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Quality Management Practices in SMEs: A Comparative Study between India and Namibia

Abstract

Purpose: SMEs have now become an important part of economy for not only developed nations but also for emerging economies. Irrespective of the benefits that can be derived, SMEs in emerging economies still lack will to implement quality management practices. Using a comparative study we like to understand the status of quality management practices in SMEs of emerging economies.

Design/Methodology/Approach: A survey-based approach was adopted to understand the established quality management practices in the SMEs. A survey instrument was designed by reviewing the literature on quality management initiatives in SMEs. Sample of 270 SMEs across Southern India and 189 SMEs in Namibia was selected through stratified random sampling technique.

Findings: Overall response rate was 19.52 percent for India and 26.46 percent for Namibia respectively. There were similarities and differences in responses from SMEs in both countries. Similarities are in terms of limited implementation of quality management practices also less use of tools and techniques. Reasons for not implementing include unknown to us, and high cost of training. Differences emerged in the type of market (Indian SMEs catering to one major customer), CSFs and business performance indicators. It was interesting to find that management commitment and involvement does not have a major influence as CSF for SMEs in both the countries.

Originality/Value: The research is a first attempt in bringing a comparative study about quality management practices in SMEs from developing countries. The insights will help emerging economies to develop policies for education and training and thus facilitate implementation of quality management practices in SMEs.

Keywords: Quality Management, SMEs, Tools and Techniques, Survey, Comparative Study

Paper Type: Research Paper

Introduction

Small and medium-sized enterprises (SMEs) play a critical role in the growth and well being of the economies across the globe. In particular, SMEs have become a central part of economies in most developing countries, contributing significantly to growth, innovation and success of the societies. In recent years, globalization and liberalization has brought many business opportunities to the growth of SMEs, specifically in developing countries such as India (Singh et al. (2006), Namibia (April, 2005), Pakistan (Kureshi et al., 2009), Senegal (Suárez-Ortega et al., 2016) and Nigeria (Olusanya and Adegbola, 2014). On the other hand, globalization and liberalization has also brought about stiff competition at global level (Ihua, 2009). To survive the ever-growing competition and challenges in the market, SMEs have to emphasize on incorporating quality into various aspects of their products, processes, and services (Herzallah et al., 2014).

Quality management (QM) practices are continuous improvement tools, techniques and strategies for quality improvement, normally driven by the need to meet customer satisfaction. Some of these QM practices are total quality management (TQM), statistical quality techniques, quality assurance, education and training, top management support, employee participation, customer focus, quality systems, to name but a few (Lakhali et al., 2006). The implementation of QM practices calls for total participation of all members in the organization, including the top management who is instrumental in ensuring that the practices are effectively implemented in various aspects of products, processes and services.

Adapting products, processes and services to ever-growing global competition is highly critical for business success in the medium to long term. However, this endeavour is quite a challenge to most developing countries. Consequently, QM practices have increasingly become instrumental as managerial tools for continuous improvement and innovation. To stay competitive and to enter new global markets, SMEs have to implement QM practices.

The level of awareness of QM tools has increased continually in most economies in the developing world, especially in the last decade. Surprisingly, the best and systematic way of implementing quality management practices in SMEs is yet to be known. Various studies have investigated the barriers to successful application of QM initiatives, and some of the findings include difficulty in understanding

and differentiating between major QM initiatives (such as Six Sigma, Quality Control, TQM, ISO, and Lean) and lack of understanding of the actual benefits associated with each of the QM initiatives. Nevertheless, most of these studies have examined the diffusion of QM tools and techniques in industrialized countries while little has been done in developing economies. While very few developing economies have done fairly well in the implementation of these initiatives, most of them have not realized the potential of the initiatives. Comparative studies between such economies may bring up desirable managerial insights that may help to initiate better government top management policies that will influence adoption of QM initiatives that can equip SMEs for both local and global competition. To our knowledge, no significant research has focused on comparative studies of QM practices between developing world countries. Such comparative analyses enable helpful observations, lessons and strategies to be drawn from the study. In this view, the purpose of this study is to make a comparative analysis of QM practices between India and Namibia. Therefore, the specific objectives of the study are as follow:

1. To investigate the extent of the implementation of QM tools and strategies in both India and Namibia;
2. To make a comparative analysis of the application of QM tools and strategies between the two countries;
3. To derive helpful significant managerial insights and strategies for effective implementation of QM practices in SMEs.

This study reveals interesting common and contrasting characteristics between the two economies, and draws key lessons for incremental quality management improvement and innovation for SMEs.

Literature Review

QM initiatives in SMEs

QM practices have been instrumental in quality and process improvement. Not surprisingly, a significant attention has been given to QM practices and their level of implementation in SMEs (Kumar et al., 2014; Azadegan et al., 2013; Hilton and Sohal, 2012; Fening et al. 2008; Kumar and Antony, 2008; Bamford and Greatbanks, 2005). QM practices pertain to a number of tools and techniques aimed at quality and operations improvement.

