



Market Implications of Quality Management System (QMS) on Accredited Small Training Providers in KwaZulu-Natal

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Abstract: *This paper investigates the effects of Quality Management System (QMS) on business operations. It examines market implications of QMS accreditation on small training providers in KwaZulu-Natal (KZN). The South African Qualification Authority (SAQA) is a statutory body, regulated in terms of National Qualification Framework Act No. 67 of 2008 to oversee the development and implementation of the National Qualification Framework (NQF). They are responsible for accrediting 21 sector-based Education and Training Quality Authorities (ETQAs) for the purpose of monitoring and auditing training achievements in terms of the national standards and qualifications. For this study, the ETQAs belonging to 12 different Sector Education and Training Authorities (SETAs) provided sample frames of accredited training providers in KZN. Thus, the SETAs are responsible for administering education and training within their industrial sectors. Of the 39 small training providers that were identified, 31 participated in the study. Respondents were selected on the basis of their size as well as access to fax facilities and electronic mails. Descriptive statistics were used to analyse the two objectives. That is, the effects of QMS on business operations as well as the market implications of QMS accreditation on small training providers. The result indicates that QMS helps small training providers operate in accordance with business objectives. Hence, QMS effectively improves businesses operations. However, the majority of small training providers do not take advantage of QMS accreditation status to market their businesses. Thus, the market implications of QMS accreditation on small training providers are lacking. The original value of this paper is its approach in uncovering strengths and weaknesses of QMS on business operations as well as its implications in the market of accredited small training providers in KZN. Whilst the paper shows a growing historical volume of journals, it provides initial baseline data upon which to base future work.*

Keywords: *accreditation, business operations, ISO 9001, KwaZulu-Natal, market implications, quality management system, small training providers.*

1. INTRODUCTION

QMS is a framework recognised by organisations and governments around the world and has consequently grown into the *de facto* standard for management systems (Quazi and Jacobs, 2004). Organisations incur significant costs in obtaining accreditation, making it worthwhile to study the process to better understand the pertinent measures of accreditation success. QMS certification requires a focus on performance measures underscoring that an organisation's management systems is a valuable, non-tangible asset (Piskar and Dolinsek, 2006). In this study, the analysis was conducted to evaluate the influence of QMS accreditation on the market performance of small training providers. QMS Accreditation is defined as the approval or certification granted by the relevant authority, representing the interest of both

public and students, to an institution on account of it having programmes and quality assurance systems that ensure the provision of set qualifications and educational standards for a particular period of time (Manyaga, 2008).

QMS in education and training is designed in accordance with industry quality models of ISO 9001 (EDUTEL, 2011) and the techniques ensure quality in skills development. In addition, the system establishes continuous improvement mechanisms for all the dimensions and processes in the institutions of learning and, ultimately, improves their performance (CEDEFOP, 2011). Thus, the system has been implemented in educational institutions in many countries around the world. In the case of Spain, as in other countries, the use of QMS in education began in universities, and was later applied to primary and

secondary schools (Fernández, Egido and Rafael, 2016). Many institutions of learning apply QMS to their daily activities (Dumay, 2009). These systems, adapted to the specific objectives established by the education institutions as well as their customers and suppliers (Luneburg, 2010), are an attempt to establish systematic, structured and continuous quality assurance processes to ensure their sustainability and improvement. Whilst the main objective of the institution of learning is to guarantee student learning, previous studies in the quality arena have highlighted quality system elements that impact on organisational performance. Carlsson and Carlsson (1996) identified better processes and better customer relations as benefits of implementing ISO 9000 in Swedish companies. Lee and Palmer (1999) cite monitoring day-to-day adherence to documented procedures and understanding of the corrective action process as significant challenges. Whilst the above are specific measurement and improvement sections of QMS, the following broad QMS “elements” are relevant for this study:

- 5.0 Management commitment.
- 6.0 Resource Management.
- 8.0 Measurement, Analysis and Improvement.

