



**Journal of Science,
Engineering & Technology**

JOSET

ISSN-2315-6708

Vol. 2, No. 2, September 2013

CONTENTS

	Page
<u>Agriculture</u>	
1. Enzyme Supplementation of Rice Offal Based Diets on Growth, Haematological and Serum Biochemical Characteristics of Broiler Chickens – Akpet, S.O., Ukorebi, B.A., Modey, M. N. & Gboshe, P.N.	...1
2. Interaction Effects of Weed Population and Weeding Frequency on Early Growth Performance of <i>Brachystegia Eurycoma</i> in the Nursery – Uzowulu, G. I., Ijomah, J. U. & Ovat, O. I.	...7
3. An Inventory of the Timber Resources of Cross River National Park, Cross River State, Nigeria – Ijomah, J. U., Uzowulu, G. I. & Ovat, O. I.	...11
4. An Analysis of the Effective Utilisation of Information Communication Technologies (ICT) in Poultry Production and Resource Use Efficiency by Poultry Farmers in Cross River State, Nigeria – Adinya, I. B., Ele, I. E., Eni, L. I., Abua, J. & Regula, M. L.	...17
5. Profitability of Cassava Products Marketing in Cross River State, Nigeria – Arigor, A. J., Tiku, N. E. and Obuo, P. O.	...27
<u>Biological Science</u>	
6. Prevalence of Gastro-Intestinal Parasites in Dogs and Risk Factors for Zoonosis Among Owners in Calabar, Nigeria – Etim, S. E., Ogbeche, J. O. & Iboh, C. I.	...31
7. Studies on Parasitic Isolates and Trends of Metallic Pollutants in <i>Panaeus notialis</i> (Shrimp) and <i>Macrobrachium vollenhovenii</i> (Prawn) Obtained From Great Kwa River, Nigeria – Abraham, J. T., Oloko, G. O. and Ikpeme, E. M.	...35
8. Crude Oil-Utilising Potential of Microbial Consortia from Streams in the Niger Delta of Nigeria – Etim, L. B., Nfongeh, J. F., Ikpeme, E. M and Akubuenyi, F. C.	...41
<u>Communication Technology</u>	
9. The Need for More Indigenous Media Languages in Cross River State: The Case of Lokaa – Osong, U. O.	...47
10. Harnessing Trado-Media for Community Development – Osong, U. O.	...53
<u>Chemical Science</u>	
11. Vitamin Profiles of <i>Cnidocolus carumbium</i> ("Hospital no far") and <i>Spigelia marilandica</i> ("worm grass") – Alobi, N. O., Enyi-Idoh, K. H., Okoi, A. I., Abara, A. E. & Eja, M. E.	...59
<u>Environmental Sciences</u>	
12. Man-Power Development for Fine and Applied Arts: The Nigerian Dilemma – Palmer, F. M.	...63
13. Land Reclamation and its Implications for Housing Development in Anantigha, Calabar South, Nigeria – Yaro, M. A., Emri, S. I., Agbor, E. A., Ukene, D. & Okon, A. E.	...67
14. Factors that Inhibit Graphic Students in the Department of Visual Arts and Technology, Cross River University of Technology, Calabar – Elemi, N. & Ajibade, B.	...75

15. Functional Arts Education for National Development – <i>Bozimo, Z. B., Henry, E. B. & Bassey, E. O.</i>	...79
16. Landscape Planning and Sustainable development in Nigeria: The Calabar Experience – <i>Agbor, E. A., Inah, S. A., Nwachi, C. C. & Effiom, E. E.</i>	...85
17. Computer Aided Design (CAD) in Architectural Education and Practice – <i>Atamewan, E. E. & Ekhaese, E. N.</i>	...91
Humanities	
18. Testing the Causal Links Between Fiscal and Monetary Policy on Economic Growth in Nigeria– <i>Adesola, W. A. & Ibi, E. E.</i>	...97
19. Total Quality Management (TQM) and Performance of Fast-Food Small and Medium Enterprises (SMEs) in South-East Nigeria– <i>Ukenna, S. I., Anionwu, C. & Afunwa, P.</i>	...103



TOTAL QUALITY MANAGEMENT (TQM) AND PERFORMANCE OF FAST-FOOD SMALL AND MEDIUM ENTERPRISES (SMES) IN SOUTH-EAST NIGERIA

¹Ukenna, S. I., ²Anionwu, C. and ³Afunwa, P.

¹Marketing Unit, Department of Business Management,
Godfrey Okoye University, Enugu State, Nigeria.

²Department of Business Administration, Cross River University of Technology,
Cross River State, Nigeria.

³Department of Business Administration, Nnamdi Azikiwe University,
Anambra State, Nigeria.

Corresponding author: stephenukenna@yahoo.com

Abstract

The impact of TQM on the fast-food SME sector in Nigeria is empirically underreported in the mainstream TQM and SME literature, and little is known as to which TQM principle is the strongest predictor of SME performance in the fast-food context. This twin problem triggered this investigation. Based on purposively selected managers' and supervisors' self-assessment of performance, the objective of the study is twofold: (1) To find out the nature of relationship between TQM and performance of SMEs in Southeast Nigeria fast-food sector, and (2) to find out those TQM principles that most critically propel successful performance of SMEs in the fast-food sector in Southeast Nigeria. To address this twin objective, the study was guided by two research questions and two hypotheses. Primary data were collected via a structured five-point likert scale questionnaire from a sample size of forty six SME managers and supervisors of twenty-three fast food SMEs in Nnewi, Onitsha, and Awka. Consistent with previous studies, Multiple Regression Analysis was employed to conduct the relevant analysis. The study revealed a very strong positive correlation between TQM and SMEs performance and that the five examined TQM principles are statistically significant as predictors of SME performance in the fast-food context. Importantly, the study also revealed that customer-focus is strongest predictor of SME performance in the fast-food context. The researcher made two pungent recommendations: (1) that managers of fast-food SMEs should continue to implement the tenets of TQM as this seem to be the precondition for competitiveness and success, and (2) managers of fast-foods in Southeast Nigeria should place stronger emphasis on customer focus (both internal and external customers) and that internal customer focus must precede external customer focus, which can be developed into strategic core competence.

