

Total Quality Management and Performance of Telecommunication Firms

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Abstract: This study examines the link between Total Quality Management and performance of telecommunication firms in Nigeria. The research instrument utilized for the study was completed by 122 respondents drawn from two leading telecommunication firms (MTN and Globacom) in Nigeria. Utilizing the regression technique, results of data analysis indicate that TQM practices such as process improvement and employee empowerment significantly influence firm performance. Top management commitment was found not to have a relationship with organizational reputation. It is suggested that employee contribution not only to work processes but also to decision making, encouragement to set objectives for themselves and motivation towards their work enhance their understanding and commitment to their job and the organization at large.

Key words: Total quality management, telecommunication, process improvement, firm performance, employee empowerment

INTRODUCTION

Total Quality Management (TQM) can be viewed as a strategic attempt of a firm's management directed towards the harmonization and continuous improvement in all functional aspects of an organization with the aim of satisfying customer's need (Oakland, 2014). It is also an important management tool that supports the achievement of business excellence (Bateman and Snell, 2007; Satish and Srinivasan, 2010). Service Industry could arguably be one of the most important industries in the provision of valuable activities which generate customer satisfaction. The development of service industry has influenced global business practices and transformed it through competitive dimensions, customer expectations and technological inclusions. Through the aid of TQM top executives can now fully inspires members of their organisation to be innovative and committed to their daily work and practice self-training as possible means to achieving better organization performance but also improved customer satisfaction. However, there is a need to understand the different characteristics of services for a more productive implementation of TQM in a service organization. TQM practices in service organizations includes customer focus top-management commitment training and education, continuous improvement and innovation performance measurement benchmarking quality information employee involvement employee encouragement and supplier management (Talib,

2013). Prior studies on total quality management had different independent measures and were conducted in different contexts which justify the need for the proposed study. However, there is still a gap in investigating TQM practices in the Nigerian telecommunication industry in a manner that ensures robust opinions drawn from more than one firm. In resolving this situation, two leading firms MTN and Globacom Nigeria constitute the respondents base for this research. The present study identifies that the Nigeria telecommunication industry presently plays a very sensitive role in the nation's economic development. For instance, the industry's contribution to GDP has significantly risen from 1.91% in 2006 to 8.69% in 2013. Possible expectations are that the industry's impact will yet rise especially with the on-going five-year Strategic Management Plan (SMP) being implemented by the Nigerian Communications Commission (NCC). However, it is worrisome to identify the high rate of porting activities in the sector, especially in the year 2013. According to the Nigerian Communication Commission data report, a total number of 84,777 lines were ported from other networks (incoming) while 72,655 lines were ported to other networks (outgoing). Table 1 reveals the breakdown of these figures among network providers. Although, one may be posed to appreciate the active competition in the industry, there may also be indications that customers tend to switch from one subscriber base to FROM TO another because of dissatisfactions. These facts could also reveal possibilities of inadequate

Table 1: Total numbers ported in Nigeria telecommunication industry as at 2013

Variables	Incoming	Outgoing	Values
MTN	4,908	29,452	34,360
GLO	9,830	10,139	19,969
AIRTEL	46,457	26,019	72,476
EMTS	23,582	7,0400	30,622
Total porting Activities through All networks	84,727	72,650	157,427

Nigerian Communications Commission

implementation of total quality management practices among network service providers. A situation that reveals a need for investigations into the quality management practices of the Nigeria telecommunications industry with special focus on the mobile (GSM) market segment.

Therefore, this research intends to investigate how total quality management practices such as: top management commitment, process improvement, benchmarking and employee empowerment has influenced performance outcomes within Nigeria's telecommunications industry. It is expected that outcomes from this research would have significant implications on telecommunication industry players since it would direct them on proper policy measures that will yield better stakeholder satisfaction. The broad objective is further broken down as to:

- Identify the effect of top management commitment on organization reputation
- Determine how process improvement covaries with customer's satisfaction
- Examine the extent to which employee empowerment influences organization effectiveness
- Explore the impact of employee empowerment on customer's satisfaction

