI has been created to promote quality awareness in South Africa, to influence the general public to expect quality products and services, and to spontaneously include quality in all their activities (Radly R et al 2001: 235).

However, from the review it is very apparent that the management of SMME companies have a very limited understanding of quality and hence quality management and its business benefits (Radly R et al 2001: 242).

The research undertaken in this paper intends to investigate, analyse and comment on the following key hypotheses derived from previous SMME studies conducted both locally and internationally. The survey will be confined to Engineering SMMEs in the Manufacturing Sector in the greater Cape Town Metropolitan area.

1.2.1 Hypothesis 1:

Based on the data from SAQI research (Radly et al 2001) and research by Kardocsa (2006) and Xydias-Lobo M. & Jones J.T. (2001), it can be hypothesised that very few SMMEs have a QMS in place, or actually know how to implement and maintain a QMS.

1.2.2 Hypothesis 2:

Based on the SAQI findings that few SMME managers have a good understanding of quality (Radly et al 2001: 242), the PIMS study linking customer perceived quality to market share and hence profitability (Building Business: 2007), it can be hypothesised that management within SMMEs have very little understanding of the requirements for a QMS and the business benefits of implementing a QMS.
1.2.3 **Hypothesis 3:**

Based on the study by Kadocska (2006), inferences by Goetsch et al (2002: 285), comments by Jacobs (2007) and lecture notes by Trollip (2007) it can be hypothesised that SMMEs only implement quality management systems due to contractual or customer requirements.

This dissertation will assess and evaluate the validity of the above hypotheses within Engineering SMMEs in the Manufacturing Sector of the greater Cape Town metropolitan area. It will attempt to clarify if the hypotheses are generally applicable to all SMMEs or are only applicable to SMMEs in certain sectors of the economy. Additionally this research will attempt to understand some of the difficulties faced by SMMEs when implementing QM systems.

Since the SMME sector represents a vital sector of the South African economy, its survival and long-term competitiveness and sustainability is of utmost importance. There thus exists a need for research to determine the current state of quality management within the SMME sector and to develop guidelines on how SMME’s can implement quality management systems that not only enhances product quality but also makes the companies more profitable and competitive.

The results of this research could lead to further research for the development of guideline documents that can be used by SMMEs in all sector of the economy and thus enhance the performance and competitiveness of the South African economy as a whole.

1.3 **DELIMITATION OF THE RESEARCH**

The research will be confined to testing the three main hypotheses within Engineering SMMEs in the Manufacturing Sector in the greater Cape Town Metropolitan area.
1.4 RESEARCH OBJECTIVES

The objectives of this research are to test the three hypotheses that are derived from international research, published books and papers as well as academic notes as defined in Section 1.2 of this chapter.

1.4.1 Primary Objectives

The primary objective of this research is to gain a better understanding as to why and how SMMEs decide to implement a Quality Management System.

1.4.2 Secondary Objectives

In order to develop a research strategy to deal with and assess the three main hypotheses, the following sub-problems have been identified.

- What is the current state of QMS within Engineering SMMEs in the Manufacturing sector? (i.e. does the SMME have a QMS in place)

- Why do SMMEs decided to implement a QMS?

- What QMS is generally in use within the SMMEs?

- What is the current level of awareness among the SMME management and staff, with respect to QMS and the derived business benefits?

- Is there a link between the SMMEs QMS and its overall business strategy?

- How was the QMS implemented (i.e. in-house, external consultants, third-party organisation)?

- What are the challenges faced by Engineering SMMEs in the Manufacturing sector when they decide to implement a QM system?
CHAPTER 2 – RESEARCH METHODOLOGY

This thesis is an exploratory study into the extent to which Engineering SMMEs in the Manufacturing Sector of the South African economy implement QM systems. The intention is that the results of this study could lead, through continuous and more comprehensive studies, to better government and institutional support for the improvement of quality within SMMEs, the adoption of QMS by SMMEs and hence result in an overall improvement in SMME competitiveness which will facilitate and support overall stronger economic growth in South Africa.

The four phases of the research involves a review of available literature related to QMS and SMMEs, development of a research questionnaire, sample selection and data collection and finally, data analysis and results reporting.

2.1 LITERATURE REVIEW

The study will use secondary data, in the form of books, published and unpublished papers, the Internet, publications, academic journals and other publications. The focus area of the literature review will be on the impact of quality management on the overall business performance of companies in general, as well as a review of international and national research findings related to the application of QMS within SMMEs.

It will also provide a literature review of the research into the economic impact of SMMEs in the South African economy and will define their importance in terms of contributions to Gross Domestic Product and potential for creating jobs.
2.2 QUESTIONNAIRE DEVELOPMENT

A structured questionnaire (Appendix B) was specifically developed to gather data applicable to why and how SMMEs implement quality management systems as well as to assess the level of management knowledge related to QM and the link between QMS and the SMME’s business strategy and performance.

Additionally, the questionnaire contained questions that try to identify the support, if any, that the SMMEs had received from institutions like the Department of Trade and Industry, South African Quality Institute, South African Bureau of Standards and industry bodies during the implementation of their QM systems.

As a final point, the questionnaire tried to gather data related to what other challenges are faced by SMMEs when trying to implement a Quality Management System.

The questions were mainly structured around the Primary and Secondary objectives as defined in Section 1.4 of Chapter 1.

2.3 SAMPLE GROUP AND DATA COLLECTION

The sample group comprised a statistically representative sample selected from the list of Engineering SMME’s registered under the Manufacturing Sector with the Cape Regional Chamber of Commerce and Industry, in the Western Cape. Thirty companies (30) were randomly selected and survey forms were either hand delivered or emailed to each company after telephonically discussing the survey with the company quality representative, or the person responsible for quality.

Collection of primary survey data was via a structured questionnaire, containing the following main sections:
• Background and Privacy statement
• General Company Information (i.e. no of employees, management and organisational structure)
• Quality Management System Information
• Level of Integration of the Quality Management System
• Level of QMS support received from Industry bodies or other institutions.
• Challenges that impact on the SMME’s decision to implement a QMS

The survey questionnaires were completed by either the owner or quality manager/representative of each company and returned by fax or email.