Keywords: Fast-food; SMEs; TQM; South-East; Nigeria.

INTRODUCTION

Today's marketplace is characterized by hyper competition resulting from world globalization and liberalization; wherein firms survive with much difficulty unless they create a competitive advantage over their competitors (Adam *et al.*, 2001; Samson & Terziovski, 1999; Terziovski & Samson, 1999). With the increasing tide of competition, businesses must craft survival strategies. Consequently, total quality management (TQM) is one of the important issues that have generated a substantial amount of interest among managers and researchers (Ahire *et al.*, 1995; Benson *et al.*, 1991; Flynn *et al.*, 1995; Powell, 1995; Samson & Terziovski, 1999; Sousa and Voss, 2002; Terziovski & Samson, 1999) because it offer opportunity to craft competitive advantage. Since 1980s, TQM has been regarded as one of the effective ways for firms to improve their competitive ad-

vantage (Kueiet *al.*, 2001). Leading pioneers in the quality area, such as Deming (1986) and Juran (1993), asserted that competitive advantage can be gained by providing quality products or services. Additionally, Eng and Yusof (2003) argued that quality holds the key to competitiveness in today's global market. In addition, TQM has been widely considered as an effective management tool to provide business with stability, growth, and prosperity (Issacet *al.*, 2004). Though there is no generally accepted definition of TQM; however, according to Hellsten and Klefsjö (2000) TQM has been defined as a management system in continuous change, which consists of values, methodologies and tools, the aim of which is to increase external and internal customer satisfaction with a reduced amount of resources.

The effectiveness of total quality management (TQM) as a mechanism for organisational

improvement has been widely debated in the literature. Proponents of TQM claim that this philosophy leads to improved firm performance and this outcome has been demonstrated by a number of studies (for example, Flynn, Schroeder and Sakakibara 1995; Powell 1995; Samson and Terziovski 1999; Terziovski and Samson 1999). Proponents of TQM also contend that the philosophy can be applied to any organisation (Powell 1995). To this end, Wernick (1991, p.15), for example, suggested that even the "smaller firm with limited resources can apply TQM principles with measurable success and without undue expense". Further, evidence from literature shows that SMEs often implement TQM in response to external pressures rather than the result of internally generated initiatives to improve quality or reduce costs (see for example, Spendlove 1997; Guilhon, Martin and Weill 1998; Sun and Cheng 2002). Shea and Gobeli (1995) looked at whether TQM was a worthwhile investment and, based on interviews with ten SME owners, concluded that TQM could be used to improve small business performance.

Given the increasing emphasis on the need for a private sector driven economy through entrepreneurship, SMEs continue to spring up in Nigeria. With rising unemployment, most Nigerians are compelled to consider setting up SMEs. This is even truer among south-eastern Nigerians who are naturally known for their high entrepreneurial drive (Olise, Nkamnebe, Ukenna, and Okoli, 2013). Hence the venture into fast-food business is increasingly becoming commonplace.

Noticeably, fast-food SMEs are fast springing up in major cities in southeast Nigeria; and many have withstood and survived the tide of competition. Hence they seem to be succeeding, a situation that suggests the possible practice of TQM. This success is somewhat partly due to huge market opportunity reflected in the youth dominance of the metropolis. This youth dominance is occasioned partly by the presence of university campuses in these metropolitan cities (Nnewi, Onitsha, and Awka) and partly by high rural-urban migration; thus, giving rise to small business activities around these areas. Concomitantly, there have provoked the springing up of fast-food SMEs in these areas to tap into the growing fast-food need of the youth market that is known for their high patronage of fast-foods.

Arguably, the implementation of TQM tenets could be key critical success factor for emergence and continue existence fast-food SMEs; however, exploring the relationship between TQM and business performance in specific SME area, say the fast-food SME sector, is thoughtful. This study examines the relationship between selected TQM principles and SME performance. The measure of performance is based on managers' self-assessment of performance. The broad objective of this study is to determine the nature of relationship that exists between TQM and business performance of SMEs in Southeast Nigeria fast-food sector. In the main, this study is guided by two specific objectives: (1) to evaluate the nature of relationship between TQM and performance of SMEs in Nigerian fast-food sector; (2) to determine those TQM principles that propel successful performance of SMEs in the fast-food sector in Nigeria.

The paper is structured in a way to enhance the reader's understanding. Accordingly, this paper is divided into six broad sections, namely: introduction, theoretical framework, methodolo-

gy, results, discussion of findings, and recommendation, limitation and direction for further research, and conclusion. This introduction section is divided into two subsections, namely: background of study, and statement of problem. This is followed by the section for theoretical framework, which is subdivided into two, namely: empirical review, and theoretical development and hypotheses. The methodology follows after the theoretical framework. This is logically followed by the result from analysis and discussion of findings. The last section addressed the recommendation, limitation and direction for further research, and conclusion.

STATEMENT OF PROBLEM

Many of the studies that have examined the relationship between TQM and performance have focused on large organisations, manufacturing organisations and the service sector (e.g. Nilsson et al, 2001; Sun 2001; Solis et al 1998; Singh et al 2006; Powell 1995; and Ronnback and Witell, 2010;) and the literature recognises that TQM studies on small and medium enterprises (SMEs) are limited (Parkin and Parkin 1996; Walley 2000). In addition, the few TQM studies within the SME domain are general, wherein no effort was made in those studies to explore specific business area of an SME. Thus findings among SMEs in the IT may not be true for SMEs in the fast-food and so on.