Among other methodologies, Lean and Six Sigma are regarded as high-level methodologies for quality and operations improvement (Azadegan et al., 2013; Hilton and Sohal, 2012; Swink and Jacob, 2012; Holweg, 2007; Shah and Ward, 2003; Antony and Banuelas, 2002; Anderson and Sohal, 1999; Badri, et al. 1995). Lean is a collection of tools for reducing cost and improving businesses processes by eliminating seven types of wastes. This is accomplished through total involvement, and application of tools such as continuous flow, value stream mapping, continuous improvement, root cause analysis, Just-in-Time (JIT), total productive maintenance (TPM), Kanban and bottleneck analysis (Rose et al., 2011; Holweg, 2007; Hines et al., 2004; Shah and Ward, 2003; Womack et al., 1990). A review of Lean manufacturing best practices in SMEs suggested seventeen Lean practices for SMEs (Sahoo and Yadav, 2018; Rose et al., 2011). Six Sigma on the other hand, is the application of a data-driven problem-solving methodology known as DMAIC (Define, Measure, Analyse, Improve, and Control). The methodology focuses on reducing process variations and meeting customer needs (Shafer and Moeller, 2012; Snee, 2004). Cost savings, waste minimization, and profit maximization have been reported in the literature (Shafer and Moeller, 2012; Timans et al., 2011; Nakhai and Neves, 2009).

Critical success factors

For sustainable benefits, it is important to understand the critical success factors (CSFs) of QM and its implementation barriers (Antony et al. 2008; Yusof and Aspinwall, 2000). One of the most crucial QM principles is the voice of the customer (Kumar et al, 2014; Sohal and Egglestone, 1994). Antony et al. (2008) identified the most important CSFs for implementing Six Sigma in the UK SMEs, namely, management involvement, linking Six Sigma to customers, and linking Six Sigma to the business strategy. Ndiritu et al. (2016) found out that there is a significant correlation between top management commitment as a TQM practice and SME performance. Kumar and Antony (2008) conducted a comparative study of Six Sigma implementation the in UK manufacturing SMEs and found that lack of knowledge and limited resource availability as the main reasons for not implementing QM practices in the companies. Similar studies have been carried out in several literatures (Kumar et al, 2014; Munir, and Elhuni, 2014; Ihua, 2009; Antony et al., 2008; Gadenne and Sharma, 2005; Lin, 1998; Sohal and Egglestone, 1994). Ensari and Karabay (2014) identified and associated the main factors that affect the success of globally successful Turkish SMEs. Ihua (2009) carried a comparative study of failure-factors

between the United Kingdom and Nigeria, and summarized the most significant contributing factors to failure among SMEs, namely, lack of managerial expertise, poor management, inadequate staff training, lack of technical competencies, quality failures, and shortage of resources.

QM Tool Applications

A number of case studies and cross-case studies exist in the literature. Gadenne and Sharma (2005) investigated the influence of QM practices on SME performance, concluding that supplier support, top management philosophy, efficiency improvement and increased interaction with employees and customers had a strong impact on the performance. Kureshi et al. (2010) investigated and offered insights into QM practices in Pakistani SMEs, which represents the broader South Asian business culture. The authors found a significant correlation between TQM implementation and other quality management techniques, such as Six Sigma and 5S. Talib et al. (2014) investigated the CSFs to evaluate the relationship between CSFs and SMEs performance in the food processing industry in Malaysia. Mendes and Lourenço (2014) investigated the barriers/factors hindering QM implementation in the Portuguese manufacturing sector, with emphasis in the SME industry. Findings, highlighted seven different factors namely, top management training, costs and actual performance, lack of external support, human resources' overload, aversion to change, resource shortage, and culture and training. While conducting a comparative study on the QM practices in Six Sigma and non-Six Sigma UK SMEs, Kumar and Antony (2008) and associated impact on firm performance, a significant difference in the performance of Six Sigma/Lean firms against ISO certified companies were observed in terms of strategic and operational performance. Other studies on adoption of QM practices exist in the literature (Perramon et al., 2015; Pun and Jaggernath-Furlonge, 2012; Punnakitikashem et al., 2010).