2.4 DATA ANALYSIS AND RESULTS

The collected data was tabulated in an Excel spreadsheet and analyzed using standard statistical methods. Results were presented in formats that helped to draw conclusions and formulate recommendations that could be utilised for future research.
CHAPTER 3 – LITERATURE REVIEW

3.1 BENEFITS OF A QUALITY MANAGEMENT SYSTEM

The main objective of any company, whether large, small or micro, is to provide an acceptable rate of return on its investment in capital and labour (i.e. a profit). In most companies and in particular in small medium and micro organisations, this financial objective is measured in the short term (i.e. annually).

In “Fundamentals of Quality Control and Improvement” (Mitra 1993: 12-13) it is clearly stated that improvements derived from implementing a QMS cannot be realised immediately. However, the implementation of a QMS leads to a long-term return on investment that is not only higher but also more sustainable. This discrepancy between the short-term financial measurement and the long-term cost savings associated with implementing a QMS, leads senior staff in most companies to doubt the financial benefits that can be derived by implementing a QSM. Ross and Perry (2000: 361) also noted that management is generally confused about the trade-off between cost and quality.

Mitra (1993: 13) notes that implementing a QMS results in:

- Improvements in product and service quality
- Production system improvements
- Productivity improvements
- Cost reductions in material and labour
- Reduction in cycle times and improved delivery
- Maintaining an “improvement” culture
3.1.1 Quality and Productivity

Mitra (1993: 30) states that making a product right the first time lowers manufacturing costs and improves productivity. As quality results in a reduction of reworks and replacement parts, personnel have more time available to manufacture additional defect-free units and hence increase overall output, resulting in an improvement in productivity.

Furthermore, quality improvements resulting from implementation of a QMS improve process quality leading to more efficient and simplified operations, which lead to further improvements in productivity.

Mitra (1993: 30-31) also notes that improvements in quality also results in an increase in market share and an improved competitive position due to an increase in customer satisfaction levels and an improved cost/price ratio.

The association between improving quality within a company and the resultant cost and market share impact is portrayed as a flow diagram in Figure 3 (Mitra 1993).

**Figure 3: Effect of Quality on productivity and profitability.**
Ross et al (2000) comments that the cost of poor quality and the potential for improvements within companies are significant and estimates that the cost of poor quality ranges between twenty and thirty percent (20% and 30%) of sales. The potential for profit improvements through the implementation of QMS are thus very significant for most companies.

3.2 BENEFITS OF ISO 9000 CERTIFICATION

Goetsch et al (2002: 285) comments that the market place is increasingly becoming a place where a recognised quality management system is becoming the “admission ticket” to doing business. These authors also comment that not all the pressure to conform to ISO is coming from the customer but that companies also face internal management pressures for implementing sound quality management systems (Goetsch et al: 2002). The QM systems are implemented specifically to improve the company’s long-term profitability, competitiveness and sustainability as described Mitra (1993) and summarised in Section 3.1 of this chapter. In general, ISO 9000 is currently seen as a management tool for continuously enhancing productivity and competitiveness and thus increasing company profits.

As noted by Mitra (1993), Goetsch et al (2002: 286) also see a lack of understanding and defining the benefits of implementing the quality management system as an obstacle to wider adoption of ISO certification. However with the ISO certification process comes the added obstacle of the perceived high cost of implementing and maintaining the system. Goetsch et al (2002) however reports that a survey conducted in the United States and Canada, by Deloitte and Touche, found that the investment required for certification is typically repaid within three years. This survey also found that most companies see the following benefits from ISO 9000 certification (Goetsch et al: 2002):

- Better documentation
- Positive improvement culture
• Greater quality awareness amongst staff
• Higher perceived quality, which was listed as most significant benefit

Regarding implementation costs, Goetsch et al (2002) notes that most companies will want to minimise the cost of the QMS and at the same time maximise the benefits that can be derived from operating as an ISO certified company. These authors also recommend that companies carefully evaluate the following areas for potential implementation cost savings (Goetsch et al, 2002: 292):

• Use of consultant, are they really required?
• Development of the system in-house
• Development of the QMS documentation in-house
• Survey a number of Certification bodies for price and quality of service before accepting any offers
• Timeline for implementation

Goetsch et al (2002) additionally lists the following four major reasons for companies failing to secure certification:

• Misinterpreting or misunderstanding the ISO 9000 requirements
• Over-kill of the QMS
• Overdevelopment of the QMS documentation
• Underestimating the amount or work, resources and time that are needed for implementation and registration.

It is advisable for any company planning to implement an ISO 9000 certified QMS to focus on cost reduction areas as well as take due consideration of the above pitfalls during the entire ISO 9000 implementation process.
3.3 SMME QMS RELATED LITERATURE

There appears to be very limited research regarding the reasons why and how SMMEs decide to adopt a formal Quality Management System. However some SMME industry studies support the hypothesis that SMMEs mainly adopt a formal system due to either contractual requirements or insistence by key customers (Trollip: 2007, Jacobs: 2007, Kadocsza: 2006 and Goetsch: 2002).

Xydias-Lobo and Jones (2001) noted that there is little evidence to substantiate the associated benefits to SMMEs for implementing a QMS. This is mainly due to the limited availability of research in this area as well as the perceived prohibitive implementation costs, increased bureaucracy and complexity of the different QMS systems (e.g. TQM versus ISO 9000).

Xydias-Lobo et al (2001) also noted that international empirical research into the rate of success of QMS implementation is largely inadequate. Past research indicated that only a tiny minority of SMMEs in the UK had registered for ISO 9000 and that the majority of these firms found that the benefits of ISO certification exceeded the cost (Xydias-Lobo et al: 2001).

These findings are supported by research conducted by Kadocsza (2006) into competitiveness factors of SMMEs in Hungary that found that only fifteen percent (15%) of SMMEs had an ISO certified QMS and that the motivation for ISO certification was mainly driven by the company’s intentions to become a supplier (i.e. customer or contract related).