Further, the few accessed studies were executed in Europe and America (see for example studies by Walley, 2000 (UK); Anderson and Sohal 1999 (Australia); and Guilhon et al, 1998 (France)). The findings of the few accessed studies vary due to difference in research context, as such; findings are only relevant in that context and generalizability of their findings should be with caution.

The present authors could not access any Nigeria study (at the period of writing this paper) linking TQM to SME performance in the fast-food domain, which, again, confirms the dearth of studies in the Nigerian context. The scantiness of empirical study on the association between TQM and performance is partly due to the unavailability of financial data of SMEs in Nigeria. Corroborating this, Agus and Abdullah (2000) acknowledged that the confidentiality associated with financial data meant that research in this area was constrained to listed companies or large organizations. This would explain why prior research examining the relationship between TQM adopters and firm performance in SMEs has predominantly relied on managers' self-assessments of performance. Worst still, in Nigeria, most SMEs do not keep up-to-date financial records, while some do not have any accounting system, which seems to discourage empirical study linking TQM to financial performance of SMEs.

The problem that has triggered the present study is the somewhat dearth of empirical evidence revealing the most appropriate TQM principle to adopt or emphasise by fast-food SMEs in major cities in Anambra State in order to make them more competitive and sustainable. This is against the backdrop that most previous TQM studies explored SMEs generally; however findings in a particular SME business area (say IT) may not be true or generalized to another SME business area (say fast-food) as challenges may differ from business to business and sector to sector. To this end, the present study sought to address the fol-

lowing research questions: (1) what is the nature of relationship existing between TQM and SME performance in fast-food sector in Southeast Nigeria? (2) which TQM principle(s) most critically propel successful performance of SMEs in the fast-food sector in Southeast Nigeria?

SIGNIFICANCE OF THE STUDY

The fast-food SME sector in southeast Nigeria is fast growing and quality seems to be the watchword. Accordingly, this study is intended to aid managers to implement TQM more effectively by giving recommendations as to which TQM principles to adopt. This way, fast-food SMEs will be more likely to survive amidst competitive tide. Once the critical success factor is revealed by this study, managers will drop the 'me-too' strategy common among Nigerian SMEs and will draw insight from the findings of this study to conceptualize and implement its unique selling proposition (USP) and core competency that will drive stronger competitive advantage.

To potential investors in the fast-food SME sector, this study will serve as an invaluable source of insight. Sequel to the fact that this study is expected to report on the nature of association between TQM and fast-food SME performance, would-be investors will be pre-armed with knowledge regarding critical TQM tenets to quickly put in place so as to survive as a new business entrant.

Expectedly, this study is to fill the apparent knowledge gap existing in TQM and fast-food SMEs literature. This knowledge gap lies in the fact that although so much is known (or research abound in the TQM literature) about TQM implementation among SMEs; however, it is somewhat evident from literature that knowledge stock of TQM implementation among fast-food SMEs is underexposed and needs to be expanded.

THEORETICAL FRAMEWORK

Moreno-Luzon (1993) examined the effectiveness of TQM in a survey of 44 small manufacturing companies in Valencia, Spain. In his study, effectiveness was measured on the basis of managers' satisfaction with the achievement of specific objectives and the estimation of the change in several performance variables over a one-year period believed to be a consequence of the quality programme. Overall, the managers indicated a high level of achievement of their TQM objectives, and some managers perceived that their TQM programs had resulted in highly positive effects. In particular, the most frequently cited effects were the development of a quality culture (with 77% of firms experiencing this effect) and improved training (72.7%). Increased profits and increased sales were less frequently cited, with 63.6% and 50% of firms experiencing these effects, respectively.

From their survey of 42 French SMEs regarding ISO 9000 certification, Guilhon et al. (1998) reported that the quality program had improved organizational performance (for example, commitment and process quality), but had not significantly improved financial performance (that is, sales, market share and profit). Guilhon et al. (1998) noted, however, that a large proportion of their sample was in the process of certification and this could have accounted for their findings.

Walley (2000) provided insights to the effect of TQM in SMEs in the UK farming sector. Respondents were asked to rate the impact of TQM

on a range of criteria. Based on the responses of 25 farmers who had implemented TQM (15.2% of the sample), Walley (2000) concluded that although some farmers had indicated that TQM had resulted in slight decreases in criteria such as 'cost efficiency' and 'profitability', on average TQM appeared to have a small positive effect on overall performance. However, criteria where TQM had a major impact were 'quality awareness' and 'employee morale' (Walley, 2000).

Anderson and Sohal (1999) sent a questionnaire to 670 small businesses in Australia. The survey contained questions pertaining to six quality variables (leadership; strategy, policy and planning; information and analysis; people; customer focus; and quality of process, product and service). Respondents were asked to rate, using a five-point scale, the impact of these variables on six measures of business performance (sales; exports; cash flow; employment levels; overall competitiveness; and market share). Sixty-two small businesses returned the completed questionnaire. Anderson and Sohal (1999) reported that quality practices and procedures were perceived to have the highest impact on the overall competitiveness of the business, followed by sales, market share, employment levels and cash flows. The practices and principles were perceived to have the least impact on exports.

Rahman (2001) studied the relationship between TQM practices and three business outcomes in SMEs in Western Australia. A questionnaire was developed which asked respondents to rate themselves on the extent to which they practiced 36 TQM practices. These questions pertained to the same six quality criteria examined in Anderson and Sohal's (1999) study. Business outcomes were defined in terms of revenue, profit, and the number of customers. Again, a self-rating scale was used to measure business outcomes. The questionnaire was sent to 250 SMEs, and 49 usable responses were received. Rahman (2001) reported that 'leadership', 'processes, products and services', 'people', and 'customer focus' were all significantly correlated with business outcomes.