Other investigations on specific QM tools have been carried out. Findings in Lewis et al. (2007) revealed that out in most of the ISO 9000 certified SME in Trinidad, the soft objectives of TQM represented areas of least implementation. The study concluded that aligning quality culture and top management involvement should be the focal compliance requirements for future ISO 9000 Standard. Kearney and Abdul-Nour (2004) proposed a step-by-step management approach to manufacturing SMEs to reach better quality level in regards to quality management, quality assurance, quality control and continuous improvement. Yusof and Aspinwall (2001) carried out empirical studies on four

industrial case studies in regards to the implementation of TQM in automotive SMEs, indicating that the enterprises had implemented numerous quality initiatives on a customer-driven piece-meal basis. Ghobadian and Gallear (1997) used deductive research to examine the effect of organization size on TQM implementation, based on four small-medium size organizations. The importance of TQM was emphasized. Based on two case studies, Fouweather et al. (2006) emphasized the need for Six Sigma training programmes to help SMEs improve efficiency and quality. Mahmuda and Hilmi (2014) investigated the issues relating to the relationship between TQM and SME performance, affirming that TQM can support both organization learning and performance of SMEs. Rahman et al. (2009) investigated the status of fundamental 5-S quality practices and the implementation of total quality management (TQM) in Indonesian SMEs, concluding that 5-S activities provide a suitable environment for total quality. Related studies on TQM have been done in the literature (McAdam, 2000).

In view of the widespread awareness of the contributions of SMEs to the world economy, it is necessary to carry out comparative investigations on the level of implementation of known QM practices in SMEs. QM practices help SMEs to achieve incremental process and product innovation as shown by several researchers (Antony et al., 2012; Box and Woodall, 2012; Khurshid et al., 2012; Kim et al., 2012) in the UK (Antony et al., 2012; Soltani and Lai, 2007; Mellor and Gupta, 2002), Australia (Kumar et al., 2014; Kumar and Antony, 2008; Prajogo, 2006, 2005; Prajogo and Sohal, 2004, 2001), and other industrialized nations (Kumar et al., 2014; Kumar and Antony, 2008).

QM in the developing world

Extant research mostly focused on the diffusion of QM practices in industrial countries, and relatively less on developing economies in the Asian and African regions (Talib et al., 2014; Okpala, 2013; Ihua, 2009). Talib et al. (2014) studied the critical success factors of QM practices in Malaysian food processing SMEs. A number of these studies have focused on investigating the TQM implementation. Abdullah and Abidin (2012) investigated the enablers of successful TQM implementation in Malaysian SMEs, arguing that formalized management systems, technical design, and human resource integration were the main features for successful TQM implementation. Kureshi et al. (2009) investigated the awareness of QM practices in manufacturing SME in developing countries, with evidence from the northern part of Pakistan. The authors established that the level of awareness of QM related tools have

a positive influence on the success of SMEs. In the same vein, Kureshi et al. (2009) carried out a survey of QM practices among manufacturing SMEs in Pakistan. Jirapattarasilp (2008) investigated the implementation of QM practices in electrical and electronics SMEs in Thailand, indicating that the most employed practices are in area of quality management policy, top management involvement, data collection and analysis, and process management. Similarly, Sukwadi (2015) investigated the level of implementation of QM practices in the Indonesian SMEs, considering product quality, process quality, system quality, total quality and business quality stages.

QM in India

Extant empirical studies have indicated the awareness and the need for QM practices in the Indian SMEs. Deshmukh et al. (2015) carried out a systematic investigation of the effects of training, project management, hardware and software, workforce and top management support on quality aspects, emphasizing training as the most influential factor. While comparing the level of implementation of QM practices in urban and rural SMEs in Bangalore, Srinivas and Swamy (2013) noted that rural firms performed at a higher level of sophistication in QM practices, with TQM as the major component. Other studies explored the influence of QM on SME performance. Singh et al. (2006) investigated the influence of QM on the performance of Indian SMEs. Basu and Bhola (2015) particularly explored QM practices and their patterns in the Indian SMEs service industry. A few percentage of manufacturing SMEs have adopted some of the QM initiatives. For instance, Majumdar (2016) argued that, though the Indian manufacturing industry has generally adopted QM practices, manufacturing SMEs tend to be reluctant to adopt TQM.

QM in Africa

There are a few studies of QM practices by SMEs in the African context. Literature reports that SMEs have struggled to penetrate foreign markets (Suárez-Ortega et al., 2016; Olusanya and Adegbola, 2014; Ihua, 2009). In analysing the knowledge required by SMEs to enter a foreign market, with evidence from Senegal, Suárez-Ortega et al. (2016) identified the main challenges to entering the foreign market, that is, myopic managerial thinking, inflexible managers, and absence of a cooperative culture. Olusanya and Adegbola (2014) carried out an empirical study on the impact of TQM practices on SMEs in Nigeria, recommending quality assurance and control of processes for quality management

improvement as the most prospective QM practices. Okpala (2013) investigated the effects of Lean Six Sigma on SME profitability in Nigeria.