Literature review

Top management commitment and organizational reputation: Lange *et al.* (2011) in a review of past literature posited that the description of organizational reputation reflects a "generalized awareness or visibility of the firm, perceived predictability of organizational outcomes and behaviour and perception of the overall organization as good, attractive and appropriate". Pfarrer *et al.* (2010) measured firm's reputation based on whether they appeared among the top twenty-five firms listed in fortune's "Most Admired Companies" and Wall Street Journal/Harris Interactive "Corporate Reputation" list. In another study, Bear *et al.* (2010) investigated the impact of Board diversity and Gender composition on CSR and Firm reputation. The outcome of their study showed

that diversity of board resources was not statistically significant with firm reputation. According to Helm (2011) employees of the firm could be very instrumental in top management's pursuit of enhanced corporate reputation depending on how satisfied with their job and their affective commitment to the organization. Sequel to the above literature revived, the following hypothesis is hereby proposed.

- H₁: Top management commitment does not have a significant effect on organization reputation

Process improvement and customer satisfaction:

Customer satisfaction is thought to be the key accomplishment components for every profit masterminded relationship. As Dimitriades (2006) asserted, satisfied customers tend to be less affected by contenders, less esteem sensitive and stay dedicated longer. Botha and Rensburg (2010) contended that organizations targeting process improvement must go beyond traditional approaches and rather integrate the concept of customer experience management. Meanwhile, process improvement, rather than product/service improvement is referred to in this present research because process improvement is the actual activity that makes any product/service worthwhile. Drawing from Davenport (1993)'s perspective, we suggest that process improvement involves organizational attempts to be innovative with the ordering of work activities across time and place with the end of enhancing customer and organizational value. Goetsch and Davis (2010) agree that process improvement is a strategic element of total quality Management. Michel *et al.* (2009) suggested that improvement can enhance a firm's efforts to reduce failures on service recovery. Further to the above, the following hypothesis is hereby proposed.

- H₂: Process improvement does not covary with on customer's satisfaction

Employee empowerment and organizational effectiveness:

According to Bowen and Lawler (1992) employee empowerment occurs when they are: informed about the firm's performance, rewarded as performance improves, allowed to contribute to the firm's performance and empowered to make important decisions in the firm. Empirical evidence does exist for the relationship between employee empowerment and organizational effectiveness. Wang, Chich-Jen and Mei-Ling scaled organizational effectiveness based on firm's innovative degree, market share compared to competitors and the firm's staff

turnover. Meanwhile, Zhang and Bartol (2010) emphasized that empowered employees would increasingly be creative on their job. Manzoor (2012) observed that employee motivation as a tool for empowerment can result in higher levels of organizational growth, prosperity and productivity. Relating empowerment to a technological advanced work environment, Kuo *et al.* (2010) observed that work design and employee empowerment yield positive and direct influence on commitment of employees. More critically, Pieterse *et al.* (2010) revealed that when followers are psychologically empowered they tend to exhibit innovative behaviours through the guidance of transformational leaders. Therefore, the following hypothesis is envisaged.

- H₃: Employee empowerment does not influence organizations effectiveness

Employee empowerment and customer satisfaction:

According to Goetsch and Davis (2010) employee empowerment could take the form of committing them to think and make decisions that concern their job. Ro and Chen (2011) further highlighted that being customer oriented, provision of reward systems, communications about service standards and trainings on services serve as strategies of employee empowerment. This claim can be empirically buttressed from Webster and Sundaram (2009)'s study that found that service provider's communication style is a significant determinant of customer satisfaction. Naeem and Saif (2010) studied the effect of employee empowerment and customer satisfaction in the Pakistan Banking sector. Drawing samples from a foreign bank with employee empowerment and a local public bank with no employee empowerment, their regression model did not reflect any relationship between employee empowerment and customer satisfaction. In another investigation of the effect of empowerment and job satisfaction on customer's perception of service quality, Gazzoli *et al.* (2010) reported that a significant impact exist among the variables. It is on this note that the following hypothesis is proposed.

- H₄: Employee empowerment has no impact on customer satisfaction

MATERIALS AND METHODS

The method for carrying this study is the use of survey design. This method of research design was found suitable for the research since it sought to gather

responses from samples through the use of questionnaires. The study is based on two major telecommunication firms in Nigeria: MTN and Globacom Nigeria. These two firms are quite central to the Nigerian telecommunication industry because they occupy the largest and second largest positions in the GSM sub-sector of the industry. It is believed that responses gathered from these two mobile giants will provide necessary insight towards advancing knowledge about quality management issues in the industry.

