

The Relationship between Total Quality Management Practices and Their Effects on Firms Performance in Palestine

Nermeen Sayyad¹

Abstract

The purpose of this article is to examine the relationship between Total Quality Management (TQM) practices and their effects on firms' performances' in Palestine. It also aims to discuss management commitment, employee involvement, training and education, reward and recognition on quality improvement within 57 Palestinian firms. The study employs survey data collected from Palestinian manufacturing and service firms. The results of this study revealed that management commitment, employee involvement, training, education, rewards and recognition are significantly positively associated with firms' quality improvement practice. It was perceived that employee involvement was a dominant factor for quality improvement; it was associated with significant improvements in firms' quality improvement.

Keywords: Total quality management, training, assurance, quality improvement firms, Palestine.

1 Introduction

Total Quality Management as a management approach came into being in the 1950s; however, its popularity increased mainly in the 1980s. The aspect of total quality makes descriptions of elements such as culture, organization, and attitude of an organization as it strives to provide its customers with goods and services that satisfy their needs. As such, quality needs to rein in all aspect of the organization's operations with the determination that all performances are done right in the initial time while also eliminating the different aspects of defects from during the

¹ Faculty of Business & Economics, Al-Quds University, Palestine

operations. As such, Total Quality Management refers to the strategy by which management and employees make full engagement in the continuous improvement of goods and services' productions.

Different total quality management strategies have been explored by managers and consultants across the world. From the implementation of such policies, it is evident that there has been a significant performance improvement in a majority of firms (Arumugam et al. 2008). Ideally, the three major aspects determining the adoption and pursuance of total quality management practices for an organization attributes an improvement in an organization's competitive edge both in the local and global perspectives, an overall success in business performance, and a differentiation in the produced products and services (Dooyoung, Kalinowski, & El-Enein, 1998).

The management of a quality process initiates at the start of the project and ends at the achievement of the desired quality standards. Every employee within a firm has some level of responsibility in contributing towards the overall improvements in the enterprise. Among the employees is the top management, the major decision-making organ in every organization. For a significant impact on the performance of business from the implementation of TQM practices encourages the management team to design organization that provides for a shared open-minded approaches to the various problems that the agency intends to address (Martinez-Costa, & Jimenez-Jimenez, 2009). Such a perspective is essential in the establishment of an appropriate organizational culture and strategy that fosters on the better learning, teamwork operations, and adoption of other human resource practices necessary for the development of new knowledge into operations. Based on that consideration, such an organization establishes a ground for quality improvement and thus an overall advanced performance of the organization. Whenever an individual firm undertakes the process of performing a particular task, it is always known that the expectation in the management's mind is that the task is not only a success and completed within the stipulated time, but equally of the highest standard of quality (Fotopoulos & Psomas, 2010). The achievement of such a perspective remains the challenge of every individual performer in the firm as through the combination of their different efforts the project is likely to end in success. As such, depending on the conditions available, every performance undertaken is evaluated either as inferior or superior (Dean, & Bowen, 1994). Of all the factors attributed to an individual project performance, quality remains the ultimate target in ensuring the satisfaction of all stakeholders, most especially the customers.

Based on such an overview, this paper analyzes the total quality management practices and the evaluation of their effects on organizational performances in Palestine.

2 Literature Review

2.1. Total quality management is a management perspective that gained popularity in the 1980s. Before then, it is evident that a significant number of US firms lost a substantive market share both locally and in the international front, an occurrence that had previously not been experienced. Such a downshift had significant effects on the economy, thus requiring the adoption of new productivity improvement programs to get back into the competitive edge. Among the most probable programs was total quality management. Since then, different pieces of literature have had publications of both the success and failures in the implementation of total quality management practices. Ideally, a clear indication that other factors are contributing towards the successful implementation of total quality management practices rather than the practices themselves (Martinez-Costa, & Jimenez-Jimenez, 2009).