QM in Namibia

Very limited research has been done on QM practices in Southern Africa (Muyengwa et al., 2013; Ntombekaya, 2010), particularly in Namibia (April, 2005). April (2005) investigated the critical factors that influence the success and failure of SMEs in Namibia, particularly in the Khomas region (April, 2005). Studies on the implementation of QM tools in Namibian SMEs have revealed that there is little awareness of high-level tools such as Six Sigma and Lean (Mutingi, 2016). Nevertheless, a significant number of the SMEs in the country have realised the need for customer service quality and delivery.

Apparently, no prior comparative studies have been conducted between developing world countries, in regards to QM practices. It will be interesting to carry out a comparative analysis of two exemplary economies from developing world, for instance, India and Namibia. In addressing this gap, this study attempts to investigate the level of implementation of QM practices and the barriers behind their implementation in the two economies. The comparative investigations will provide significant managerial insights and strategies for effective implementation of QM practices in SMEs. The study is expected to explore and expose interesting common and contrasting characteristics between the two economies, while drawing key lessons for incremental process and performance innovation in SME.

Research Methodology

Questionnaire survey

An exploratory survey was conducted both in India and Namibia. In India the survey was based more in Southern India where there is a cluster of SMEs. The purpose was to understand the extent of implementation of quality management practices in these enterprises. According to Forza (2002), this kind of exploratory survey provides preliminary evidence of association among concepts as well as exploring valid boundary of a theory. According to Kerlinger (1986) survey research is about collecting data from a population or some sample drawn from a population with a focus “to assess the relative incidence, distribution and interrelationships of naturally occurring phenomena” (Kumar and Antony, 2008). The researchers in quality management area focus more on data collection through survey to validate hypotheses and research questions (Kumar and Antony, 2008).

Structure of the questionnaire

The questionnaire had five parts. The first part of the questionnaire was intended to get some general information of the respondent organization, such as - size and type of organization, whether they have quality department, there is a proper quality system in place, and if quality initiatives are implemented. The last question was designed to act as a filter in segregating the data based on organizations that have or have not implemented quality initiatives.

The second part of the questionnaire attempted to identify the critical success factors that are important while implementing quality initiatives in organizations. The third part consisted of two questions. First question was directed at identifying business performance indicators that are to be improved through quality initiatives. Second question explored the tools and techniques used in implementation of quality initiatives. The fourth part was for those SMEs that have not implemented quality initiatives. There was one question in this part to explore about the reasons behind not implementing quality management practices. The last part was designed to obtain background information on respondents including their name, job title, company, mailing address, phone/fax number, and e-mail.

Questionnaire design

One of the main concerns while designing questionnaire is to have a proper response format. This helps in safeguarding against alteration in the type and wording of the question as well as the type of analysis researcher wants to perform (Antony et al., 2007). We used a closed-ended questionnaire format to collect quantifiable data, in order to perform statistical analysis. Further, this kind of format makes it easy to complete, facilitates faster data entry, and thus enabling better data analysis, and summarizing the findings (Fowler, 2002; Kidder 1986). The questionnaire included questions on critical success factors, business performance indicators, and quality initiatives grounded in literature. A five-point Likert-type scale was used to measure critical success factors and quality initiatives (Critical success factors: 1 = no influence, 5= very high influence; Quality initiatives: 1= never, 5= always). Neuman (2006) suggests use of Likert-type scale as it provides precise measure in comparison to a yes/no or true/false items and is also faster and easier to complete. The rating type scale facilitates researcher's understanding about critical issues or factors as the format allows respondents to indicate relative importance of choices (Antony et al., 2007).

Survey Implementation

The survey was conducted by mailing the questionnaire along with a cover letter on the institute letterhead to all the SMEs in the targeted population. The purpose of the letter is to make the enterprises familiarize with our research by clearly stating the objectives and benefits of this exercise. Following Frohlich (2002), we designed the survey in a manner to improve the response rate. So, a follow-up letter reminding to send the responses was mailed to those who have not replied. This is done simultaneously with multiple visits to those enterprises by the researchers and research assistants that are in proximity to the institute. Follow-up letter and visits helped in increased response rate (around 30 percent) from small units. The respondents were offered no incentives except a summary of research findings if they have shown interest by checking the box provided in the questionnaire.

Findings

Preliminary analysis

In this section we will discuss in detail about the respondent profiles from both India and Namibia. The survey was conducted in both the countries simultaneously. The respondents were mainly manufacturing SMEs with a few from service sector.

Number of responses

In India, the questionnaire was posted to 270 SMEs who were in the mailing list. The mailing list was obtained from the District Industries Centre (DIC). DICs in every state keep database of Micro, Small and Medium Enterprises and formulate schemes for the development of the sector. A total of 52 were completed, 30 undelivered due to incorrect address and 10 enterprises declined to participate. Based on the completed responses received, we observed around 60 percent of the organizations have some form of quality initiatives, while 25 percent have not implemented any quality initiatives; remaining enterprises still need to be educated about different quality initiatives.