3.4 COMPANY COMPETITIVENESS RELATED LITERATURE

The data collected during the PIMS study clearly indicate a strong relationship between relative quality and profitability, noting that if a company has a high level of perceived quality it is capable of building and expanding market share and hence profitability (Building Business: 2007 and Trollip: 2007).
The importance of SMMEs in developing economies cannot be underestimated and this is supported by the findings of Bozkurt (1997) and Falkena et al (2001). Hence, failed attempts by SMMEs to adequately implement QM systems would ultimately have a negative impact on the overall economy and job creation.

The results of a study into competition and productivity growth in South Africa indicated a very strongly positive effect of product market competition on productivity growth and notes that this competition will only be healthy to the economy if the SMME sector also contributes positively (Aghion 2006: 17). This means that SMMEs have to be active competitors in the economy at large, if they want to increase their productivity.

A review conducted by SAQI clearly indicates some major shortcomings with respect to the awareness of quality and hence quality management systems, in the SMME sector (Radly R et al 2001: 242). If this situation is not addressed adequately, it will have a negative impact SMME productivity, competitiveness, job creation and the economy as a whole.

According to Xydias-Lobo et al (2001), the introduction of quality management systems appear to be higher amongst SMMEs that are growing more rapidly and the results of the research indicates a positive correlation between implementation of a QMS and the rate of growth of SMMEs in the Australian manufacturing sector.

3.5 LITERATURE REVIEW SUMMARY

From the above literature review it can be summarised that in general, a limited numbers of SMMEs have adopted formal QM systems. This data clearly supports Hypothesis No. 1, as defined in Section 1.4 of Chapter 1.

It is also apparent from the data in the literature review that companies in general and SMMEs in particular could potentially benefit if they implement a
Quality Management system such as ISO9001. Implementing a QMS would have a direct impact of their profitability as well as their competitiveness and long-term sustainability.

It also shows that there are shortcomings in Government’s strategy for supporting SMMEs and that, if these shortcomings are not overcome, they will have a negative impact on the performance and growth of SMMEs.

There are however numerous obstacles to deciding on and implementing a QMS, with the main hurdle appearing to be the understanding of the QMS requirements and the costs associated with implementing and maintaining the system. This data clearly supports Hypothesis No. 2, as defined in Section 1.4 of Chapter 1.

The literature review also shows that, in general, an SMME’s motivation for becoming ISO certified appear to be mainly driven by the SMME’s intentions to become a supplier (i.e. customer or contract related). This data clearly supports Hypothesis No. 3, as defined in Section 1.4 of Chapter 1.

What is also apparent in the literature review is the lack of research in the field of quality management within SMMEs, and in particular SMMEs in the South African economy.
CHAPTER 4 – REVIEW OF SMMEs IN THE SOUTH AFRICAN ECONOMY

Due to various discrepancies in the categorisation of SMMEs, the definitions as described in Table 2 below are applied to SMMEs throughout this report:

Table 2 – Definitions of SMMEs as per National Small Business Act of 1996.

<table>
<thead>
<tr>
<th>Enterprise Size</th>
<th>Number of employees</th>
<th>Annual turnover</th>
<th>Gross assets, excluding fixed property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Fewer than 100 to 200, depending on industry</td>
<td>Less than R4 million to R50 million, depending upon industry</td>
<td>Less than R2 million to R18 million, depending on industry</td>
</tr>
<tr>
<td>Small</td>
<td>Fewer than 50</td>
<td>Less than R2 million to R25 million, depending on industry</td>
<td>Less than R2 million to R4.5 million, depending on industry</td>
</tr>
<tr>
<td>Very small</td>
<td>Fewer than 10 to 20, depending on industry</td>
<td>Less than R200 000 to R500 000, depending on industry</td>
<td>Less than R150 000 to R500 000, depending on industry</td>
</tr>
<tr>
<td>Micro</td>
<td>Fewer than 5</td>
<td>Less than R150 000</td>
<td>Less than R100 000</td>
</tr>
</tbody>
</table>

(Source: adapted from Falkena et al, 2001)

Falkena et al (2001) notes that more than ninety percent (90%) of businesses in South Africa fall within the above categories for SMMEs and, as shown in Figure 4, most SMMEs are clustered in the Agricultural, Retail and Manufacturing sectors of the economy.

Figure 4: Sectoral Split of SMMEs in South Africa.

(Source: adapted from Falkena et al, 2001)
Falkena et al (2001) also found that SMMEs account for between 50% and 57% of South Africa’s GDP, of which the Western Cape contributes approximately fifteen percent (15%) and also noted that SMME distribution in the country generally followed this GDP distribution.

Falkena et al (2001) furthermore warns that the fact that ten percent (10%) of large companies contribute to almost 50% of GDP, should not distract from the organic linkages between SMMEs and large companies, as all large companies rely to some extent on SMME performance for supply of good and services. These authors also note, however, that although SMMEs contribute significantly to the country’s GDP, this is not reflected in the support provided to SMMEs by government (Falkena et al: 2001).

With respect to employment, Falkena et al (2001) estimates that SMMEs contribute approximately sixty two percent (62%) of all new jobs created in the economy. Table 3 summarises employment data for the year 1997. This data is also supported by Berry et al’s (2002) findings that, in 2000, large companies employed only about thirty three percent (33%) of workers, meaning the balance of about sixty six percent (66%) was employed by companies in the SMME sector of the Economy.

