

Quality Management System Implementation in The South African Small, Medium and Micro Enterprises

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Abstract— This study aims to measure the impact of implementing a Quality Management System (QMS) on Small, Medium and Micro Enterprises (SMEs) in South Africa. The results of this study were achieved by developing a questionnaire and interview questions. This study used a mixed methods approach. A total of 15 business owners participated in the study. The research findings indicate that few business owners have implemented QMS in their businesses. Others have challenges in implementing QMS. This research also reveals that a successful QMS implementation in small and micro enterprises ensures wastage and cost reduction, exceeding customer expectations, and improved control of processes. The study further indicates that QMS can improve the relationship of SMEs with their customers and help with sound decision making. The importance of the study dwells in its ability to show, particularly from the South African SMEs' perspective, the impact and importance of implementing QMS. Future study should consider expanding the respondent pool to a national scale to look at what findings indicate from a national level.

Keywords— *Entrepreneurship, SMMEs, quality management system, Improvement*

I. INTRODUCTION

One of the most important highlights of a strong and fast-growing economy is the existence of small, medium, and micro enterprises (SMMEs). SMMEs are generally recognized and acknowledge as important key drivers of economic success, and are not simply seen as the employment initiators, but also as sales generators and as a source of tax and thus fiscal revenue [1] [2]. SMMEs play a crucial role in the economy of South Africa. They generate jobs, contribute significantly to the gross domestic products in the country, and close the revenue gap. The development and sustainability of SMEs are essential, and the government had placed in several policies, programs, and strategies to address the challenges faced by the SMMEs [3]. It is, however, projected through research that 40% of small micro-enterprises developed and initiated fail in their first year of operation, 60% in their second year, and 90% fails within 10 years of their existence [4].

A. Problem statement

Little research concerning quality management systems affecting SMMEs had been conducted, especially in South Africa. It is important to indicate that a business model is the one that outlines an enterprise strategy and outlines precisely how the small business owner is going to create, disseminates, and capture value within his or her establishment [5], and not doing this is a failure to plan.

Numerous business visionaries assume that they recognize what their intended group needs. New businesses have a long way to go from substantial endeavors that complete research, test the item, and alter it as needs be and test it once more, consequently, failure to act in that way will simply indicate a poor management plan.

Also, entrepreneurs tend to ignore their customers, both internal and external, quality tools, and QMS. This has resulted in increased business downfall, declining sales, and a large number of defects and complaints from customers which makes them move to the other competition.

Regarding the strategy of QMS, probably the most critical constraint of SMMEs is that management is often continuously under pressure, usually dealing with urgent staff and operational matters. QMS does not form the strategic foundations of SMMEs, which impacts their sustainability as micro business enterprises.

B. Study Aim, Questions, Objectives, and Scope

The study aims to examine the effect of the implementation of QMS on South African SMMEs by focusing on quality management principles, which can bring a forth better commitment of leadership, improvement of employee engagement and satisfaction.

The main research question this study aims to answer is formulated as *to What impacts QMS implementation has on the SMMEs industry in the Maboneng Precinct, Johannesburg?*

The specific research questions (RQ) based on the main research question are presented as follows

- RQ1 How can a business mature after following the quality management principles?
- RQ2 Does it matter for an organization to utilize quality management to involve the customers?

The above main and specific research questions lead the study to attempt achieving the following main objective of *assessing the effect of the implementation of QMS in South African SMMEs specifically located in the Maboneng Precinct*.

The study is conducted at the Maboneng Precinct, a connected urban neighborhood on the South Eastern side of downtown Johannesburg, in South Africa, as it is impossible to cover all the SMMEs in South Africa due to limited time and other resources availability. The study focuses on the effect of implementing a QMS in South Africa's SMMEs while focusing on the effect of quality management in SMMEs in the Maboneng Precinct.