In case of Namibia, the questionnaire was distributed by mails to 182 SMEs. A total of 50 were returned, 31 undelivered, and 26 declined. Out of the 50 completed responses received, around 52 percent of the enterprises have some form of quality initiatives, 32 percent have not implemented any.

As we focus on both types of enterprises which have or have not implemented quality initiatives, so the usable responses for our study is 52 (for India) and 50 (for Namibia). The remaining enterprises still

need to be educated about different quality initiatives. This is similar to the previous studies conducted elsewhere in the world (for e.g. Antony et al, 2005). Table 1 presents the details of survey sample for India and Namibia.

Table 1 – Overview of the sample

Status	India	Namibia
Total sent	270	189
Undelivered	30	31
Declined Invitation	10	26
Returned (Usable)	52	50
Response Rate (percent)	19.52	26.46

Organization profile

The Namibian SMEs consists of a number of sectors, including, textile, leather, cosmetics, construction, mining, fisheries, agriculture, handcrafting, wholesale, retail, food, banking, tourism, mineral water, and novel manufacturing (e.g., solar stoves and cookers). The agricultural sector supports up to about 70% of the population. The SMEs contributes a significant portion of the economy. However, the growth of the SME sector has been affected by issues such as access to capital, lack of entrepreneurial development and enabling regulatory environment (April, 2005). Other challenges which many of the SMEs face include high purchase costs due to small lot orders, low technical skills, poor quality control capacity, lack of equipment appropriate equipment leading to low productivity, and inadequate retail and factory spaces (<http://sme.mti.gov.na/>).

The types of Indian SMEs which participated in the survey include manufacturers of boiler parts and boiler components, cement plant equipment, steel plant equipment, fuel firing equipment such as burners, valve and valve manufacturing, camshafts manufacturing, automotive parts manufacturers and others. Others involve furniture manufacturers, waste and wastewater treatment product manufacturers, and some service providers such as Computer Aided Design services to product development companies. It is observed that the core manufacturing companies such as of boiler components, cement and steel plant equipment, and automotive components manufacturers mainly use quality initiatives and they have turnover of more than 50 million. On the other hand, smaller enterprises such as furniture manufacturers or wastewater treatment plant component manufacturers do not use any quality initiatives.

Table 2 provides demographic details of survey participants from both the countries.

Table 2 – Demographic details of survey participants

		India	Namibia
Years of Functioning	0-10	13	19
	11-20	18	16
	Above 20	21	15
Quality Department	Yes	23	9
	No	15	17
	Not Available	14	24
Employees in Quality Department	1-19	18	16
	20-49	7	10
	50-99	6	9
	100-199	3	12
	Above 200	4	3
	Not Available	14	----

Descriptive analysis

Critical success factors (CSFs)

Daniel (1961) introduced the concept of success factors and later popularized by Rockart (1979). Rockart (1979) extending ideas from Daniel (1961) defines CSFs as “*the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization*”.

The above definition proposes to “*identify an ideal match between environmental conditions and business characteristics for a particular company*” Esteves (2004). The literature on quality management discusses about CSFs important for implementing quality initiatives in SMEs. These CSFs are mentioned without any rigorous proof (Nonthaleerak and Hendry, 2008; Brady and Allen, 2006). The CSFs specific to SMEs are mentioned in a few literatures, with support coming from surveys (Kumar et al., 2014; Kumar and Antony, 2009). In our questionnaire design we follow these previous studies and included CSFs that are important from quality management point of view.

Survey about CSFs from SMEs and other organizations have always mentioned *Management Commitment and Involvement* as the most important. Surprisingly in our survey it was rated quite below other CSFs (refer Table 3). The CSFs also found to be in the range of high to medium influence. This

pattern is also similar for the responses from both the countries. The average score for CSFs is relatively lower for Indian SMEs in comparison to Namibia.

The top three CSFs for Indian SMEs are: frequent feedback and measurement; make proper investment in resources and management involvement and commitment. For Namibia the influential CSFs are: education and training; team members with great motivation and good customer relationship. As there is no existing literature on comparative study from emerging economies so we focused on context to explain the differences about preferences of CSFs by SMEs in both countries. In case of Indian SMEs the responses are from organizations that mostly deal with a single customer. The customer is a Public Sector Unit (PSU) and is involved in manufacturing boilers for power plants. Given the criticality of the product there are stringent rule for SMEs that supplies components to the PSU. This explains the need for frequent feedback and measurement as well as investment in resources. Since, investment in resources requires top management/owner approval so management commitment and involvement becomes important.

SMEs in Namibia cater to more than one customer. SMEs enhance competition and entrepreneurship in Namibia, and hence the spill over effects of innovation, efficiency and productivity growth could translate into an increase in value added output (White, 1997). Due to increasing competition and growing customer base require enterprises to have better customer relationship. Also the management need to have continuous education and training to enhance employee skill in a competitive environment. This reflects in the preference of CSFs by SMEs in Namibia.