**Table 3 – Employment and unemployment in South Africa in 1997.**

<table>
<thead>
<tr>
<th>Category</th>
<th>No of jobs</th>
<th>% of economically active population</th>
<th>% of jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment in large-scale firms</td>
<td>3 097 000</td>
<td>25%</td>
<td>39%</td>
</tr>
<tr>
<td>Employment in formal SME’s</td>
<td>3 135 000</td>
<td>25%</td>
<td>39%</td>
</tr>
<tr>
<td>Employment in informal sector</td>
<td>1 052 000</td>
<td>8%</td>
<td>13%</td>
</tr>
<tr>
<td>Employment in domestic service</td>
<td>788 000</td>
<td>6%</td>
<td>10%</td>
</tr>
<tr>
<td>Total employed</td>
<td>8 072 000</td>
<td>64%</td>
<td>100%</td>
</tr>
<tr>
<td>Total unemployed</td>
<td>4 551 000</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>Economically active (extended definition)</td>
<td>12 623 000</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Population aged 15-65 years</td>
<td>22 818 000</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

(Source: adapted from Falkena et al, 2001)

The above is also supported by international research conducted by Kesper (2000), who notes that in 1985, OCED countries concluded that there was a greater concentration of workers in SMME companies than in large concerns.
Berry et al (2002) further notes that SMMEs are generally active in production activities that are labour intensive and hence have a higher labour absorptive capacity that large organisation.

Berry et al (2002) also noted that although SMMEs have a supplier role to fulfil, they also have a broader economic impact in terms of demand for goods, which in turn stimulates development of additional SMME suppliers.

Berry et al (2002) comments that the development and support of the SMME sector is not only desirable due to the economic impact it may have, but it possibly also holds the key to South Africa’s success in confronting its unemployment challenges. They view SMMEs as contributors to improved productivity but also with significant interests in income distribution within the South African economy (Berry et al 2002).

Both Berry et al (2002) and Falkena et al (2001) have acknowledged that accurate information with respect to South Africa’s SMME sector is severely lacking. Berry et al’s (2002) research further noted that the SA government’s support programs for SMMEs were inadequate as fifty seven percent (57%) of SMMEs in Gauteng and seventy percent (70%) of SMMEs in the Western Cape had never had contact with or heard of any government support programs or institutions.

The findings of Berry et al (2002) are supported by a recent SMME survey conducted by World Wide Works (SME Survey: 2006), which found that there was a general decline in the competiveness of SMMEs due to issues around access to finance and skills. This survey also found that government support for SMME development had not translated into tangible benefits for SMMEs to access resources, both financial and skills related or improved SMME competitiveness (SME Survey: 2006).

Table 4 – Manufacturing in the Western Cape.

<table>
<thead>
<tr>
<th>Region/Province</th>
<th>Establishments</th>
<th>% of SA</th>
<th>Total Employment</th>
<th>% of SA</th>
<th>Gross Output [000 R]</th>
<th>% of SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Cape</td>
<td>4 146</td>
<td>19%</td>
<td>236 199</td>
<td>18%</td>
<td>31 255 137</td>
<td>15%</td>
</tr>
<tr>
<td>Kwazulu-Natal</td>
<td>4 383</td>
<td>20%</td>
<td>318 091</td>
<td>23%</td>
<td>46 104 144</td>
<td>22%</td>
</tr>
<tr>
<td>Total South Africa</td>
<td>22 354</td>
<td>100%</td>
<td>1 344 966</td>
<td>100%</td>
<td>210 771 498</td>
<td>100%</td>
</tr>
</tbody>
</table>

(Source: adapted from Kesper, 2000)
As per Table 4 above, Kesper (2000) found that the Western Cape is the third most important contributor to South Africa’s national manufacturing output and employment. Kesper (2000) noted that SMMEs constituted the majority of manufacturing companies in the Western Cape region, although she noted that they showed little initiative to technically improving their production capacity and lacked standardised quality control procedures.

In summary, it is apparent that SMMEs have a significant impact on the South African economy and that manufacturing SMMEs has a large economic impact on GDP in the Western Cape.

It is also apparent that government support programs in terms of access to finance, skill and quality initiatives are severely lacking in the SMME sector and appear to have not noticeably improved SMME productivity or competitiveness.

Based on the information in the literature review, it is apparent that a stronger emphasis on quality management and quality improvements in SMMEs could have a significant impact on SMME output, profitability and hence a significant positive impact on GDP in South Africa.

If Ross et al's (2000) research findings are applied directly; quality improvements in the SMME sector of the economy could result in a minimum of ten percent (10%) improvement in the national GDP. In other words, if SMMEs realise their potential to increase output by twenty percent (20%) through quality improvement initiatives, this could result in an increase of about ten percent (10%) in GDP

However, all such support initiatives, including quality initiatives are dependant on government support and the overall support of institutions such as the South African Quality Institute.

It is for the above reasons that it was specifically decided to focus this survey on SMMEs in the Manufacturing sector of the Western Cape, as a representative sample of SMMEs in the general economy, with the possibility of extrapolating the study results to the broader SMME community.
CHAPTER 5 – ANALYSIS OF SURVEY DATA

5.1 SURVEY SAMPLE

Seventeen (17) out of the thirty (30) companies requested to participate in the survey returned their survey forms in time to allow completion of this thesis report.

This represents a response rate of fifty six percent (56%) and a ten percent (10%) sample of the one hundred and seventy seven (177) Engineering SMMEs, registered with the Cape Regional Chamber of Commerce and Industry, in the Western Cape.

5.2 SURVEY RESPONDENTS DEMOGRAPHICS

The demographics of the survey respondents is displayed in Figure 5 and shows that the respondents are comprised of a good spread of companies in almost every SMME classification group as per the National Small Business Act: 1996, from Micro SMMEs through to Medium companies.

Figure 5: Responding Company Demographics.
The spread of the number of employees as summarised in Figure 6, shows that the respondents constitute a representative sample of SMME companies, from those that employ five or less employees to those that employ more than one hundred employees.

Figure 6: Responding Company Employee Profile.

Only two or approximately eleven percent (12%) of the respondents reported that they form part of a larger corporation and both these companies are classified as medium, in terms of the National Small Business Act: 1996.

5.3 SURVEY FINDINGS

5.3.1 Questions related to the quality system

Analysis of the survey data summarised in Figure 7 indicates that only twelve percent (12%) of SMMEs do not have a formal Quality management system. This means that eighty eight percent (88%) of engineering SMMEs in the Cape Town metropolitan area have a formal QMS in place.
The two companies that do not have a QMS are classified as “Micro” and “Very Small” in terms of the National Small Business Act.