C. Limitation of the study

The study has been limited by two main factors, firstly as in most experimental studies, the research was limited by the fact there is little research has been conducted on the effect of QMS on SMMEs from a South African perspective which affected the access to relevant sources of information. Secondly, time constraint was a challenge as it did not allow the researchers to entirely focus on the whole South African SMME's sector, hence resulted in the focus of Maboneng region alone affecting the generalization of the findings [1][5].

D. Importance of the study

The current study gives an insight into the problems or challenges that SMMEs are facing and provides the importance of the implementation of QMS in such businesses. In addition, this research contributes to the limited theory, body knowledge, and practice of quality management research, specifically in the fields of SMMEs.

E. Background and Rationale

QMSs have been evolving at a quick pace in the course of the last century [6]. Technological developments in quality management system have changed the business world, especially for small businesses and micro-enterprises and associations have been compelled to adjust to current trends. Small, medium and micro enterprises are now established as of the top contributors to the South African economy. Not only do they contribute to the economy by creating employment but the SMMEs are relied upon to function as the main impetus in South Africa's social and monetary steadiness[2]. The nation is meeting some developments in the center salary segment with its intensifying access to purchasing power. Subsequently, there have been mounting pressures on the existing framework, for example, medicinal services, security procedures, administrations, distribution of power, clean water, and reusing, all of which offer open doors for SMEs to support them just as business sectors around the world. The emergence of the different internet software bargains possibilities for little organizations to develop through turning out to be web-based business empowered and geological limits have in this way gotten permeable. SMMEs have significantly improved when it comes to growth and their contribution to the South African economy [7].

II. LITERATURE REVIEW

International Organization for Standardization (ISO) gives guidance on specifications for products and services, assisting worldwide trade through achieving global consensus on the contents of these standards. About 20,000 different international standards have been developed by the

ISO for various industries. The most popular ISO standard is ISO 9001, Quality Management Systems requirements, with more than 1.3 million global certifications issued [8].

In South Africa, the government acknowledges the importance of this segment of business activity, so much that a new Ministry of Small Business Development was created in early 2014. The role of Small, Medium, and Micro Enterprises in the economy is important as they are recognized as the key drivers of employment formation, innovation, and economic growth [9].

QMSs are essential for any business to withstand any developments, emergence of technologies, and to manage improvement. However, the price of quality can make it an obstacle for a startup enterprise to have a competitive advantage in the market [10]. Evolved quality management systems provide structured and standardized processes and procedures to do things within companies and ensure the required product quality is maintained [10]. Developing a system that offers the structure for the small and micro-business needs to advance in that it enhances the acknowledgment of the team members through engagement and considerations, development, innovation, and implementation [11].

A. Quality Challenges in South African SMMEs

The variety of small businesses can be from medium-sized enterprises, such as those created as family businesses generating jobs for over a hundred people, to informal micro-enterprises [9]. SMMEs in South Africa encountered various challenges inherent in operating in the South Africa economy. Amongst the difficulties is the composition of the South African economy, where SMMEs compete with well reputable multinational giants in the same working environment with limited resources [3]. The generally held consensus is that small businesses consider the implementation of the standard to be a daunting and expensive prospect, with high on-going costs. There is a perception that it will necessitate a whole innovative set of systems and procedures, and that the coordinates requirements, documented, comprehensive procedures, forms, and records [11].

These perceptions regrettably result in the standard only being seen as a business requirement when necessary to meet a contractual demand, and where no such requirement is needed it is dismissed as 'not for us' [11]. Many organizations implement a formal quality management system after finding that their customers (in both the private and public sectors) want assurance that the products and services they are looking to purchase or obtain will meet their requirements for quality [11]. With ever-increasing demands on small and micro businesses on quality, price, and service, the most effective way to enhance the confidence of customers is through a structured certificated Quality Management System (QMS). For a small business, this is not as daunting as it might appear, as it should always be based on how your business systems currently operate [10]. The lack of education and exposure to management experience further impacts the management skills of entrepreneurs [3].