Table 3 – Critical success factors

CSF	India	Namibia
Education and training	2.92	3.84
Team members with great motivation	2.87	3.84
Good customer relationship	3.05	3.82
Cultural change	2.24	3.74
Provide leadership commitment and support	2.55	3.74
Understanding tools and techniques within Lean Management	2.97	3.72
Frequent feedback and measurement	3.39	3.70
Organizational infrastructure and culture	2.74	3.42

Business Performance Indicators

The business performance indicators are not much explored in the literature and there is no specific study exploring it specifically for SMEs. In our survey we included business performance indicators from previous limited studies (Kumar and Antony, 2008) and explored further. The survey helped us in preparing a list of business performance indicators related to SMEs, which we want to explore further.

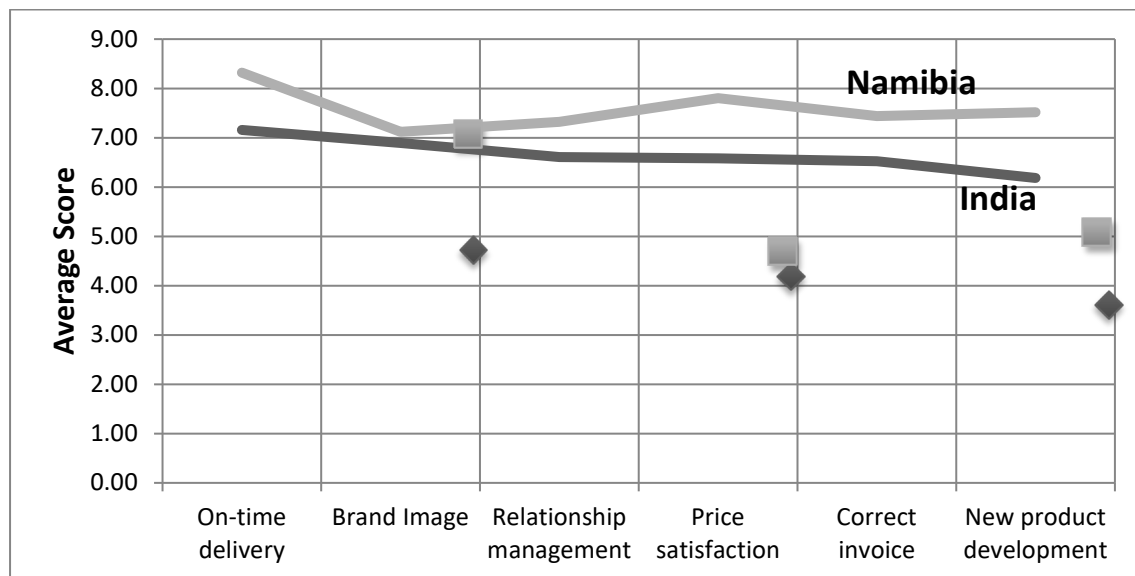


Figure 1 – Business performance indicators

On-time delivery as a business performance indicator was found to be most relevant by the respondents of both countries. The other indicators are then scored differently and this can again be attributed to the context in which these SMEs operate. If we focus on Indian SMEs, the three important indicators including *on-time delivery* are *brand image* and *relationship management*. This is because the enterprises cater to a single customer that is a major PSU manufacturing a critical product. So, brand image of an SME is very important in ensuring continuous receipt of orders from the major customer in vicinity. This also reflects in *relationship management* marked highly relevant by the SMEs. The SMEs are looking to maintain long-term relationship by looking at on-time delivery and thus maintaining their brand image.

Interestingly in Namibian context the business performance indicators that are most relevant are: on-time delivery, price satisfaction and new product development. This reflects the respondent SMEs cater to number of customers and because of competitive market they have to be price sensitiveness of

customers as well as to focus on new product development to stay ahead of competitors. Thus difference in preferences by SMEs in both the countries reflects the type of market these enterprises are catering.

Tools and Techniques

There is much literature mentioning tools and techniques used in different organizational process improvement initiatives. Literature focusing on tools and techniques specific to quality initiatives such as Six Sigma in SMEs is limited barring a few studies (Antony et al., 2007; Antony, 2004). Through the survey we explored the importance placed by SMEs on tools and techniques.

The literature also suggest that those SMEs which have already a quality system such as ISO 9000 in place they are more inclined towards adopting different quality management practices (Majumdar, 2016; Kumar et al., 2014; Kureshi et al., 2009). In our survey we found that for Namibia all the respondents have ISO 9000 system whereas for India only 60 percent of the respondents have ISO 9000 systems in place. This gain can be attributed to the type of market the enterprises are working in both these countries.