Only one respondent indicated that they had a QMS, that was developed in-house based on TQM principles, whereas the balance of eighty two percent (82%), reported having a QMS based on the requirements of ISO 9000.

5.3.2 Questions related to QMS implementation

Sixty seven percent (67%) of respondents indicated that they had implemented their QMS voluntary and that the implementation of a QMS was not due to any stakeholder, client or contract influence or pressures.

Forty percent (40%) of respondents implemented their QMS, internally, without the assistance of an external consultant. Of the companies that utilised consultants, fifty five percent (55%) made use of both internal resources as well as an external consultant for implementation, whereas only forty five percent (45%) used only outside consultants for implementing their QMS.

Sixty six percent (66%) of the companies that only used outside consultants are classified as “Small” in terms of the National Small Business Act.
5.3.3 Questions related to QMS audits

Figure 8 summarises the respondent's QMS audit profile, indicating that sixty percent (60%) of respondents have both internal and third party or certification audits and only thirteen percent (13%) have internal and client audits.

Twenty-seven percent (27%) of respondents perform only internal QMS audits, meaning that they are not formally registered ISO 9000 certified companies, but have based their QMS on the requirements of ISO 9000.
Seventy three percent (73%) of respondents noted that their QM system is fully integrated into all aspects of their business, as is required by ISO 9000, and is not just final product related.

5.3.4 Questions related to support received for QMS implementation

Only thirty three percent (33%) of respondents reported receiving financial support from an industry body for implementing their QMS. Financial support varied from as low as twenty percent (20%) to as high as ninety percent (90%) of the QMS implementation costs. None of the respondents received any financial support form the government’s Small Enterprise Development Agency, previously known as Ntsika.

None of the respondents received any form of non-financial support form organisations such as South African Quality Institute or the South African Bureau of Standards, during the implementation of their QMS.

5.3.5 Questions related to QMS staff and staff knowledge

Sixty six percent (66%) of respondents have a quality manager who shared this role with other responsibilities in the company. In other words, only one in three companies have a dedicated quality manager. One SMME commented that the cost of appointing dedicated QMS personnel is perceived to be higher than the associated benefits of implementing a QMS.

With respect to staff QMS knowledge, respondents noted that on average, management and senior staff have a medium to high understanding of the QMS and the associated business benefits. However, respondents reported that junior and administration staff, on average, have a medium to low level of understanding of the QMS and the associated business benefits.

5.3.6 Questions related to barriers to implementing a QMS

The effort to maintain the QMS and the implementation cost involved were reported as being the main reasons why SMMEs are reluctant to implement a
formal QMS or seek ISO 9000 certification. Other reported barriers to implementation include:

- QMS requirements were either unclear or difficult to understand
- Existing management systems
- No business advantage experienced
- QMS Training and Employee related barriers
- Company size
- No financial support

Existing practices such as the review of product design, product testing before release to customers and the owners direct interaction with the customer are reported as existing management systems/controls that negated the need for a formal QMS.

With respect to staff training, one respondent reported that the implementation of the QMS meant that all employees needed to be trained in the QM system and that this has a high cost and time impact for the SMME. The long implementation time that would require management support throughout and the difficulty getting employee buy-in to the QMS was also reported as an employee related barrier.

Regarding the company size barrier, one of the micro SMMEs noted that due to company size, the owner is directly accountable to customers for the quality of product and the company thus does not require a formal QMS. Another comment made by a micro SMME owner is that they rely on the ISO certification of their major equipment supplier and thus do not see the need for an in-house QMS.

Both SMMEs that do not have a QMS reported that the main reason for them not having a QMS is the size of the company (i.e. no of employees and turnover). A comment noted by the owner of one of the “Very Small” companies, is that the owner takes direct responsibility for product/service quality in the face of the customer and as he is hands-on in most jobs, he has
first hand experience with respect to the quality of his product/service before it is passed to the customer.

From these comments, it appears as if the “Micro” and “Very Small” SMMEs have the impression that as they only employ a limited number of people, the owner has sufficient control to ensure product and service quality, without the need for a formal QMS system.

5.3.7 Questions related to cost of implementation

From the QMS implementation cost profile as summarised in Figure 10, it can be seen that the QMS implementing costs in the SMMEs that responded to this survey, ranged between R 5 000 and R 100 000. This cost spread becomes more apparent when respondents are compared based on the respondents audit profile. Thus, the QMS cost for respondents that have internal and third party audits range between R 30 000 and R 100 000, while the cost for companies using only internal audits varies between R 5 000 and R 20 000.

This indicates that third party certification audits and follow-up audits are a significant cost contributor to the QMS implementation cost.

Figure 10: QMS Implementation Cost Profile.
CHAPTER 6 – DISCUSSION AND CONCLUSION

This chapter will attempt to test the validity of the three hypotheses as defined in Section 1.4 of Chapter 1, against the collected survey data as summarised in Chapter 5.

6.1 VALIDITY TEST HYPOTHESIS 1

The survey data shows that eighty eight percent (88%) of companies that responded to the survey have implemented a QMS and that forty percent (40%) of those that implemented a QMS, did so with only internal resources i.e. without the help of external consultants. The data also shows that only twenty seven percent (27%) of companies that implemented a QMS did so by exclusively utilising outside consultants.

The fact that such a low number of companies made exclusive use of outside consultants indicates that the management of these SMMEs have a high level of understanding of QMS requirements and know how to implement and maintain the QMS.

This data thus invalidates Hypothesis No.1, which states that very few SMMEs have a QMS in place, or actually know how to implement and maintain a QMS.

6.2 VALIDITY TEST HYPOTHESIS 2

The survey contained specific questions related to the level of QMS knowledge and understanding of the various staff categories found in SMMEs. In relation to these questions, most respondents noted that management and senior staff had a medium to high understanding of the QMS and the associated business benefits.