The above broad elements of QMS were chosen for their relevance to the entire study. The study investigates the effects of QMS on business performance.

The increasing widespread application of QMS has often been surrounded by intense debate since the relevance they may have in education and the appropriateness of the models used for the actual situation in institutions of learning is often questioned (Doherty, 2008). The research to date has not unequivocally validated the usefulness of QMS in institutions of learning (Stensaker, Langfeldt and Huisman, 2011). While some studies pointed out that they help achieve considerable educational improvements (Stensaker, 2007), other papers indicated that their effects were irrelevant, or even harmful, for educational centres (Fernández, *et al.*, 2016). Having discussed the importance of QMS for accreditation, the next section presents study objectives. These will be followed by theoretical framework for this study.

2. OBJECTIVES

This study examines the influence of QMS on small training providers in KwaZulu-Natal. The following are sub-objectives:-

- to investigate the effects of QMS on business operations; and
- to examine market implications of QMS accreditation on small training providers.

3. THEORETICAL CONSIDERATIONS

This section presents the effects of QMS on business performance as well as the market implications of QMS accreditation on small training providers.

3.1 The effects of QMS on business operations

The two opposing developments in lifelong quality regimes can be observed. On the one hand structures, accreditation, rules and regulations gain importance, mainly with the rise of New Public Management approaches (Manyanga, 2008). On the other hand, the interest in quality culture as the underlying concept for organisational improvement in lifelong performance is a dominant theme in much of the available management literature (Löffler, 2005). The important emerging message is that an emphasis on values, norms and culture in an organisation is easily combined with the question of organisational accountability and performance (Mak, 2011). Thus, there is a need to introduce an understanding of quality in education from a more comprehensive perspective than just analysing single isolated factors.

Reports on the results of a QMS mail survey, administered in four Far Eastern countries, Japan, South Korea, Hong Kong and Taiwan, showed the following benefits of QMS certification: improved corporate image, quality improvement, increased customer satisfaction, and improved internal procedures (Pan, 2003). Juran (1991) wrote that in order to attain quality improvement of a certain product or service, a quality leap is needed in order to decrease weaknesses and reach a new level of quality control. Unfortunately, management does not always feel responsible for improvements. If management does its job well (that is, providing

long-term company policy, education, interdepartmental communication and cooperation, etc.), the system is likely to improve the company's market position, and people would be willing to cooperate and exploit their abilities, knowledge as well as creativity (Sampaio, Saraiva and Rodrigues, 2011). Owing to many external and internal positive effects of quality system on the organisation and company's business activities, as confirmed in studies made all over the world, companies could use the quality system as a business model for improving their market performance. Hence, the next section discusses the market implications of QMS accreditation. This means that all business decisions regarding vision, values, mission, company strategy, investments and business indicators derived from the quality system, must be supported by data.

3.2 Market implications of QMS Accreditation

The majority of QMS users felt that the advantages of using QMS outweigh the disadvantages (Tsekauras, Dimara and Skuras, 2002). Small organisations that implemented QMS were motivated by marketing and competitive advantages (Quazi and Jacobs, 2004). In addition, McAdam and McKeown (1999) in Quazi and Jacobs (2004) reported that in Northern Ireland, QMS certification resulted in the following specific benefits:

- better control of business;
- increased sales/business;
- reduced costs;
- increased productivity; and
- fewer customer complaints.

The authors also reported that businesses that were gaining most from Total Quality Management (TQM) implementation had started with QMS and focused on both external (e.g. customer satisfaction) as well as internal measures (Piskar and Dolinsek, 2006). These organisations also had full management commitment as well as high levels of employee participation and training. In the same vein, Sun (2000) found that in Norwegian companies, implementation of the ISO 9000 standard was significantly correlated with the reduction of bad quality products and customer

complaints, and business performance such as profitability and productivity. Quazi and Padibjo (1998) in Quazi and Jacobs (2004) found that QMS accredited small and medium size enterprises in Singapore reaped a number of benefits including:

- an increased customer preference;
- improved company quality image and competitiveness in the market;
- compliance to customer requirement;
- streamlined procedures and documentation;
- increased consciousness for preventive and corrective actions; and
- provision of a foundation in the pursuit of TQM.