The design of the research instrument benefitted from earlier works such as that by Beaumont and Sohal (1999). Information derived through self-administered questionnaire formed the basis for the study. The total sample size of 160 respondents was determined for this research consisting of top management, functional managers, unit and departmental executives of each of the telecommunication firms under study. The questionnaire used for the research was divided into sections 'A' and 'B'. Section A comprises of items which are personal information about the respondents while Section B consist of questions on specific measures of TQM and organizational performance. Cronbach Alpha reliability index was 0.851 which surpasses the minimum 0.7 (Pallant, 2005).

RESULTS AND DISCUSSION

Total 160 questionnaires were administered but 122 questionnaires were returned representing 76.25% response rate while 38 questionnaires representing 23.75% were not returned. The 76.25% questionnaires returned is reasonable enough for the research work to be based. The distribution shows that the majority of respondents in this research are male consisting 88 (72.1%) of the total respondents while female were 34 (27.9%) of the total population of the respondents. The 88 respondents (72.1%) are single, 33 respondents (27.1%) are married and 1 respondent (0.8%) are either divorced, widows or widowers. Also, 61 respondents (50%) have worked for <5 years in the industry, 44 respondents (36.4%) have worked for between 6-10 years, 15 respondents holding (12.4%) are between 11-15 years, 1 respondent (0.8%) have worked for above 16 years. The implication of this is that the industry have, in the past five years had tendencies of high rate of labour turnover. 68 respondents holding (55.7%) are under 25 years, 35 respondents holding (28.7%) are between 26-35 years, 15 respondents (12.3%) are between 36-45 years and only 4 respondent (3.3%) are 46 year and above. This reflects that the youthful age is actively engaged by the Nigerian

Table 2: Results of regression analysis

Variables independ.-Depend	B	SE	t-values	p-values	R ²	Adj R.	F-values
Top mgt. commit-Org. reputation	0.13	0.06	1.46	0.147	0.018	0.01	2.140
Process imprv.-cust satis.	0.36	0.09	4.16	0.000	0.127	0.12	17.32
Emp. empow-Org eff.	0.49	0.05	6.08	0.000	0.237	0.23	36.98
Emp. empow-Cust sats.	0.22	0.06	2.45	0.000	0.048	0.04	6.010

telecommunications industry such that as employees increase in age their chances of retention in the industry are narrowed. Total 8 respondents (6.6%) are of the executive management Cadre, 32 respondents (33.3%) occupy senior managerial positions and 58 respondents (60.4%) holding the position of functional manager, including supervisory roles.

Regression analysis was used to measure all the objectives in this study. The result from Table 2 shows that the extent to which the top management commitment has any effect on Organizational reputation is 1.8% (i.e., R² = 0.18). This relationship is not found to be significant (p>0.1, β = 0.13). Therefore, the conclusion is to accept the null hypothesis which suggests that there top management commitment does not impact on organizational reputation. Prior research works found that different dimensions of top management commitment have a relative impacts on organization reputation across various firms (Alotaibi, 2014; Laohavichien *et al.*, 2009). However, respondents that make up the framework of the present study suggested that top management commitment to quality management practices does not necessarily increase organizational reputation. This might therefore suggest that whatever perception customers and the larger stakeholder’s community of the firm have about the firm could be a result of a more direct relationship with sales persons or customer care personnel of the firm. It will therefore mean that at best, top management should ensure that organizational policies and motivational strategies targeted at enhancing quality relationships are put in place to guide firm’s staff who directly relate with customer.

Also, in testing whether or not process improvement covaries with customer satisfaction the result from the table indicate that process improvement actually has an effect on customer satisfaction (R² = 0.127; 12.7%). The relationship is found to be positive (β = 0.36, t = 4.16, p<0.05) indicating that the null hypothesis should be rejected. Therefore, organizations are admonished to take up initiatives that aim at increasing success and reducing failures along the organizational value chain. PI must be adopted as a process of identifying and improving production/service quality continuously by reducing waste, simplifying the production line while yet maintaining high quality standards for customer benefits (Ogunnaike *et al.*, 2014). Telecommunications firms must

reduce chances of customer dissatisfaction, evidenced through increasing rates of customers porting out of one network to others. Therefore, consistent with the suggestion by Sadlkoglu and Zehir (2010) there must be continuous searching for developing new or improved methods in the process of converting inputs into customer beneficial outputs.