2.2. The quality management concept was recognised in Japan in the late 1930s specifically after the World War II. And then, several firms in the manufacturing sector were focused on enhancing quality and utilising tools that directly aim to control quality at these firms (Demirbag et al., 2006; Talib et al., 2010). Furthermore, both USA and UK accepted the idea of quality management (QM) especially in manufacturing sector in those countries. Subsequently, QM has been recognised widely in several international standards such as in the ISO 9000 and the idea of QM was largely accepted these standards (Sachdeva et al., 2007). Several principles were recognised at each TQM practices and the principles are clarified in figure (1);



Figure1. Principles of TQM practices (source: Northlink College, 2015)

Total quality management concept remains a modern management paradigm, an aspect stating that quality management philosophy depends entirely on individual ideas and principles that an organization's management can adopt and implement to achieve a desired best possible performance (Irani, Beskese, & Love, 2004). One element of vital importance is the fact that achievement of quality management occurs only whenever the quality concept is used in all the process in the organization from resource acquisition to customer service in the post product or service delivery (Martinez-Costa, & Jimenez-Jimenez, 2009). Besides, quality management achievement requires the progressive improvement of the different functions in an organizational setting. From a generalized overview, total quality management comprises of quality planning, control, assurance, and improvement (Irani, Beskese, & Love, 2004). With an address on the four primary components of total quality management, every firm stands the chance of significantly enhancing its performance and a further establishment in the highly competitive markets. From an in-depth perspective, it is critical that an organization's perspective on quality plays an essential role in determining the individual approach that an organization would use in practicing quality management. With continuous improvement, customers focus, and function integration is standing as the core concepts of total quality, organizations must, therefore, follow already known standards and conventional total quality management practices to successful quality management implementation (Honarpour & Asadi, 2012). Besides, the

leading practices attributed to total quality management include a commitment from the top management, directional processes, customer as the main center of attention, the commitment of employees, the building of supplier relationships, matrices, and the adoption of practical problem-solving approaches (Agus, 2004). It is based on effective analysis and evaluation of the above aspects that an organization could successfully attain total quality management.

2.3. Employees Training and TQM

According to Zakuan et al. (2012) considered training as an important factor that boosts employees' efforts towards improvement. To him, quality training includes educating and training of employees at all levels in the organization with an intention of broadening their knowledge on quality issues and programs and providing them with information about the organization's quality mission, vision and general desired direction. According to Jamali et al. (2010), employee training is one of the most important requirements in a successful TQM implementation. Management personnel, supervisors and other employees require skills and knowledge on quality dimensions and management as well as their roles in TQM implementation. Owing to the fact that market quality needs are very dynamic, organization must ensure continuous employee development and training on quality management. As Boidoun (2003) cited, Mathews et al. (2001) points out that employee training that is focused on quality management determines how effective an organization's quality management initiatives will be. While to Zhang et al. (2000), investment in employee training and development is a critical component to successful TQM implementation. Omware (2012) identified two elements which must be considered before training employees on quality. These are: Knowledge and understanding of the quality management process and an understanding on quality management tools. A TQM training program must equip employees with an understanding on the TQM program and their role in it. Findings of Jamali et al. (2010) in their study titled: TQM Implementation: An Investigation of Critical Success Factors identified training as one of the most critical factors in successful implementation of TQM. Implementation of TQM requires adequate relevant employee's skills and knowledge on quality which can only be achieved through continuous training. Training empowers employees to take part in continuous improvement initiatives that are essential in TQM implementation (Oluwatoyin & Oluseun, 2008). Employees at all levels must accept quality education and training as it helps employees at their levels to understand quality management initiatives and their roles in implementing TQM (Arshida & Agil 2012).

An empirical study conducted by Samir (2003) on critical factors of TQM in Palestinian organizations showed a positive relationship between employees training and education and successful implementation of TQM. It associated employee training and education with employee empowerment and improved performance of their roles in quality management. Another study by Yu Chu & Wang (2001) on critical factors affecting the implementation decisions and processes of ISO quality management systems in Taiwan's public sectors revealed that team leaders involvement, employees training and development, employee awareness among other factors are critical in implementation of quality initiatives. Employees feel involved in quality management initiatives when given timely training on quality programs and therefore give it a positive approach reducing employee resistance.

A study conducted by Sharp et al (2000) on Factors Affecting Successful Implementation of ISO 9001:2000 found out that an organization with clear communication and quality awareness supported by active top management are likely to succeed in the implementation of ISO 9001:2000. Similarly, a study conducted by Baidoun (2003) on critical factors of TQM in Palestinian organizations revealed that clear and consistent communication at all levels and functions of the organization on quality programs, quality mission and quality objectives defining quality values is key in successful implementation of TQM. From the discussions, it is quite evidence that Top Management Commitment, Organizational Culture, Employees' Training and Communication are critical factors in implementation of TQM. There is therefore need for every organization that is implementing TQM to take these factors into account.