However, Sun (2000) found that the QMS certification had little influence on market position and competitiveness, and had no influence on employee satisfaction and environment protection. Contrary to the above-mentioned study, Heras (2002), in a study involving 400 QMS certified companies and 400 non-certified companies in the Basque autonomous community, reported a positive association between QMS certification and superior financial performance. Such performance has a direct link to their market performance. Sun and Cheng (2002) found that the SMEs implement QMS because of market and customer demand or external pressure rather than internal initiation. Furthermore, they found no significant relation between QMS certification and improvement of business performance. In a study of organisations with less than 250 employees in Australia, Wiele and Brown (1998) found that most SMEs seemingly felt forced to go for QMS certification and did not move further down the quality path. Goh and Ridgway (1994) reported a very similar finding on SMEs in the UK. Their study revealed that the QMS certification was considered the end-point in the quality journey of the sample companies. As a result, specific benefits of QMS certification that have been reported by various authors are:

- improved quality of work life;
- increased customer preference;

- improved company quality image and competitiveness in the marketplace;
- higher productivity and export sales;
- better control of business;
- reduced costs;
- fewer customer complaints;
- streamlined procedures and documentation; and
- increased consciousness for preventive and corrective actions and the like.

As a result of the prominence of the above benefits, the following QMS “elements” have been chosen for this section and include:

- 5.2 Customer focus.
- 8.2.1 Customer satisfaction.
- 8.5.1 Continual improvement.
- 8.5.2 Corrective action to reduce customer complaints.

The above elements were chosen for their relevance to the second objective of this study. That is, the assessment of market implications resulting from QMS accreditation on small training providers in KwaZulu-Natal.

4. METHODOLOGY

The method of research will be discussed under the following headings, namely: the target population, brief background of businesses that participated in the study, sample, the data collection method used as well as the measurement and analysis.

4.1 Target population

The population on which this study is based comprised 39 small training providers accredited by SETAs. These providers had to operate in KwaZulu-Natal province. Small training providers who were previously accredited but had had their accreditation withdrawn were excluded from the study. Exclusions also include medium and large training providers in KwaZulu-Natal.

Some small training providers were accredited by more than one SETA. Providers that had more than 50 per cent courses under a particular SETA were counted once thus avoiding double-counting.

4.2 Brief background of businesses that participated in the study

Only businesses registered under the three forms of incorporation (that is, close corporation, private company and non-governmental organisation) participated to the study. The ratio of business participation as per their registration was 6:3:1 with respect to close corporation at 60 per cent, private company at 30 per cent and Non-Governmental Organisations (NGO) at 10 per cent, respectively.

4.3 Sample

The ETQAs belonging to 12 different SETAs (that is, the Manufacturing, Engineering and Related Services; Energy; Construction; Services; Wholesale and retail; Education, Training and Development; Health and Welfare; Bank; Transport; Agriculture; Media, Information and Communication as well as Security) provided the sample frames of accredited training providers across South Africa. The respondents were selected based on their size of business, operating within KwaZulu-Natal province and access to both fax facilities and electronic mails. The study only focused on small training providers whose number of full-time employees ranged between zero and 50 as in Antonites, de Beer, Cant and Jacobs (2008:4-5). As a result, 31 training providers participated in the study and had employees ranging from two to 23 and averaged at 9.43 employees from the total participants. Recruitment of respondents was undertaken with the aim of ensuring a representative spread of small training providers from the different sectors of the South African economy. A non-probability purposive method was preferred because of its convenience, its flexibility, is less time consuming, economical, cost effective and judgmentally representative (Welman, Kruger and Mitchel, 2011:57).