To understand the application of quality management practices we found that SMEs in Namibia are more inclined towards Statistical Quality Control whereas in India the focus is more on Total Quality Management. But in both cases these practices are used only sometimes. This shows that irrespective of the market the SMEs are catering to in both the countries quality management practices have limited application. Further the usage frequency for selected quality management practices by these SMEs are also less.

Analysis of tools and techniques shows, that, SMEs of both the countries apply limited tools and techniques and with less frequency. Table 4 shows the average score of tools usage by SMEs of both the countries.

Table 4 – Tools and Techniques Usage

Tools and Techniques	India	Namibia
Root Cause Analysis	2.39	3.50
PDCA (Plan, Do, Check, Act)	2.21	3.08
Value Stream Mapping	1.61	2.74
Bottleneck Analysis	2.03	2.68
Overall Equipment Effectiveness	2.50	1.78
Poka – Yoke (Error proofing)	1.84	1.56

Single Minute Exchange of Die (SMED)	1.39	1.38
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All SMEs in India have not responded for tools and techniques usage (14 SMEs have not provided any score for tools and techniques). The average score for tools and techniques are high (4-often to 3-sometimes) for Indian SMEs, if only the score of those who provided the score are considered.

Reasons for not implementing quality initiatives

The literature focused on SMEs, in describing the difficulties or reasons behind limited use of quality initiatives (Kumar et al., 2014; Khurshid et al., 2012; Antony et al., 2008). The studies though, lack academic rigor and are mainly theoretical in nature. The survey questionnaire included differences and reasons based on previous studies.

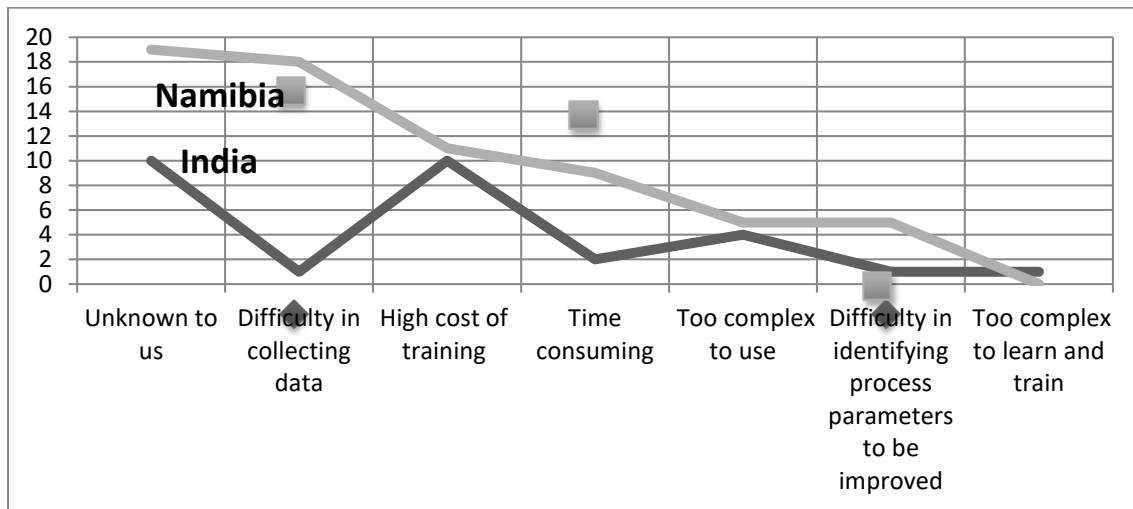


Figure 2 – Reasons for not implementing quality management practices

Unknown to us, and *high cost of training* are cited as the major reasons by most of the respondents from the two countries for not implementing quality management practices. SMEs from Namibia also cited *difficulty in collecting data* as another major reason. This can be attributed to the respondent profile from Namibia. The proportion of service SMEs is bit higher for Namibia in comparison to India. Literature suggests service organizations have generally found difficulty in collecting data while implementing quality management practices, compared to manufacturing organizations (Basu and Bhola, 2015; Antony et al., 2007; Antony, 2004)

Discussion

There are several studies about quality management practices in developed economies as well as comparative studies such as by Kumar et al. (2014) on SMEs in the UK and Australia. But there are no

prior comparative studies about quality management practices in SMEs of emerging economies. This study tries to fill this gap by providing evidences from SMEs in India and Namibia. The purpose is to compare and contrast quality management practices by the SMEs in the two emerging economies.