B. The QMS Implementation in SMMEs - internal and external benefits

The adoption of a QMS is a strategic decision that helps an organization to improve its overall performance and to

provide a sound basis for its sustainable development initiatives [3]. The failure rate of these SMMEs in the first two years was reported to be over 60% in Africa and other developing countries. Still, these SMMEs incubated from these clusters struggle to grow from a start-up into established value streams, due to the absence and stagnation of their quality management systems [10].

- The workforce is bound to have a common, logical system of work with reliable and reiterate procedures to effectively getting things done right.
- Being engaged with the underlying turn of events and surveys will welcome the advantages of the QMS. This will successfully support everyone daily should any circumstance emerge.
- Issues are set down because of the system, the team can collectively consider addressing and preventing recurrence. If another issue emerges, there are procedures set up that the team can use to identify and resolve the issue more rapidly [11].

III. METHODOLOGY

A. Research design

This study follows a Mixed Methods approach which combines both the qualitative and quantitative approaches. The terms 'qualitative' and 'quantitative' refer to the sort of information produced during the research process [12]. Mixed Methods approach is a research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches [13].

Qualitative research, as compared against quantitative studies, places extra emphasis on learning about phenomena from the viewpoint of insiders and comprises the collection of data [14]. This method is beneficial for studying interaction amongst organizations, groups, or individuals in the form of descriptions. The qualitative method in this study was used to collect biographical information and conducting interviews.

Quantitative research looks into the impartial way of learning and investigating. In this type of study, the outcomes are given in numeric qualities and factual strategies are provided to help assess the results [15]. Quantitative Methods for this study include the use of questionnaires to collect data needed to answer the research questions and achieve the study objectives.

B. Sampling techniques

This study used purposive sampling and structured data collection instruments that fit diverse experiences into predetermined response categories as they produce results that are easy to summarize, compare, and generalize.

SMMEs were purposely targeted because the probability of being granted access to employees was higher, and the process of data collection was not time-consuming.

At first, relevant individuals from different SMMEs were contacted telephonically to inform and provide the purpose of the research and to ask for permission to research with representatives from their businesses. For confidentiality purposes, the job titles of the initial contacts are not disclosed, especially having in mind some of their job titles are not relevant to the research, as they are not direct participants.

C. Population and sample

The authors targeted SMMEs based in the Maboneng Precinct. The researchers attempted to create a diverse sample by ensuring that there was an equal number of male and female participants represented, and more importantly that there were representatives of various industries such as advertising retail, finance, restaurant, and catering company, fashion (manufacturing and retail), cleaning company and digital marketing.

D. Data Collection

The Mixed Methods used in this study used a combination of questionnaires and interviews to collect data. This study used a questionnaire designed according to the Likert scale and enriched by the literature. The Likert scale is a widely used tool for questionnaire and, is applied as one of the most fundamental and frequently used psychometric tools in educational and social sciences research [15]. The questionnaire targeted managers and employees from the sampled SMMEs and was made up of sections covering the biographic information related to the participants as well as questions addressing the research questions. Questions designed to collect data from managers addressed leadership communication, team building, emotion management, and how to adopt QMS. Whereas the section of the questionnaire designed to collect data from the employees addressed team building in the organization constraints in the work environment and QMS.

Both structured and unstructured interview styles are used in this research. The questions in the interview were first directed to the management about leadership as a performance, about their general knowledge of QMS, and how to link the vision and mission of the organization to QMS. The questions targeted at the employees focused on the experience on the receiving hand of the management experience, team building components such as playing, rehearsing, and performance in the workplace and task delivery.

IV. DATA ANALYSIS AND RESULT

A. Description of Study Sample

1) Business Type and Size

The majority of business that has participated in the study, or 53%, is concentrated on micro-enterprises. While 20% of the respondents are small, and 27% are medium businesses, as depicted in Fig. 1.