It was however reported that junior and administration staff on average has a medium to low level of understanding of the QMS and the associated business benefits.
This data thus invalidates Hypothesis No. 2, which states that management within SMMEs have very little understanding of the requirements for a QMS and the business benefits of implementing a QMS.

6.3 VALIDITY TEST HYPOTHESIS 3

The survey data shows that sixty seven percent (67%) of respondents had implemented their QMS voluntary and that the implementation of their QMS was not due to any stakeholder, client or contract influence or pressures.

This clearly invalidates Hypothesis No. 3 which states that SMMEs only implement quality management systems due to contractual or customer requirements.

6.4 CONCLUSIONS

The survey data has invalidated all three hypotheses derived from past international research related to the application and implementation of QMS within SMMEs.

It clearly shows that, in general, a high percentage (88%) of Engineering SMMEs in the manufacturing sector have implemented some form of QMS and that ISO 9000 seems to be the dominant system utilised. It also shows that most of these SMMEs had decided voluntarily to implement their QMS, without any client, stakeholder or contract pressures.

Further more it was found that most (60%) of the companies with a QMS were actually ISO certified and had third party audits.

This data clearly shows a significant deviation from those documented in past literature and research findings as summarised in Chapter 3. This could be due to any number of factors, including the following:

- Engineering companies in general tend to use codes and standards more than most other industries,
Owners and managers of engineering companies in general tend to be highly educated and qualified,

ISO 9000 tends to be more prevalent in manufacturing type companies and less prevalent in service companies

However, it must be stated that other data collected in the survey that is not directly related to the three hypotheses shows a closer correlation to those documented in past literature and research findings as summarised in Chapter 3.

Thus, the survey results clearly show that the implementation cost and the effort required to maintain the QMS, are widely recognised as the main barriers to the adoption of a QMS.

The survey results also confirm the findings of SMME surveys conducted by Radly et al (2001) and World Wide Works (SME Survey: 2006), which noted that government support programs in terms of access to finance and quality infrastructure were severely lacking. Thus, none of the SMMEs that responded to this survey received any form of non-financial support for implementing their QMS.

Also, the fact that only thirty three percent (33%) of respondents received some form of financial support for implementing their QMS also points to the fact that government's SMME support initiatives are not having a tangible impact on the competitiveness and sustainability of SMMEs.

The discrepancies between the results of this survey and past literature and survey findings highlights the fact that more research is needed in relation to QMS within SMMEs and its potential economic impact. Also based on these findings, the correlation between Engineering SMMEs in the Manufacturing sector and other manufacturing SMMEs needs to be fully explored and understood before these results can be extrapolated to SMME is other sectors of the economy.
CHAPTER 7 – RECOMMENDATIONS

From the above, it is apparent that the findings of this survey, does not support the hypotheses that:

1. Most SMMEs do not have a QMS,
2. SMME management have limited understanding of the QMS processes and requirements, and
3. SMMEs only implement a QMS due to external pressures.

Although these hypotheses were derived from available literature and research related to quality management in SMMEs, the disconnect between the results of this survey and past research, can be ascribed to the fact that the past research is of a generic nature and is based on total SMME population.

Other finding in this survey, such as cost of implementation and other barriers to QMS implementation, do however correlate with past research and literature. This suggests that some of the past research data may be related to all SMMEs in general, while other data may be specific to the field (i.e. Fabricated Metal Products or “Engineering”, Clothing & Textile, etc), and sector (i.e. Manufacturing, Agriculture, Construction, etc) in which the SMME operates.

SMME productivity and competitiveness also appear to be stagnant and this suggests that government’s SMME support policies and initiatives are not effective.

As this survey was confined to Engineering SMMEs in the Manufacturing sector of the Western Cape, the following recommendations are proposed:

- A similar survey should be conducted on a broader sample of SMMEs in multiple fields and sectors of the economy. To limit the scope of this exercise, this survey can be confined to SMMEs in the Western Cape, which represents approximately fifteen to nineteen percent (15% to 19%) of the SMMEs in South Africa.
• The results of this broader survey should be correlated per field (i.e. Fabricated Metal Products or “Engineering”, Clothing & Textile, Pulp & Paper, etc) as well as per sector (i.e. Manufacturing, Agriculture, Construction, etc), similar to the classifications employed in the economic research by Berry et al (2002) and Kesper (2000).

• More research into the tangible benefits (i.e. financial and non-financial) that SMMEs can achieve through the implementation of a QMS is required.

• More research is needed to better understand why the government’s SMME support policies and initiatives are not producing tangible results.

• Correlations need to be established between SMME economic data, potential QMS impact and government SMME support policies and incentives that, from the literature review, appears to be disproportionate.

• Institutions such as SAQI and SABS need to play a more proactive role with respect to QMS in SMME companies.
CHAPTER 8 – CONCLUDING REMARKS

The literature review clearly shows that qualitative and quantitative research into the application and implementation of Quality Management Systems in SMME is severely lacking. This is totally disproportionate to the findings of national and international research related to the economic impact of SMMEs on a country’s gross domestic product. Research into the economic impact of SMMEs indicates that, in general, SMMEs contribute significantly to a country’s manufacturing output and employ a significantly higher number of people than large organisations.

Considering the fact that almost all quality management related literature confirms that implementing a quality management system can and will improve a company’s long-term profitability and competitiveness, it is disappointing to note the big disconnect between the limited research data available related to quality management in SMMEs and the widely available economic research data.

Both quality management literature and economic research data fully support the fact that improving quality within SMMEs will improve their profitability and competitiveness, contributing to long-term sustainability within the SMME sector. The potential to increase a country’s output in terms of GDP through quality management initiatives should not be underestimated.

Another aspect of the literature review that is supported by the findings of this survey is the fact that the South African government’s initiatives to support SMMEs are not producing tangible results. This applies not only to financial, legal and policy support structures, but also to quality related institutional structures and initiatives that are aimed at increasing productivity, improving quality and growing a sustainable SMME sector.