Kaldenberg and Gobeli (1995) examined the link between TQM and performance in a healthcare context. A questionnaire was developed that covered seven categories of quality management practices (leadership, information and analysis, strategic planning, human resource utilization, quality assurance, quality results, and customer satisfaction). Respondents were required to provide self-assessments for each question to measure the extent to which quality practices were embraced. To measure business outcomes, respondents were asked questions pertaining to total annual revenue, total annual profit and the total number of new patients in a year. Comparative data was also obtained by asking respondents to indicate changes over the past three years. The questionnaire was sent to a sample of dentists in private practice in Oregon, US. A total of 334 dentists participated in the study. Kaldenberg and Gobeli (1995) found a positive relationship between most quality practices and business outcomes (revenue, profit, and new patients) over the three year period.

THEORETICAL DEVELOPMENT AND HYPOTHESES

TQM and performance

Preliminary evidence seems to indicate that TQM-adopting firms obtain a competitive ad-

vantage over firms that do not adopt TQM (Brah et al., 2002; Powell, 1995). SMEs that focus on continuous improvement, involve and motivate employees to achieve quality output and focus on satisfying customers' needs are more likely to outperform firms that do not have this focus. Thus, we can expect that to the extent an organization implements TQM practices, performance should be enhanced. The first hypothesis summarizes this expectation and provides a benchmark in which to examine TQM/performance relationship. Hence, we formulate the first hypothesis:

H₁: The degree of implementation of TQM practices is significantly associated with SME performance in southeast Nigeria.

As shown in the first hypothesis above, we relate the joint effect of selected TQM variables on SME performance. The independent variable consist the joint effect of leadership, training, team work, customer focus, and process management on one dependent variable - sale performance. The dependent variable is based on the managers' perception or self-assessment of performance because of lack of (or unwillingness to disclose) financial data such as annual profit, actual sales, market share. This would explain why prior research examining the relationship between TQM adopters and firm performance in SMEs has predominantly relied on managers' self-assessments of performance (see Agus and Abdullah, 2000). The choice of sales performance (not actual sales but perception of sales performance) as a proxy for SME performance is not far-fetched. First, most SMEs in Nigeria do not keep up-to-date financial records, while some do not have any accounting system, wherein their profit, market share, or actual annual sales can be determined. Secondly, most managers and supervisors of SMEs in Nigeria are unwilling and constrained to disclose financial data. As a consequence, self-assessment of sales performance is somewhat preferable as the managers can, through hunch and experience, determine, not necessarily giving exact sales figure; but rather, give sales estimate.

TQM Principles and Performance

Various authors have empirically tested some variables of Total Quality Management. According to reviewed literatures, these authors including Ou et al (2007) (customer focus, teamwork, Leadership, Supplier quality management, and process management); Nilsson et al (2001) (Leadership, customer focus, teamwork, process management, Supplier quality management); Samson and Terziovski (2008)(leadership, supplier

quality management, process management); Shammot (2011) (leadership, customer focus, teamwork, supplier quality management, product design); Al-khalifa et al. (2008) (leadership, quality culture, customer focus, training, process management, teamwork); Solis et al. (2007) (leadership, customer focus, quality culture, Supplier quality management, teamwork, process management, training, product design); Terziovski and Samson (1999) (leadership, supplier quality management, training, process management); Salaheldin (2009) (leadership, education and training, product design, supplier quality management); Fryer, Antony and Douglas (2007) (leadership, supplier quality management, quality culture, process management, training); Spendlove (1997)(leadership, customer focus, teamwork, process management, supplier quality management); Tari, Molina and Castejon (2007) (leadership, teamwork, customer focus, supplier quality management, process management) and Brah and Walley (2000) (customer focus, teamwork, process management, leadership).

On the other hand, there are many authors that have also empirically examined variables of company's performance. The authors include Adam et al (2001) (market share); Agus and Abdullah (2000) (market share, profit); Ou et al. (2007) (Customer satisfaction, and profit); Moreno-Luzon (1993) (profit, Market share, and customer satisfaction); Chi, Kilduff and Gargeya (2009) (profit, Market share); Brahet al (2002) (customer satisfaction, market share); Eng and Yusof (2003) (profit); Willson et al. (2000) (customer satisfaction, market share, and profit); Sila (2007) (market share, profit); Ronnback and Witell (2011) (profit, market share); Rahman (2001) (customer satisfaction and profit); Anderson and Sohal (1999)(market share, profit); Arumugam and Mojtahedzadeh (2011) (customer satisfaction); Flynn, Schroeder and Sakakibara (1995) (profit, customer satisfaction, and market share); Wernick (1991) (customer satisfaction, market share); Issac, Rajendran and Anantharaman (2004) (customer satisfaction, profit).

In the present study, we shall focus only on five principles of TQM because of their relevance to fast-food SMEs and prominence in extant empirical studies. Accordingly, the hypothesis of the second research question is divided into five sub-hypotheses as depicted.

Table 1 shows the second main hypothesis, which we split into five specific hypotheses to enable us address the second research question identified in the statement of problem. Following the preceding review, five TQM constructs and independent variables - leadership, customer fo-

Table 1: Hypotheses of TQM Constructs and firm sales performance

No.	Hypotheses
H ₂	Selected TQM principles are key predictors of firm sales performance
H _{2a} :	Leadership is a strong predictor of fast-food SME sales performance.
H _{2b} :	Customer focus is a strong predictor of fast-food SME sales performance.
H _{2c} :	Training is a strong predictor of fast-food SME sales performance.
H _{2d} :	Teamwork is a strong predictor of fast-food SME sales performance.
H _{2e} :	Process management is a strong predictor of fast-food SME sales performance.