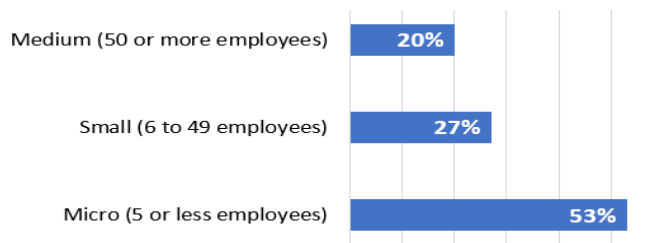


Fig. 1. Description of the Size of Respondent's Businesses

TABLE I. TYPE OF BUSINESS

Type of SMMEs	Frequency	Percentage
Cleaning	2	13%
Security company	2	13%
Clothing and textile	5	34%
Supplier	3	20%
Other	3	20%
Total	15	

SMME's businesses from different industries were targeted to better understand the effect that QMS implementation has on them. Table I outlines that most companies are cut-make-and-trim or clothing and textile organizations with the remaining being cleaning, security, general suppliers, and others such as restaurants and consulting companies representing 20% of respondents Level of Education and Years of Experience.

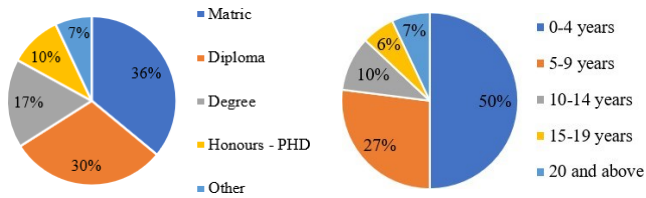


Fig. 2. (a) Level of Education (b) Years of Work Experience

Fig. 2 (a) reveals that 36% of respondents obtained matric, 30% obtained a Diploma, 17% obtained a degree, 10% obtained an honours-PhD, and 7% referrers to other type qualifications. While Fig. 2 (b) indicates that 50% of personnel 0-4 years of experience, 27% have 5-9 years, 10% have 10-14 years, 7% have 20 and more, and 6% have 15-19 years of experience.

B. Qualitative Results

Structured interviews were conducted to understand the use of QMS in different industries. The questions were aimed at top managers and business owners. A total of 15 companies were interviewed.

The results show that 80% of the respondents were not aware of the impact that QMS has on SMEs. Although they did indicate that they have not implemented QMS principles and other continuous improvement tools, they implement other quality practices without realizing and sometimes adhere to the quality standards.

In addition, results show that QMS implementation has a significant impact on the growth of the company and adaptation on other quality standards. The respondents outlined the fact that quality principles and clauses can help their businesses perform better. Another important point that was raised by business owners is that involvement of the internal and the external customers as organizations may retain competent employees, encouraging the continuous enhancement of their knowledge and skills, empowering them, encouraging engagement, and recognizing achievements.

C. Quantitative results

1) Reliability of the questionnaire

As shown in Table II, the reliability of the construct is above 0.70, indicating that the measuring instrument is acceptable and reliable.

TABLE II. RELIABILITY STATISTICS

Cronbach's Alpha	N of items
0.74	28

D. Descriptive analysis

1) Leadership

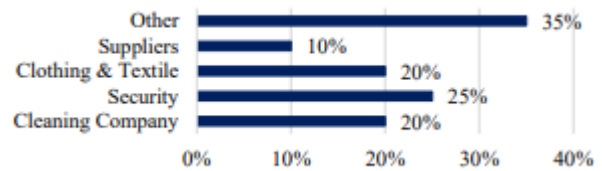


Fig. 3. Leadership

An organization's purpose, direction, and unity are determined by its leadership [16]. The results show that other SMEs focus on leadership more (35%), 25% of SMEs that focus on leadership are security businesses, 20% are cleaning companies, 20% are clothing and textile, and 10% are suppliers.