It is also disappointing to note the limited research available related to the tangible benefits that can be achieved by SMMEs through implementing a QMS. Findings from research of this kind could significantly increase the number of SMMEs that decide to implement a formal QMS.
APPENDIX A – BIBLIOGRAPHY


MBA Research Project - SMME Quality Management Survey

To operate competitively and successfully in a global market, a company’s products and services should conform to an acceptable recognized quality standard and its internal processes and systems should be capable of ensuring that these quality standards are adhered to, maintained and improved over the life of their products and services. Most large firms accomplish this by implementing a Quality Management System (QMS) based on ISO9001: 2000, as they fully recognize and understand the business and market value of delivering products that conform to an internationally recognized quality standard. Numerous studies within the international SMME environment generally reflect a trend of minimal understanding of Quality Management Systems and their inherent business and market benefits for SMMEs.

This survey seeks to understand the utilization, application and implementation of Quality Management Systems within SMMEs in the Western Cape Manufacturing Sector. It seeks replies from SMME’s that supply diverse manufacturing products and services, locally, nationally and internationally.

Results will be published in a research dissertation in fulfilment for a Masters of Business Administration degree and it is hoped that the results of this study will lead to more research related to the application of Quality Management Systems within SMMEs and the development of adequate QMS related support structures for SMMEs in all sectors of the economy.

Responses to this survey shall be treated in the strictest confidence and no company names shall be published in the reported statistics and analysis of the survey results. In line with the NMMU’s privacy policy, no company specific information shall be provided to any third parties without the prior written approval of the company involved.

Survey Questionnaire

Please return the completed form to Mr. Shawn Prince, contact details at end of the form.

1. How many employees does your firm have?

   - Less than 5
   - 6 TO 20
   - 21 TO 50
   - 51 to 100
   - Over 100 (Specify)

2. Does your firm operate independently, i.e. is it a separate legal entity:

   - YES:
   - NO, it is a division/part of a larger firm:

3. What is the approximate turnover of your firm in R per annum?

   - Less than R0.15 million per annum
   - Between 0.15 and R4 million per annum
   - Between R4 and R10 million per annum
   - Between R10 and R40 million per annum
   - Over R40 million per annum

4. What is your position in the firm?

   I am the:..........................................................
5. Does your firm have Quality Management System (QMS) in place?

YES, or we are in the process of implementing a QMS [ ]
NO: [ ]

6. If YES to Question 5, What form of QMS are you currently using or implementing?

ISO9001: 2000 [ ]
Other (Specify):……………………………………………………… [ ]

7. If YES to Question 5, How is/was the QMS implemented?

By Internal Individual [ ]
By Internal Team [ ]
By Outside Consultant / s [ ]
Other (specify):……………………………………………………… [ ]

8. If YES to Question 5, How are the QMS audits undertaken?

Internally audited only (i.e. self imposed): [ ]
Internal & Second party audited (i.e. client/stakeholder review): [ ]
Internal & Third party audited (i.e. external audited or certification): [ ]

9. If YES to Question 5, What prompted the implementation of your QMS?

Voluntary, decision not influenced by stakeholders or clients: [ ]
Influenced or imposed by Stakeholders or Clients: [ ]

10. If YES to Question 5, To what extent is the QMS integrated with other business functions?

QMS applies to every aspect of the business [ ]
QMS only applicable to certain processes (e.g. product manufacturing, finance, etc) ……………………………………… [ ]
QMS only applies to final products/services [ ]

11. If YES to Question 5, What was the estimated total cost of implementing the QMS?

R…………………………………… [ ]

12. If YES to Question 5, Did your company receive any external Financial support to assist with the cost of implementing a QMS?

Yes: ………………….% of implementation cost covered by external support [ ]
No: [ ]

13. If YES to Question 5, Did your company receive any non-Financial support to assist with the implementation of your QMS?

Yes: [ ]
No: [ ]
14. If YES to Question 12, Please indicate the source of the financial support?

Local / Regional Government (specify) 
Client 
DTI 
Industry Body (specify) 
Other (specify) 

15. If YES to Question 13, Please indicate the source of the non-financial support? Indicate one or more that apply:

Local / Regional Government (specify) 
Client 
SMME support organization (specify) 
Industry Body (specify) 
SA Quality Institute 
Other (specify) 

16. If YES to Question 13, What is your opinion with respect to the level and quality of non-financial support received?

Exceeded the expectations of your company 
Met the expectations of your company 
Did not meet the expectations of your company 

17. Does your company have a Quality Manager (QM)?

Yes, dedicated fulltime position: 
Yes, but not a dedicated QM position, person also performs other functions within the company: 
No: 

18. In your opinion, what is the level of Quality Management awareness and understanding at the various levels within the company. Use a scale of 1 to 3, where 1 = Low, 2 = Medium, 3 = High.

Senior Management Staff / Owner Level 
Supervisory Level Staff 
Administration Staff 
Artisan/Trade Staff: 
General Staff 

19. What are/were the barriers/challenges to implementing QMS? Indicate one or more that apply:

A QMS is not required: 
The requirements are unclear or difficult to understand: 
Cost of introducing a QMS is too high: 
Effort to maintain the QMS is too high: 
No competitive business advantage is gained from implementing QMS: 
QMS is already covered by existing management processes and controls: 
QMS has little credibility in industry as it does not guarantee good products: 
Other (please describe): 

-Other (please describe): 
-Other (please describe): 
-Other (please describe): 
-Other (please describe): 
-Other (please describe): 
-Other (please describe): 
-Other (please describe): 
-Other (please describe): 
-Other (please describe): 

20. List any other QMS related information you consider important for this survey?

Other (please describe): .................................................................
......................................................................................................
......................................................................................................
......................................................................................................
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......................................................................................................
......................................................................................................
......................................................................................................
......................................................................................................
......................................................................................................