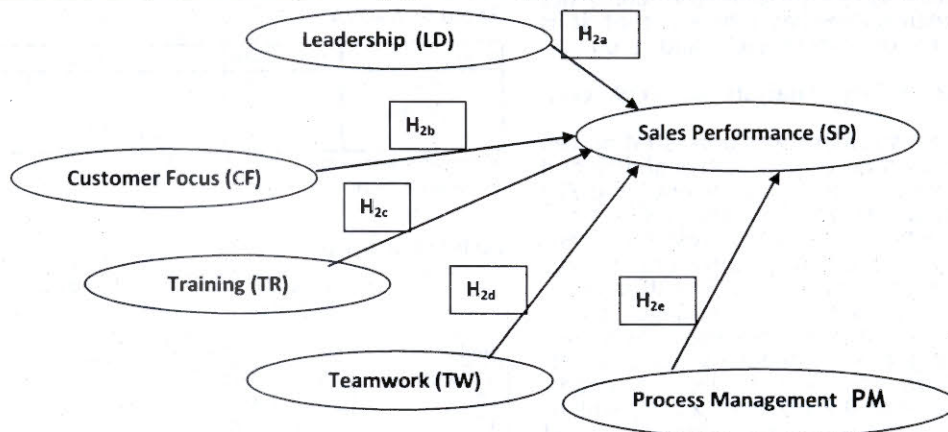


Fig1: Research Model of TQM construct on fast-food SME sales performance
Source: Authors' Conceptualization

cus, training, teamwork, and process management - seem to be reoccurring in extant literature and empirical studies within the SME domain.

Following the tabulated hypotheses in Table 1 above, Figure 1 depicts the study's research model. Five independent TQM constructs (leadership, customer focus, training, teamwork, and process management) are linked as predictors of one firm performance construct (sales performance).

METHODOLOGY

Purposive sampling was adopted in selecting the fast-food SME for this study. There are three reasons for the selection of fast-food industry: 1) The fast-food outlets are fast springing and growing due to growing presence of youths at Nnewi, Onitsha, and Awka metropolis; 2) Many of the fast food SMEs have survived over time, with rare case of any folding-up and; 3) The fast food SMEs seem to be enjoying high customer patronage.

Most of the fast-food SMEs selected have existed for at least three years. They are drawn from Nnewi, Onitsha, and Awka metropolis. For Awka metropolis, the following eleven fast-food were examined: Thrillers, Macdons, Nourisher, Chuckies, Crunchies, Chillers, Tetrizzini, Mr Biggs, Supreme Taste, and Pals. For Onitsha, the following eight fast foods will be examined: Spinach, MrBiggs, Crunches, Dreams, Five Star, DeNessa, McDons, and Garnish. For Nnewi metropolis, the following four fast-foods were studied: Mr Biggs, Tetrizzini, Kitchen-De-Royale, and Chicken Express. In all, the researcher studied twenty-three fast-food SMEs in the three metropolises. Given that two respondents (a manager and supervisor) were drawn from the twenty-three fast-food SMEs; hence, the population of this study was estimated to be forty-six (ie $23 \times 2 = 46$) and census sampling was adopted whereby all the 46 respondents were examined given the smallness of the population.

The Respondents of this study include managers and employees of the 23 selected SMEs; consequently 46 respondents were examined. Consistent with the work of Shamot (2011), Multiple Regression Model (MRM) was used to conduct the analysis with the aid of SPSS 21.0. The sample size of this study is 46, comprising of 2 managers drawn from each of 23 SMEs. The use of MRM is consistent with previous empirical studies, such

as Benson, Seraph, and Schroeder (1991), Adam, Flores, and Macias (2001), Brah and Lim (2006), and Willson et al. (2000). A structured 5.0 Likert-scale questionnaire was designed based on "strongly disagree" (1) to "strongly disagree" (5); (Al-Khalifa, & Aspinwall 2008; Joiner, 2007). The instrument was pretested for internal consistency using the Cronbach's alpha statistics. This was executed using 10 fast-food supervisors/managers, which were not included in the final analysis. The Cronbach alpha coefficient of the scale is 0.723, which is consistent with benchmark of 0.7 recommended by Pallant (2007) for social science research.

The rapid growth of the fast-food sector in the south-east Nigeria has warranted the selection of southeast Nigeria as the area of study and the fast food sector as the scope. Accordingly, due to their fast growing nature, three cities in the southeast where fast-food SMEs are prevalent are selected. They include: Onitsha, Nnewi, and Awka.

RESULT

Descriptive Statistics of TQM constructs

The results of descriptive analysis are listed in Table 2. The means and standard deviations of five independent variable constructs and one dependent variable constructs range from 3.01 to 4.42 and from 0.56 to 0.78, respectively.

Preliminary result from the descriptive analysis of Table 2 shows that going by mean ranking, customer focus has the highest mean score of 4.42 (and lowest standard deviation of 0.41) as predictor of SME performance. This is followed by leadership, teamwork, training, and process man-

Table 2: Descriptive Analysis of TQM constructs

Factor Name	Mean	Standard deviation
Leadership	4.13	0.51
Customer focus	4.42	0.41
Training	3.81	0.72
Teamwork	4.01	0.58
Process Management	3.01	0.82

agement respectively. Note that the construct with highest mean somewhat indicate that it is strongest predictor of performance, and so on.

Validity and reliability Analysis of TQM constructs

Although the instrument was pretested on ten managers of SMEs to determine its reliability and high overall Cronbach alpha coefficient of 0.723 was achieved, at this stage we further subject the actual data collected to reliability test on a construct per construct basis since different managers were administered with the questionnaire. The essence of this is to place stronger confidence on the instrument. Interestingly, as shown in Table 3 the respective Cronbach's alpha coefficient for each TQM construct is over the recommended benchmark of 0.7 (Pallant, 2007), which, again, strengthens the level of confidence placed on the data collected by the instrument for the final analysis. In addition, Principal Component and Varimax are used to confirm the extraction (or usage or adoption) of five constructs of TQM. The criterion for extracting critical factors is based on whether or not Eigen value is greater than 1. In addition, the authors used Cronbach's Alpha to examine internal consistency which is mainly used to assess the reliability of the proposed 7 constructs. If the value of Cronbach's Alpha is greater than 0.6, the reliability of the responding survey's results proves to be acceptable.