The following Table 1 presents the percentage of the total training providers that participated to the study as per their SETA accreditation.

Table 1: small training providers that participated in the study (as per their SETA accreditation)

SETA represented in the study	Percentage of small training providers that participated in the study
Manufacturing, Engineering and Related Services SETA	3.3
Energy SETA	6.7
Construction SETA	3.3
Services SETA	6.7
Wholesale and Retail SETA	6.7
Education, Training and Development SETA	6.7
Health and Welfare SETA	6.7
Bank SETA	3.3
Transport SETA	13.3
Agriculture SETA	10.0
Media, Information and Communication SETA	26.7
Security SETA	6.7

The highest number of training providers per SETA accreditations that participated in the study was from the Media, Information and Communication SETA at 26.7 per cent, Transport SETA at 13.3 per cent and the Agricultural SETA at 10 per cent.

4.4 Data collection method

Data had to be collected from 39 owners of small training providers whose businesses were still in existence. This was achieved by mailing the questionnaires through electronic mail. Similarly, the completed questionnaires were sent back to the author via electronic mail or fax facility. Thirty-one questionnaires were returned representing a 79.5 per cent response rate, considered high compared with the norm for surveys responses

(Baruch and Holtom, 2008). The main reason for this high response rate was due to the invitation letter sent to the small training providers and consistently following up the questionnaires through telephone calls.

4.5 Measurement and analysis

In line with research framework, the study measured eight variables using the questionnaire. On the variable as to whether QMS implementation improves business performance, the study employed a Likert scale, ranging from 1 (strongly agree) to 5 (strongly disagree). Regarding the influence of QMS accreditation on business performance, respondents had to affirm or not affirm with the statement using yes, no or unsure.

4.5.1 Effects of QMS on business operations. Five items were identified as having an effect on QMS on business operations as discussed by Sampaio *et al*, (2011) and Pan (2003). These include: the company operating in accordance with business objectives; the business is guided by the vision and mission statements; QMS guarantees a better quality service to learners; the company has less quality problems since accreditation and the company conducts QMS reviews on an ongoing basis.

Reliability analysis on the effects of QMS on business performance reveals a Cronbach's alpha value of 0.850. This value is above 0.7 and indicates an internal consistency and reliability of the variables on the effects of QMS on business performance.

4.5.2 Market implications of QMS accreditation. These variables were measured by seven items and were based on market implications of QMS accreditation (Goh and Ridgeway, 1994; Sun and Cheng, 2002; Piskar and Dolinsek, 2006; and Quaz and Jacobs, 2004). These include finding new customers, demonstrating quality to potential learners, enhancing competitiveness, entering new markets, increasing the market share since QMS accreditation and reducing customer complains.

Reliability analysis on market implications of QMS accreditation reveals a Cronbach's alpha value of 0.672. This value is close to 0.7 and indicates an internal consistency and reliability of the variables on market implications of QMS accreditation. The software SPSS (16 Ed) was used to do the data analysis. Descriptive statistics was used to analyse the two objectives of the study.

5. STUDY FINDINGS

5.1 Effects of QMS on business operations

Table 2: Effects of QMS on business operations

Effects of QMS on business operations	Percentage response accepting the effects of QMS on business operations
The company operates with accordance to business objectives	100
The business is guided by the vision and mission statements	76.7
QMS guarantees a better service to learners	53.3
The company conducts QMS reviews on an ongoing basis	48.4
The company has less quality problems since accreditation	76.7

The owners of small training providers strongly believe that there was a good effect from QMS on business operations. Critical factors as presented in Table 2 include: companies operating in accordance with business objectives; businesses being guided by the vision and mission statements and they have less quality problems since accreditation. These factors have bigger percentage ranges from 76.7 to 100 per cent. Business owners also indicated that QMS guarantees a better service to learners at 53.3 per cent.