More so, results from regression analysis reveal that employee empowerment influences organizational effectiveness (R² = 0.23, 23%; β = 0.49, indicating positive relationship; t = 6.08; p<0.05). Therefore again, the null hypothesis has been contradicted and thus, should be rejected. Consistent with study carried out by Olubusayo *et al.* (2014) the issue of the employee’s contribution as discussed in this study not only to work processes but also to decision making, encouragement to set objectives for themselves, motivated towards their work and family life enhance their understanding and commitment to their job and the organization at large.

Predictions about the degree of possible impact of employee empowerment on customer satisfaction is also found to be evident and positive (R² = 0.48 that is 4.8%; β = 0.219). Although and quiet surprisingly, this relationship is quiet weak the evidence of relationship is established (p<0.05; t = 2.45). In the same vein, null hypothesis is rejected. Accordingly, Employee empowerment provokes the employees to come up with excellent ideas and participate in quality improvement plans and programs which alerts the individual employees about “who is our customer”, “what are their requirements”, how to satisfy them becomes the main agenda for each employee. Therefore, they begin to target satisfying each individual customer, rendering quality based products and services and performing the operations within limits of the quality requirements. Ultimately the end customer is satisfied.

Managerial implications: This research aimed at investigating the relationship between total quality management and performance of the Nigerian telecommunication industry. Top management commitment, continuous improvement on work processes and employee empowerment were matched against significant aspects of firm expectation such as organizational reputation, customer satisfaction and organizational effectiveness. Generally, indications are that quality management practices, though relating with

significant aspects of organizational outcomes, yet needs more intensified support from top management and indeed, all members of firms operating in telecommunications industry.

Investigations into quality management should be a continuous task, since the success of organizational value chain depends largely on firm's commitment to its quality procedures. This research work is found to be relevant at this time when competitiveness in the telecommunications industry has become stiffer as evidenced in the Nigerian Communications Commission reports of porting activities in the industry. We suggest that firms should be more conscious about tracking customer's feelings and interests about their products and services. Again, telecommunication firms in the spirit of stewardships to stakeholders should adopt international best practices without compromising standards as they offer products and services. Their adoption of the tenets of TQM should not be merely to build on quality but to achieve highest quality standards.

CONCLUSION

This study has revealed that Total quality management still remains a very crucial area of research especially in developing economies. TQM in the Nigerian telecommunication industry remains an aspect that should be closely monitored. True adoption of quality management measures and initiatives will eventually be highly beneficial to telecommunications providers. Customer satisfaction, for example, will result in loyalty, retention and the willingness to suggest the firm's products to friends. Whatever perception investors have about a firm's reputation will again determine whether or not such firm will enjoy continued support of investing parties. The Nigeria telecommunication industry is a promising one, therefore, it calls for close measurement and stiffer monitoring of advances towards higher quality standards.

This study was limited to cover telecommunication firms and only two among the existing players in the industry. Further research can attempt to investigate and seek opinion based on wider industry coverage. Again, whereas in this study the focus was on gathering opinion from the firms, studies that reflect comparative opinion of customers and firms can be carried out. This could help gain a clearer picture about what kind of policies to design to guide quality initiatives, how to determine whether or not firms are actually offering quality.