Fig. 3. Means that the level of communication and commitment is moderate in the security companies, which also helps them in sustaining their organization. On the other hand, supplies businesses slightly focus on leadership, making it a quality concern.

2) Customer focus

Any business aims to satisfy customers [17]. The goal of achieving customer needs can be obtained by focusing on customer needs and, to design and deliver products that meet those specifications [18]. The results shown in Fig. 4. that compare cleaning, security, and other businesses, suppliers (30%) and clothing (30%) focus more on customers' needs and wants, and understand the importance of customer focus as the priority of the businesses.

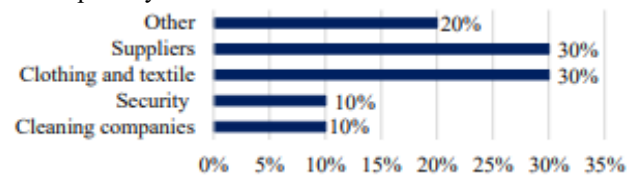


Fig. 4. Customer Focus

3) Employee engagement

Employee engagement approaches implemented by business leaders result in higher levels of employee involvement [19], customer satisfaction, productivity, and profit [20], business performance [21], and lower levels of employee accidents and turnovers [22].

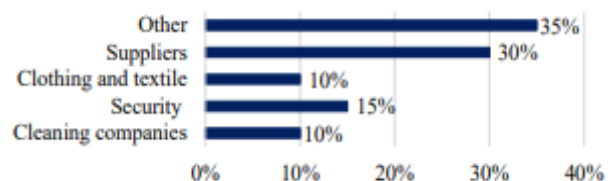


Fig. 5. Employee Engagement

Fig. 5. Reveals that other businesses (35%) involved their employees in the process of their businesses, followed by suppliers (30%), Security (15%), clothing and textile (10%), and cleaning companies (10%).

4) Process approach

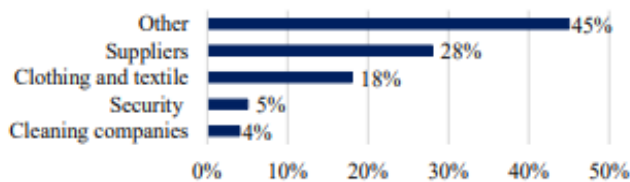


Fig. 6. Process Approach

The results show that other SMMs process approaches are complex to manage but often used to the system, followed by suppliers, clothing and textile, security, and cleaning companies process approach.

5) Continuous improvement

Although continuous improvement is important for industries [23], it also faces barriers in the implementation phase [24]; in this case, the clothing and textile industry as they have different processes.

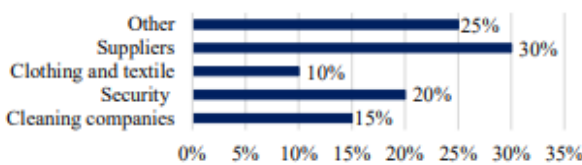


Fig. 7. Continuous Improvement

6) Relationship management

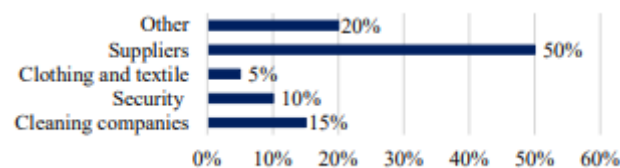


Fig. 8. Relationship Management

Fig. 8. Shows that business's supplies mostly have a relationship management because they work closely with their customers and their suppliers to deliver an excellent end product. However, it is hard for the clothing and textile industries because they are involved in a much more complex task.

7) Customer satisfaction

The objective of each business is to satisfy customers with a high level of service and quality products the business provides [25].