5.2 Market implications of QMS accreditation

Table 3: market implications of QMS accreditation

Market implications of QMS accreditation	Percentage response accepting the market implications of QMS accreditation
Find new customers	44.8
Demonstrate quality to potential learners	65.5
Enhanced competitiveness	56.7
Entered new markets	46.7
Increased market share	56.7
Reduced customer complains	51.7

Owners of small training providers affirmed that QMS accreditation has had positive market implications. Critical market-related factors as presented in Table 3 include: demonstrate quality to potential learners, enhance competitiveness and increase the market share. These factors have bigger percentage ranges from 56.7 to 65.5 per cent. Business owners also indicated that QMS has helped reduce customer complaints at 51.7 per cent.

The lowest market implication factors (that is, those below 50 per cent) include: find new customers and enter new markets.

5.3 Conclusion

During the course of the study, it became clear that small training providers benefit from QMS in improving business operations. However, they do not take advantage of QMS accreditation to market their businesses. This has been shown by the small percentage on the market implications of QMS accreditation.

Apart from the achievements of QMS on business operations, the following recommendations can be made:

- 1) Small training providers should develop and implement an effective marketing

strategy that will help them get new customers using QMS accreditation status.

- 2) Businesses should be able to identify new opportunities and develop training programmes that are demanded by the market. This will help them enter new markets.
- 3) Small training providers should partner with both medium to large public and private companies. They will thus be part of an effective supply chain and, subsequently, get new customers and increase market share.

5.4. Limitations of the study

The usefulness of the findings is constrained by the small sample size. Small training providers who were previously accredited but had had their accreditation withdrawn were excluded from the study. However, the respondents were geographically dispersed within KwaZulu-Natal and represented a wide range of cross-section of industrial sectors.

5.5 Future research required

Based on the findings of this study, further research should focus on the financial impact of QMS accreditation on Small Training Providers. The studies should review the economic significance of QMS accreditation in SA.

References

- Antonites, A., de Beer, A., Cant, M. and Jacobs, H., (2008), "Entrepreneurship and how to establish your own business", Juta: Cape Town.
- Baruch, Y. and Holtom, B.C., (2008), "Survey response rate levels and trends in organisational research", *Human Relations*, Vol. 61, issue-8, pp. 1139-1160.
- Carlsson, M. and Carlsson, D., (1996), "Experiences of implementing ISO 9000 in Swedish industry", *International Journal of Quality & Reliability Management*, Vol. 13, issue-7, pp. 36-47.
- CEDEFOP, (2011), "Evaluation for improving student outcomes. Messages for quality assurance Policies", Luxembourg: Publications Office of the European Union.
- Doherty, G. D., (2008), "On quality in education", *Quality Assurance in Education*, Vol. 16, issue-3, pp. 255-265.
- Dumay, X., (2009), "Origins and Consequences of Schools' Organizational Culture for Student Achievement", *Educational Administration Quarterly*, Vol. 45, issue-4, pp. 523-555.
- EDUTEL, (2011), "Skills Development Facilitator Manual", EDUTEL Publishing, Johannesburg: South Africa.
- Fernández, F. J., Egidio Gálvez, C.I, Rafael, C. S., (2016), "Impact of quality management systems on teaching-learning processes", *Quality Assurance in Education*, Vol. 24, issue-3.
- Goh, P.L. and Ridgway, K., (1994), "The implementation of TQM in small and medium-sized manufacturing firms", *The TQM Magazine*, Vol. 6, issue-2, pp. 54-60.
- Heras, I., (2002), "ISO 9000 Certification and the bottom line: a comparative study of the profitability of Basque region companies", *Managerial Auditing Journal*, Vol. 17, issue-1/2, pp. 72-78.
- Juran, J.M., (1991), "Strategies for World-class Quality: Quality Progress", The Free Press/Collier Macmillan, London/New York, NY.
- Lee, K. and Palmer, E., (1999), "An empirical examination of ISO 9000 registered companies in New Zealand", *Total Quality Management*, Vol. 10, issue-6, p. 887.
- Löffler, S., (2005), "Qualitätsmanagement unter genderrelevanten Aspekten Berichte über die Prüfung von ausgewählten Qualitätsmanagementsystemen an Hochschulen auf die School of Education, Psychology and Sports, Mannheim".
- Lunenburg, F. C., (2010), "Total Quality Management Applied to Schools", *Schooling*, Vol. 1, issue-1, pp. 1-6.
- Mak, B.L.M., (2011), "ISO certificate in the tour operator sector", *International Journal of Contemporary Hospitality Management*, Vol. 23, issue-1, pp. 115 - 130.