Table 3: Validity and reliability Analysis of TQM constructs

Factor Name	Eigen Value	Cronbach's Alpha
Leadership	2.85	0.85
Customer focus	3.73	0.92
Training	2.02	0.72
Teamwork	2.92	0.71
Process Management	2.23	0.74
Sales Performance	3.61	0.82

Table 4: Model Summary^b for first hypothesis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.967 ^a	.935	.931	2.213

a. Predictors: (Constant), PM, TW, LD, CF

b. Dependent Variable: SF

First Hypothesis

The first hypothesis sought to find if the degree of implementation of TQM practices is related to SME performance in southeast Nigeria.

Table 4 above depicts the model summary for the first hypothesis, showing the predictors (or independent variables) to include process management, teamwork, leadership, and customer focus, while sales performance is the dependent variable. Sales performance is used to proxy SMEs performance. The model summary box, particularly under the heading R Square, tells how much of the variance in the dependent variable

Table 5: ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.500	5	2.125		.000 ^a
	Residual	.000	41	.000		
	Total	8.500	46			

a. Predictors: (Constant), PM, TW, LD, CF, TR

b. Dependent Variable: SP (Sales).

Table 6: Coefficients

Model	Unstandardized Coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.333	.000			
LD	.000	.000	.000		.001
TR	.022	.000	.012		.003
CF	.333	.000	.919		.000
TW	.537	.000	.558		.000
PM	-.667	.000	-.627		.001

KEY:

Dependent Variable: Profit1 (Performance).

LD = Leadership; CF = Customer Focus; TW = Team work;

PM = Process Management.

(performance) is explained by the model (which includes variables of process management, teamwork, leadership, and customer focus) explains 93.5% of the variance in SME performance. This means other factors (constructs) not included in the model explains 6.5% of the variance. With a positively very strong R^2 of 93.5%, the first hypothesis is supported. Further insight is provided by Table 5 above.

To assess the statistical significance of the result, it is necessary to look in table 2 labelled ANOVA, which test the null hypothesis that multiple R in the population equals 0. The model in this case reaches statistical significance since Sig. = .000; this really means $p < 0.0005$ (see Pallant, 2007 p.158). Accordingly, we reject the null hypothesis and accept the alternate hypothesis; thus, we conclude that the degree of implementation of TQM practices is significantly associated with SME sales performance in Awka. This finding corroborates previous studies (for example Kaldenberg and Gobeli, 1995; Rahman, 2001) that have empirically established strong nexus between TQM and performance. The contribution of this study is the extension of this finding in fast-food SME context.

Second Hypothesis

The second hypothesis seeks to address the second research question, which is focused at identifying those TQM principles that best contribute towards successful performance of SMEs in the fast-food sector. Thus, the researchers wanted to know which of the variables included in the model contributed more to the prediction of the dependent variable. We find this information in the output box of Table 6, labelled Coefficients.

To compare the various variables, it is important we look at the standardised coefficients, not the unstandardised ones. 'Standardised' means that these values for each of the different variables have been converted to the same scale so that they can be compared.

In this case, we are interested in comparing the contribution of each independent variable; therefore we will use the beta values. Look down

the Beta column and find which beta value is the largest (ignoring any negative signs out the front) (see Pallant, 2007 p.159). In this case, the largest beta coefficient is .919, which is for Customer Focus. This means that this variable makes the strongest unique contribution to explaining the dependent variable (SME sales performance), when the variance explained by all other variables in the model is controlled for. This is followed by Process Management with a Beta value of -.627, which is slightly lower than the Beta value for Customer Focus, also makes a strong contribution to explaining the dependent variable. Team work accounts for the next contributor to explaining the dependent variable after process management, with a Beta value of 0.558. However, Leadership makes a weak contribution towards explaining the dependent variable as shown by its Beta value of .000.

For each of these variables, we check the value in the column marked Sig. This tells whether this variable is making a statistically significant unique contribution to the equation; thus, constituting a basis for accepting or rejecting the second hypothesis. If the Sig. value is less than .05 (.01, .0001, .000 etc), the variable is making a significant unique contribution to the prediction of the dependent variable and if greater than .05, we can conclude that that variable is not making a significant unique contribution to the prediction of the dependent variable (see Pallant 2007 p.159). This forms our decision criterion in that we reject the null hypothesis if Sig value is greater than .05. Accordingly, since the Sig value of all the dependent variables is less than .05, thus indicating that all dependent variable are making significantly unique contribution to the prediction of the dependent variable. Hence we reject the null hypotheses; and conclude that leadership, customer focus, teamwork, and process management contribute towards predicting SME performance. Though they all make contribution, however, customer focus makes the strongest contribution in predicting SME performance in fast food context.

DISCUSSION OF FINDINGS

In the main, the present study confirms the studies of previous researchers who attempted to use the practice of TQM to predict firm performance (see for example Adam et al 2001; Agus & Abdullah, 2000; Brah et al 2002; Rahman, 2001 etc.). The present study also corroborates with the findings of some studies. For instance, Nilson et al (2001) found that leadership and process management are stronger predictors of firm performance in the automobile industry.

However, while leadership and process management scored high after customer focus in the present fast-food industry, this finding indicates that what might constitute strong TQM predictor of firm performance can likely differ from industry or sector to sector. Other studies from other sector that do not find customer focus as core predictor performance are: Samson and Terziovski (2008) (leadership, supplier quality management, process management); Terziovski and Samson (1999) (leadership, supplier quality management, training, process management); and Salaheldin (2009) (leadership, education and training, product design, supplier quality management). Again, the import of this that TQM tenets that predict performance differ from industry.