REFERENCES

- Alotaibi, F.M.S., 2014. Impact on quality culture of total quality management practices factors. *Intl. J. Bus. Econ. Dev. (IJBED.)*, 2: 23-45.
- Bateman, T.S. and S.A. Snell, 2007. *Management: Leading & Collaborating in a Competitive World*. 7th Edn., McGraw-Hill, New York, USA.,.
- Bear, S., N. Rahman and C. Post, 2010. The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *J. Bus. Ethics*, 97: 207-221.
- Beaumont, N. and A. Sohal, 1999. Quality management in Australian service industries. *Benchmarking Intl. J.*, 6: 107-125.
- Botha, G.J. and A.C.V. Rensburg, 2010. Proposed business process improvement model with integrated customer experience management. *South Afr. J. Ind. Eng.*, 21: 45-58.
- Bowen, D.E. and E.E. Lawler 3rd., 1992. The empowerment of service workers: What, why, how and when. *Sloan Manage. Rev.*, 33: 31-39.
- Davenport, T.H., 1993. *Process Innovation: Reengineering Work through Information Technology*. Harvard Business School Press, Boston.
- Dimitriades, Z.S., 2006. Customer satisfaction, loyalty and commitment in service organizations: Some evidence from Greece. *Manage. Res. News*, 29: 782-800.
- Gazzoli, G., M. Hancer and Y. Park, 2010. The role and effect of job satisfaction and empowerment on customers' perception of service quality: A study in the restaurant industry. *J. Hospitality Tourism Res.*, 34: 56-77.
- Goetsch, D.L. and S. Davis, 2010. *Quality Management for Organizational Excellence*. 6th Edn., Pearson Higher Education, Upper Saddle River, New Jersey, USA.,.
- Helm, S., 2011. Employee's awareness of their impact on corporate reputation. *J. Bus. Res.*, 64: 657-663.
- Kuo, T.H., L.A. Ho, C. Lin and K.K. Lai, 2010. Employee empowerment in a technology advanced work environment. *Indust. Manage. Data Syst.*, 110: 24-42.
- Lange, D., P.M. Lee and Y. Dai, 2011. Organizational reputation: A review. *J. Manage.*, 37: 153-184.
- Laohavichien, T., L.D. Fredendall and R.S. Cantrell, 2009. The effects of transformational and transactional leadership on quality improvement. *Qual. Manage. J.*, 16: 7-24.
- Manzoor, Q.A., 2012. Impact of employees motivation on organizational effectiveness. *Bus. Manage. Strategy*, 3: 1-12.

- Michel, S., D. Bowen and R. Johnston, 2009. Why service recovery fails: Tensions among customer, employee and process perspectives. *J. Serv. Manage.*, 20: 253-273.
- Naeem, H. and M.I. Saif, 2010. Employee empowerment and customer satisfaction: Empirical evidence from the banking sector of Pakistan. *Afr. J. Bus. Manage.*, 4: 2028-2031.
- Oakland, J.S., 2014. *Total Quality Management and Operational Excellence: Text with Cases*. 4th Edn., Routledge, New York, ISBN-13: 978-0415635509, Pages: 500.
- Ogunnaike, O.O., A.S. Ibidunni and S.A. King, 2014. Assessing the link between service innovation and performance in telecommunication industry. *Sci. J. Bus. Manage.*, 2: 16-23.
- Olubusayo, F.H., I.A. Stephen and O. Maxwell, 2014. Incentives packages and employees' attitudes to work: A study of selected government parastatals in Ogun State, South-West, Nigeria. *Int. J. Res. Bus. Soc. Sci.*, 3: 63-74.
- Pallant, J., 2005. *SPSS Survival Manual: A Step by Step Guide to Data Analysis using SPSS for WINDOWA*. Version 12-14, Allen and Unwin, New South Wales, Australia.
- Pfarrer, M.D., T.G. Pollock and V.P. Rindova, 2010. A tale of two assets: The effects of firm reputation and celebrity on earnings surprises and investors' reactions. *Acad. Manage. J.*, 53: 1131-1152.
- Pieterse, A.N., D.V. Knippenberg, M. Schippers and D. Stam, 2010. Transformational and transactional leadership and innovative behavior: The moderating role of psychological empowerment. *J. Organiz. Behav.*, 31: 609-623.
- Ro, H. and P.J. Chen, 2011. Empowerment in hospitality organizations: Customer orientation and organizational support. *Int. J. Hospitality Manage.*, 30: 422-428.
- Sadikoglu, E. and C. Zehir, 2010. The relationship between Tqm practices and organizational performance: An empirical investigation. *Intl. J. Prod. Econ.*, 127: 13-26.
- Satish, K.P. and R. Srinivasan, 2010. Total quality management and innovation performance: An empirical study on the interrelationships and effects. *South Asian J. Manage.*, 17: 8-22.
- Talib, F., 2013. An overview of total quality management: understanding the fundamentals in service organization. *Int. J. Adv. Qual. Manage.*, 1: 1-20.
- Webster, C. and D.S. Sundaram, 2009. Effect of service provider's communication style on customer satisfaction in professional services setting: The moderating role of criticality and service nature. *J. Serv. Marketing*, 23: 103-113.
- Zhang, X. and K.M. Bartol, 2010. Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation and creative process engagement. *Acad. Manage. J.*, 53: 107-128.