Manyaga, T., (2008), "Standards to assure quality in tertiary education: the case of Tanzania", *Quality Assurance in Education*, Vol. 16, issue-2, pp. 164-180.

McAdam, R. and McKeown, M., (1999), "Life after ISO: an analysis of the impact of ISO 9000 and total quality management on small businesses in Northern Ireland", *Total Quality Management*, Vol. 10, issue-2, pp. 229-241.

Pan, J.N., (2003), "A comparative study on motivation for and experience with ISO 9000 and ISO 14000 certification among far eastern countries", *Industrial Management and Data Systems*, Vol. 103, issue-8, pp. 564-578.

Piskar, F. and Dolinsek, S., (2006), "Implementation of the ISO 9001: from QMS to business model", *Industrial Management and Data Systems*, Vol. 106, issue-9, pp. 1333-1343.

Quazi, H. and Jacobs, R., (2004), "Impact of ISO 9000 certification on training and development Activities", *International Journal of Quality & Reliability Management*, Vol. 21, issue-5, pp. 497-517.

Quazi, H.A. and Padibjo, S.R., (1998), "A journey toward total quality management through ISO 9000 certification – a study on small and medium sized enterprises in Singapore", *International Journal of Quality and Reliability Management*, Vol. 15, issue-5, pp. 489-508.

Sampaio, P., Saraiva, P. and Rodrigues, A.G., (2011), "The economic impact of quality management systems in Portuguese certified companies: empirical evidence", *International Journal of Quality & Reliability Management*, Vol. 28, issue-9, pp. 432-451.

Sun, H., (2000), "Total quality management, ISO 900 certification and performance improvement", *International Journal of Quality and Reliability Management*, Vol. 17, issue-2, pp. 168-179.

Sun, H. and Cheng, T. K., (2002), "Comparing reasons, practices and effects of ISO 9000 certification and TQM implementation in Norwegian SMEs and large firms", *International Small Business Journal*, Vol. 20, issue-4, pp. 421-42.

Stensaker, B., (2007), "Impact of quality processes", In L. Bollaert, S. Brus, B. Curvale, L. Harvey, E. Helle, H. T. Jensen, J. Komljenovič, A. Orphanides & A. Surssock (Eds.), *Embedding Quality Culture in Higher Education: a selection of papers from the 1st European Forum for Quality Assurance*. Brussels: European University Association, pp. 59-63.

Stensaker, B., Langfeldt, L., Harvey, L, Huisman, J, & Westerheijden, D. F., (2011), "An indepth study on the impact of external quality assurance", *Assessment & Evaluation in Higher Education*, Vol. 36, issue-4, pp. 465- 478.

Tsekauras, K., Dimara, E. and Skuras, D., (2002), "Adoption of a quality assurance scheme and its effects on firm performance: a study of Greek firms implementing ISO 9000", *Total Quality Management*, Vol. 13, issue-6, pp. 827-841.

Welman, C., Kruger, F., and Mitchel, B., (2011), "Research Methodology". Oxford Press: London.

Wiele, T.V.D. and Brown, A., (1998), "Venturing down the TQM path for SMEs", *International Small Business Journal*, 16 (2): 50-68.