Interestingly, the key finding of this study

being that customer focus is strongest predictor of performance confirms with a number of non-SME sector studies. For instance the following studies found support that customer focus is a very strong predictor of performance: Ou et al (2007); Shammot (2011); Brah and Walley (2000); Tari, Molina and Castejon (2007), and Solis et al. (2007).

When compared with previous studies executed in the SME sector, the findings of the present study seem to be a departure. It is discovered in this fast food SME study that customer focus is the strongest predictor of performance. For instance the study of Guilhon et al (1998) in a French study found 'quality programme' to be strongest predictor of performance. Also the UK study of Walley (2000) found no TQM variable as strong predictor of performance in the SME farming sector. Similarly, Anderson and Sohal (1999) reported that quality practices and procedures were perceived to have the highest impact on the overall competitiveness of the business. The work of Rahman (2001) reported that 'leadership', 'processes, products and services', 'people', and 'customer focus' were all significantly correlated with business outcomes; but did not report which construct is strongest predictor.

When taken together, the present study is an extension of knowledge stock in the literature of TQM as it relates to SMEs in the fast-food domain. The finding of this study, when put side by side with the findings of other previous studies, reveals that customer focus is a critical success factor for fast-food SMEs who implement TQM.

RECOMMENDATION, LIMITATION AND DIRECTION FOR FURTHER RESEARCH, AND CONCLUSION.

Recommendations

Managers of fast-food SMEs should continue to implement the tenets of TQM as these seem to be the precondition for competitiveness and success. To this end, owners of the fast-food outlets should continue to train their managers on the tenets of TQM via seminars and workshops.

Managers of fast foods in southeast Nigeria should emphasize and have strong customer focus (internal and external customer focus) for them to thrive in the fast growing and competitive fast-food sector. This is consistent with perspective that managers should understand and be able to manipulate perception as well as expectations of customers (Ewurum, 2001). We align with TQM experts that internal customer focus must precede external customer focus. Employees are the internal customers of management. Thus internal customer focus is the task of successfully hiring, training, and motivating able employees to serve the external customers well. The employees must be adequately trained and motivated so that they can enthusiastically move the TQM process forward. The process of meeting customer needs therefore begins internally (Ewurum, 2001).

Limitation and direction for further research

The major limitation of this study is the paucity of empirical study on TQM and SMEs performance in the Nigerian context. Most Nigerian studies accessed, dwelt only on challenges of SMEs but did not link TQM to SME's performance in the somewhat emerging fast-food sector. This situation of literature dearth has undermined the robustness of the literature review.

Two additional major limitations to this

study, which could be fertile ground for future research, are notable. First, this study used only five independent variables (or TQM tenets, such as Leadership,) that are widely used and reported in extant literature; however, a more robust study could be executed using additional dependent variables such as quality culture (Al-khalifa et al, 2008), supplier quality management (Ou et al, 2007), product design (Shamot, 2011). Second, this study used only one dependent variable (sales performance) to proxy performance. However, most empirical study reviewed (eg Terziovski, 2008 and Ou et al, 2007) adapted several dependent variables to proxy performance such as market share, profit, customer satisfaction. These studies used several independent and several dependent variables that were tested using structural equation model. Accordingly, the few independent variable and on dependent variable used in this study seems merely to lay the foundation for more robust study that will examine several independent and dependent variable to spring up.

Conclusion

The researcher concludes that the implementation of TQM in the SME fast-food context is germane to success and competitiveness of any fast food SMEs in the metropolitan cities in southeast Nigeria. In addition, this study concludes that customer focus is the strongest predictor of SME performance in the fast food context, wherein managers can build their core competency and create competitive advantage along the line of customer focus. Better still, this study reveals the need to avoid the 'me to' strategy common among SMEs, whereby they fail to develop their Unique Selling Proposition or core competency, but rather copy success factors of competitors. A customer focus approach stipulate that a competitive advantage can be built through an outside-in approach, that is, by finding out the extra thing the customer wants and work back into the company to develop it and build it into the firm's offer to the customer.