Fig. 9. shows that 33% strongly agree and 33% agree that customer satisfaction has become a priority. 33% strongly agree and 13% agree that the number of complaints has decreased. 20% strongly agree and 33% agree that customers are satisfied with their product or service. 13% strongly agree and 33% agree that customer loyalty has somewhat increased. Finally, 13% strongly agree and 54% agree that customer evaluation of the organization has improved.

It can also be observed that most responses were neutral and respondents did not disagree or strongly disagree with any statement.

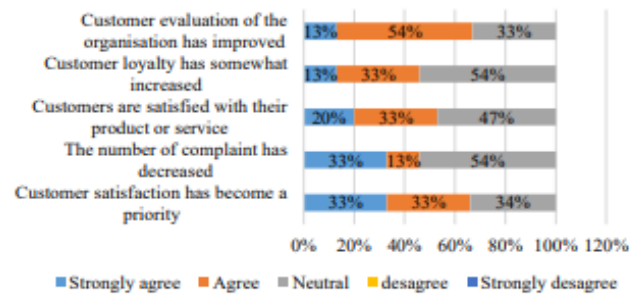


Fig. 9. Customer Satisfaction

8) Product/service quality

Fig. 10 reveals that 13% strongly agree and 33% agree indicated that the products or services meet their customer requirements. 33% of respondents strongly agreed and 26% agreed that the products or services conform to standards. The amount of waste produced is neither decreasing nor increasing according to the study as they have the same percentage. Further research and investigation should be done by SMEs so that the defects can be reduced to increase business performance.

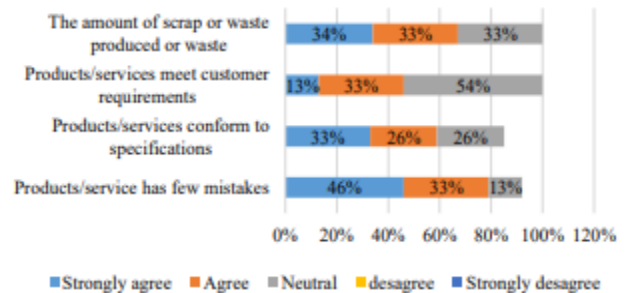


Fig. 10. Service/Product Quality

V. CONCLUSION

QMS can be considered as a mainspring that contributes to the proper functioning of an organization. It could reflect a good working relationship between the organizations and meeting the needs of its customers. The production of quality products and services by an organization for its customers is a result of the implementation of QMS that is guided by well-defined processes, standard operating procedures, and guidelines. The study aimed to examine the significance of implementing QMS on South African SMMs. The findings reveal that a small proportion of business owners have quality management systems in their business while a larger portion of business profiled has challenges in implementing a quality management system. It was also discovered that QMS provides a structure that facilitates businesses to be run effectively and efficiently. Lastly, this research reveals that an appropriate QMS implementation in small and micro enterprises ensures the following:

- Reduction of wastage and therefore reducing cost, meet the customer's needs, thereby exceeding their expectations and improve the control of processes.
- SMEs can use QMS to get tools that facilitate the adoption of data to assist with evidence-based decision making as well as to provide continuous improvement and growth efforts.

- Customer satisfaction is achieved by SMEs that implement QMS through the alignment of customer needs, people, business processes, and technology throughout the business lifecycle.
- Successful QMS implementation within the small business and micro-enterprises can place them in a position to set and achieve their goals, and also meet the requirements of quality control and assurance.

VI. RECOMMENDATIONS

A. Recommendation for SMMEs

SMMEs should opt for the implementation of QMS because it enables competition with large enterprises and maintains the constant quality of their product or services.

Institutions such as the government, educational institutions should install quality awareness programmes, mentorship, training, and consultation to inform and inspire SMMEs to develop a culture of quality within their businesses.

B. Recommendation for future study

Future studies should be conducted in other regions of South Africa, as well as other countries for comparative purposes. Future studies should also collect more data to generalize research findings. Lastly, data analysis techniques such as regression analysis should be used to test hypotheses to contribute to the literature.

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