Company Details

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E-mail: 

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APPENDIX C – SUMMARY OF SURVEY RESPONSES
## APPENDIX D – SUMMARY OF SURVEY RESPONSES

<table>
<thead>
<tr>
<th>Company Name</th>
<th>No of Employees</th>
<th>Independent</th>
<th>Size</th>
<th>QMS</th>
<th>ISO9001</th>
<th>Implementation</th>
<th>Audits</th>
<th>Reason for Implementation</th>
<th>Integrated</th>
<th>QMS Imp Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Mechanical Services Group CC</td>
<td>51 to 100</td>
<td>Yes</td>
<td>Medium</td>
<td>Yes</td>
<td>Yes</td>
<td>Internal Individual</td>
<td>Internal</td>
<td>Voluntary</td>
<td>Partial</td>
<td>N/A</td>
</tr>
<tr>
<td>Ajax Manufacturing Company (Pty) Limited</td>
<td>21 to 50</td>
<td>Yes</td>
<td>Small</td>
<td>Yes</td>
<td>Yes</td>
<td>Combination Int &amp; Consultant</td>
<td>Int &amp; 3rd Party</td>
<td>Voluntary</td>
<td>Fully</td>
<td>R75000</td>
</tr>
<tr>
<td>Baldwin-Unifi Filters S.A.</td>
<td>70 to 80</td>
<td>No</td>
<td>Medium</td>
<td>Yes</td>
<td>Yes</td>
<td>Combination Int &amp; Consultant</td>
<td>Int &amp; 3rd Party</td>
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<td>Medium</td>
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<td>Yes</td>
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<td>Stakeholder / Client</td>
<td>Fully</td>
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<tr>
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<td>Small</td>
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<td>Yes</td>
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<td>Fabronex Pty Ltd</td>
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<td>Globe Engineering Works (Pty) Ltd</td>
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<td>Stakeholder / Client</td>
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<td>R100000</td>
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<td>Yes</td>
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<td>Int &amp; 3rd Party</td>
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## APPENDIX D – SUMMARY OF SURVEY RESPONSES

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<td>Active Mechanical Services Group CC</td>
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<td>Ajax Manufacturing Company (Pty) Limited</td>
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<td>No</td>
<td>90% Industry Body</td>
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<td>80% Industry Body</td>
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<td>Fabrinox Pty Ltd</td>
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<td>No</td>
<td>20% Industry Body</td>
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<td>Industrial Hard Chrome</td>
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<td>Kapa Biosystems (Pty) Ltd</td>
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<td>Penguin Products</td>
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<td>Sarum Engineering CC</td>
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<td>High</td>
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<td>Schuurman Laserout (Pty) Ltd</td>
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<td>Windmeul Ingenieurswerke (Edna) Beperk</td>
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<td>DTI</td>
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<td>N/A</td>
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## APPENDIX D – SUMMARY OF SURVEY RESPONSES

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<thead>
<tr>
<th>Company Name</th>
<th>Barrier 1</th>
<th>Barrier 2</th>
<th>Other Comments</th>
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<tbody>
<tr>
<td>Active Mechanical Services Group CC</td>
<td>Implementation Cost</td>
<td>Effort to Maintain</td>
<td>QMS required related to type of business/service of company.</td>
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<tr>
<td>Ajax Manufacturing Company (Pty) Ltd</td>
<td>No business advantage experienced</td>
<td>Effort to Maintain</td>
<td>Training of all employees in QMS.</td>
</tr>
<tr>
<td>Baldwin-Unifit Filters S.A.</td>
<td>Requirements unclear or difficult to understand</td>
<td>Dedicated QM Staff</td>
<td>Benefits of a QMS and dedicated QMS personnel are perceived as being lower than the expense of implementing and maintaining a QMS.</td>
</tr>
<tr>
<td>Capewell Springs</td>
<td></td>
<td></td>
<td>Need to implement ISO14001 &amp; 18001.</td>
</tr>
<tr>
<td>CFW Industries (Pty) Ltd</td>
<td>Existing management systems</td>
<td>Compliance</td>
<td>N/A</td>
</tr>
<tr>
<td>Coatec Mechanical Solutions Pty Ltd</td>
<td>Implementation Cost</td>
<td>Effort to Maintain</td>
<td>Financial support the implementing QMS should be available through the various Industry Bodies.</td>
</tr>
<tr>
<td>Dynachem (Pty) Ltd</td>
<td>Implementation Cost</td>
<td>Effort to Maintain</td>
<td>N/A</td>
</tr>
<tr>
<td>Exo-trading 1007 (Pty) Ltd T/A Chris Engineering</td>
<td>Outside shareholders don't understand the value of implementing a QMS</td>
<td></td>
<td>N/A</td>
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<tr>
<td>Fabrinex Pty Ltd</td>
<td>Requirements unclear or difficult to understand</td>
<td>Implementation Cost</td>
<td>Costs of QMS consultants too high.</td>
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<tr>
<td>Global Engineering Works (Pty) Ltd</td>
<td>Implementation Cost</td>
<td>QMS not required</td>
<td>Link between Health &amp; Safety Management System.</td>
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<tr>
<td>Industrial Heat Chrome</td>
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<td>Kape Biosystems (Pty) Ltd</td>
<td>Existing management systems</td>
<td>Effort to Maintain</td>
<td>Owner directly accountable to customer for quality of product, size of company seen as reason for not requiring a QMS.</td>
</tr>
<tr>
<td>Penguin Products</td>
<td>Implementation Cost</td>
<td>Effort to Maintain</td>
<td>Company too small for QMS, Rely on ISO certification of main material supplier.</td>
</tr>
<tr>
<td>Poscast Manufacturing (Pty) Ltd</td>
<td>No business advantage experienced</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>Sarum Engineering CC</td>
<td></td>
<td></td>
<td>Use QMS to achieve meet customer expectations and enhance customer satisfaction.</td>
</tr>
<tr>
<td>Schuurman Lasercut (Pty) Ltd</td>
<td></td>
<td></td>
<td>Long Implementation time requiring management support as well ad difficulty in getting employee support.</td>
</tr>
<tr>
<td>Windmeul Ingenieurswerke (Edma) Beperk</td>
<td>Existing management systems</td>
<td>Effort to Maintain</td>
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