REFERENCES

- Adam, E.E., Flores, B.E., & Macias, A. (2001). Quality improvement practices and the effect on manufacturing firm performance: evidence from Mexico and the USA. *International Journal of Quality Management*, 11 (8), 1041-1051.
- Agus, A. & Abdullah, M. (2000). Total quality management practices in manufacturing companies in Malaysia: an exploratory analysis. *Total Quality Management Magazine*, 11 (8), 1041-1051.
- Ahire, S.L., Landeros, R. & Golhar, D. (1995). Total quality management: A literature review and an agenda for future research. *Production and Operations Management*, 13 (1), 277-307.
- Anderson, M. & Sohal, A. S. (1999). A Study of the Relationship Between Quality Management Practices and Performance in Small Businesses. *International Journal of Quality and Reliability Management*, 16(9), pp.859-877.
- Arumugam, V. C. & Mojtahedzadeh, R. (2011). Critical Success Factors of Total Quality Management and their Impact on Performance of Iranian Automotive Industry: A Theoretical Approach. *European Journal of Economics, Finance and Administrative Sciences*, Issue 33.
- Brah, S.A., Serene T.S.L. and Rao, B.M. (2002). Relationship between TQM and performance of Singapore companies. *International Journal of Quality and Reliability Management*, 19 (4), 356-379.
- Benson, P.G., Seraph, J.V. & Schroeder, R.G. (1991). The effects of organizational context on quality management: an empirical investigation. *Management Science*, 37(9), 1107-1124.
- Deming, E.W. (1986.) *Out of Crisis*, Cambridge, MA: MIT Center for Advanced Engineering.
- Eng, E.Q. & Yusof, S.M. (2003). A survey of TQM practices in the Malaysian electrical and electronic industry. *Total Quality Management*, 14(1), pp. 63-77.
- Ewurum, J. W. (2001). *The Living TQM in NEPA*. Enugu: Firsh Hand Publishers
- Flynn, B.B., Schroeder, R.G. & Sakakibara, S. (1995). The impact of quality management practices on performance and competitive advantage. *Decision Sciences*, 26(5), 659-691
- Guilhon, A., J. Martin, J. & Weill, M. (1998). Quality Approaches in Small or Medium-Sized Enterprises: Methodology and Survey Results. *Total Quality Management*, 9(8), 689-701.
- Hellsten, U. & Klefsjö, B. (2000). *TQM as a management system consisting of values, techniques and tools*. The TQM Magazine, 12(4), 238-244.
- Issac, G., Rajendran, C. & Anantharaman, R.N. (2004). A conceptual framework for total quality management in software organizations. *Total Quality Management*, 15(3), 307-344.
- Joiner, T. A. (2007). Total quality management and performance: The role of organization support and co-worker support. *International Journal of Quality and Reliability Management*, 24 (6), 617-627.
- Juran, J.M. (1993). Made in USA: a renaissance in quality. *Harvard Business Review*, 71, 42-50.
- Kaldenberg, D. O. & Gobeli, D. H. (1995). Total Quality Management Practices and Business Outcomes: Evidence From Dental Practices. *Journal of Small Business Management*, 33(1), 21-33.
- Kuei, C., Madu, C. N. & Lin, C. (2001). The relationship between supply chain quality management practices and organizational performance. *International Journal of Quality & Reliability Management*, 16(8), 864-872.
- Moreno-Luzon, M. D. (1993). Can Total Quality Management Make Small Firms Competitive? *Total Quality Management*, 4(2), 165-181.
- Nilsson, L., Johnson, M.D., & Gustafsson, A. (2001). *The impact of quality practices on customer satisfaction and business results: product versus service organizations*. *Journal of Quality Management*, 6 (14), 5-27.
- Olutunla, G. T. & Obamuyi, T. M. (2008). An empirical analysis of factors associated with the profitability of SMEs in Nigeria. *African Journal of Business Management*, 2(10), 195-200.
- Ou, S. C., Liu, F. C., Hung, Y. C., & Yen, D. C. (2007). The Effects of Total Quality Management on Business Performance: Evidence from Taiwan Information-Related Industries. Taiwan: Department of Accounting and Information Technology.

- Pallant, J. (2007). *SPSS Survival Manual: A step by step Guide to Data Analysis using SPSS for Windows (3rd edition)*. London: McGraw Hill Open University Press.
- Parkin, M. A. & Parkin, R. (1996). The Impact of TQM in UK SMEs. *Industrial Management & Data Systems*, 96(4), 6-10.
- Powell, T.C. (1995). Total quality management as competitive advantage: A review and empirical study. *Strategic Management Journal*, 16 (1), 15-37.
- Rahman, S. U. (2001). Total Quality Management Practices and Business Outcome: Evidence From Small and Medium Enterprises in Western Australia. *Total Quality Management*, 12 (2), 201-210.
- Ronnback, A. & Witell, L. (2011), The Impact of quality management on business performance - A comparison between manufacturing and service organizations. Unpublished Paper: Lund University.
- Samson, D. & Terziovski, M. (1999). The Relationship Between Total Quality Management Practices and Operational Performances. *Journal of Operations Management*, 17(4), 393-409.
- Shea, J. & Gobeli, D. (1995). TQM: The Experience of Ten Small Businesses. *Business Horizons*, 38(1), 71-77.
- Shammot, M. M. (2011). Quality Management Practices on Organizational Performance, and Customer Behaviour. *European Journal of Economics, Finance and Administrative Sciences*, Issue 34.
- Singh, P. J., Feng, M., & Smith, A. (2006). ISO 9000 series of standards: comparison of manufacturing and service organizations. *International Journal of Quality & Reliability Management*, 23(2), 122-142.
- Solis, L. E., Rao, S. S., Raghu-Nathan, T.S., Chen, C. Y., & Pan, S. C. (1998). Quality management practices and quality results: a comparison of manufacturing and service sectors in Taiwan. *Managing Service Quality*, 8(1), 46-54.
- Spendlove, H. (1997). Quality, Standards and Survival. *Manufacturing Engineering*, 119(4), 205-208.
- Sousa, R. & Voss, C.A. (2002) Quality management re-visited: A reflective review and agenda for future research. *Journal of Operations Management*, 20 (3), 91-109.
- Sun, H. (2001). Comparing Quality Management practices in the manufacturing and service Industries: Learning opportunities. *Quality Management Journal*, 8(2), 53-71.
- Sun, H. & 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*, 20(4), 421-442.
- Olise, M. C., Nkamnebe, A. D., Ukenna, S. & Okoli, M. I. (2013, May 17 - 22). *Challenges and Success Drivers of Motorcycle Spare-Parts Private Label Brands In Southeast Nigeria*. International Academy of African Business and Development (IAABD) Conference, Ghana Institute of Management & Public Administration, Accra, Ghana. <http://www.iaabd.org/pdf/2013peerReviewed.pdf>
- Terziovski, M. & Samson, D. (1999). The Link Between Total Quality Management Practice and Organisational Performance. *International Journal of Quality and Reliability Management*, 16(3), 226-237.
- Walley, K. (2000). TQM in Non-Manufacturing SMEs: Evidence From the UK Farming Sector. *International Small Business Journal*, 18(4), 46-61.
- Watson, J., Kober, R., Ng, J., & Subramanian (2003). The Impact of TQM Adoption on SME Financial Performance. 16th Annual Conference of Small Enterprise Association of Australia and New Zealand.
- Wernick, S. (1991), TQM Keys Job Shop Profitability, Survival, *Quality*, 30(5), 15-17.