Similarities

The respondent profile in terms of company size (small or medium) is almost similar for both the countries. This helped in making meaningful analysis from the responses. One of the similarities that are observed is limited use of quality management practices by SMEs of both countries. But it is observed that SMEs of both countries prefer to have quality control and Total Quality Management (TQM) as major initiatives. In Indian SMEs, there are contrasting views over TQM adoption. While Srinivas and Swamy (2013) found TQM as a major quality initiative for SMEs, Majumdar (2016) argues that manufacturing SMEs are reluctant to adopt TQM. There is also less use of tools and techniques. The tools and techniques used by the SMEs of both countries are mostly soft tools (less on statistics (Antony, 2004)). Literature also suggests that though SMEs are interested to apply tools and techniques but is mostly limited in their use because of lack of education and training, and cost factor (Kumar et al., 2014; Antony et al., 2005; Anderson, 1999). Giving SMEs play major role in the economy of both developed and developing nations (Achanga et al., 2006), limited use of tools and techniques and also using them ‘sometimes’ is a cause for concern.

The limited application of quality management practices along with less use of tools and techniques is mostly due to having lack of knowledge of existence of them (tools and techniques) as well as high cost of training. This is based on the reasons provided by our respondents in both the countries. Unknown to us, and high cost of training were the two major reasons emerged from our survey. As one of the respondents mentioned in the questionnaire:

“Technical know-how of the methods is not known to many. Also cost factors are there.”

Differences

Irrespective of certain similarities between the responses, there are some visible differences. First difference is about the market and customer of the SMEs. In Indian scenario the respondent SMEs are mainly catering to a major customer whereas in Namibia the enterprises have wider customer base.

Further it is also understood from literature that SMEs in Namibia are looking for overseas market (Suárez-Ortega et al., 2016; Olusanya and Adegbola, 2014). Due to these reasons, there are more SMEs in Namibia those have implemented ISO 9000 quality management system in comparison to Indian SMEs who responded. In case of Indian SMEs, the PSU that is a major customer does its own supplier quality rating and that is a major decision factor in buying the material from the enterprises. A quote from one of our respondents helps us understand the importance of supplier rating.

“...supplier quality rating is taken very seriously as the raw materials acquired should be of the required quality in order to maintain the company's (PSU's) brand name.”

This explains to us limited ISO 9000 certification of our respondent SMEs from India. This context helps us in explaining the other differences that emerged from our survey responses. The critical success factors (CSFs) again varied between the SMEs of two countries. The SMEs from Namibia found education and training, team members with greater motivation and good customer relationship as most influential CSFs. Indian SMEs highlighted frequent feedback and measurement, make proper investment in resources and management commitment and involvement as major CSFs. Surprisingly in both cases we found that management commitment and involvement is mentioned as having medium influence. This is in contrast to the existing literature (Ndiritu et al., 2016; Kumar et al., 2014; Antony et al. 2008) that highlights the importance of management commitment and involvement in successful implementation of quality initiatives.

Another major difference that is observed from our responses is about business performance indicators. While SMEs from both sides focus mainly on on-time delivery but there are some visible differences. Indian SMEs responded about the importance of brand image and relationship management, whereas, Namibian SMEs focus more on price sensitivity and new product development. This again can be attributed to the customer(s) these enterprises are catering. In case of India, the focus is more on relationship building through better supplier quality rating and thus maintaining proper brand image. This resonates from the quote of one respondent *“very important to maintain brand value”*.

Thus we can see that context in which SMEs operate play a major role while deciding about quality management practices as well as success factors that drive the implementation of these practices. The

comparative studies till now have focused mostly about SMEs in developed economies (Kumar et al., 2014; Mellor and Gupta, 2002) where the focus was more on implementation of advanced practices such as Lean and Six Sigma by the enterprises. This is the first study comparing quality management practices in SMEs from two emerging economies. This is also timely given the focus of Indian Government on making the country a manufacturing hub and SMEs can play vital role toward achieving this objective.

Conclusion

The study comes out of the existing discussions about quality management practices in developed economies. It provides a different perspective on SMEs in emerging economies by comparing quality management practices, critical success factors, tools and techniques usage, business performance indicators and reasons for not implementing quality initiatives. We observed similarities in quality management practices (quality control and TQM), tools and techniques usage (root cause analysis, overall equipment effectiveness and PDCA) and reasons (unknown to us and high cost of training). Differences emerged in terms of critical success factors and business performance indicators. We hypothesize the difference is because of the market and type of customers these enterprises are supplying their products or services to. In Indian context it is major Public Sector Unit whereas for Namibian enterprises it is more about survival in market with broad customer base. Irrespective of the context, we feel 'unknown to us' response by majority of enterprises shows that there is a strong need to educate the SMEs about quality management practices and related tools and techniques.

The current study deploys exploratory survey method and collects data through mail. The small sample size could be counted as one of the limitation of this study. Also, the data for Indian SMEs was collected from Southern India cluster of SMEs which could potentially be another limitation of the study. The study in its current form provides descriptive results and as a next step we like to focus on conducting case studies with interested enterprises to explore further and develop a framework to extend the implementation of quality management practices in SMEs in emerging economies.

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