2.4. Organizational Culture and TOM

As cited by Nezhadet al, (2012), Erkutlu (2011) defined culture as a set of principles, values, beliefs, common understanding or thinking or norms for behavior that are shared by members of a society. Organizational culture is defined by Waliand Boujelbene (2011) as the set of organizational practices that are seen as characteristic for an organization. It gives the values, norms and principles that guide daily operations of an organization. Nezhadet al, (2012) discussed four dimensions of organizational culture: group culture that emphasizes on flexibility and cohesion among employees of an organization and advocates that top management should promote employees participation and empower them, developmental culture that advocates for flexibility and change based on the external environment, rational culture that which is oriented towards the external environment but focuses on control and stability and hierarchical culture that focuses on internal focus and control through internal efficiency and adherence to

law. Wali and Boujelbene (2011) on the other hand discussed organizational culture under orientations. They discussed four orientations: innovation orientation, stability orientation, results/outcome orientation, people orientation and communication orientation. An organization must come up with quality culture that must be integrated with other dimensions of culture if it has to succeed in TQM management. Organizational quality culture influences TQM implementation process as it communicates quality practices and norms that employees are expected to engage in. To Jamali et al. (2010), organization quality culture affects the employee's beliefs in implementation of TQM. An organization needs to create organization culture where employees understand and are encouraged to participate in quality management programs.

2.5. Communications and TQM

According to Kasongo & Moono (2010), communication is the exchange of ideas, messages, or information between people through speech, signals, or writing. According to him, success of an organization depends on communication such that when the process is hampered, the entire organization suffers. Every organization must therefore put into place proper communication systems that facilitate horizontal, vertical, upward and downward exchange of information. According to Murphey (2009), both internal and external communication is critical in implementation of quality programs. It enables stakeholders both within and outside the organization to have an in depth understanding of quality and its management. Top management must translate quality information in understandable form that all stakeholders can understand put in place feedback channel to allow a two way communication process (Murphey 2009).

2.6. Palestinian Firms and TQM

For the case of Palestine, and which is the major focus of the paper, it is evident that businesses and firms face numerous challenges both in the local and international markets. Among the challenges is the lack of appropriate strategies by the Palestinian firms to effectively introduce and implement various quality management approaches such as total quality management to the business operations, performance efficiency of both the management and other employees, as well as the improvement in the ability to make a response to the heightened competition.

In addressing the various challenges facing the Palestinian firms, some the organizations have started the quality movement, with the implementation of different quality improvement programs such as Six Sigma and quality control among others. Despite making such efforts for the enhancement of quality and standards for the produced products, evidence points to the

fact that small achievement has been realized and that the Palestinian economy still lags behind in comparison to the other Arab nations (Demirbag et al. 2006). Ideally, from such findings, it is evident that some factors contribute to the success of the implementation of quality management strategies in Palestine rather than just the application process. Analysis of such factors is a critical step in determining the effects that total quality management practices would have on Palestinian firm performances. As such, in the Palestinian case, one critical aspect that comes out clearly is the fact that a majority of the firms have previously failed to realize success despite implementation of total quality management because their application strategies have not included the most important aspects. Total quality management is built on three fundamental principles including customer and stakeholders' focus, a process focus with the support of continuous learning and improvement, as well as organized participation and corporate performance by all the members of an organization. Therefore, from a contingency approach, the contents of total quality management have to remain consistent with the environmental uncertainties and business orientation for the effectiveness of implementation and success (Agus, 2004).

2.7. The need for TQM in Firms

Total quality management practices play a vital towards determining the performance of an organization. Ideally, performance measurement is an essential element towards the achievement of an effective organizational management process. As such, the achievement of an organization's strategic and financial objectives has a direct link to its performance (Brah, Wong & Rao, 2000). A majority of previous research studies had their focus on financial performance rather than including the management perspective. Measurement of organizational performance occurs depending on the whole performance including the financials, customer satisfaction, and effectiveness of product quality (Irani, Beskese, & Love, 2004). Also, elements such as improved flexibility, minimization of costs and errors as well as enhanced process productivity are critical contributors to the overall performance. In Palestine, total quality management indeed has a significant impact on firms' performances. The two most important measurement gauges of organizational performance in Palestine are cost and quality, both of which have a direct relationship to total quality management. The application of the various total quality management practices including customer satisfaction & management, process management, and training, all work towards influencing employees performance and in the long run influences organizational performance (Agus, 2004). Considering the increased demand for quality products, firms have come to the realization of the need for the application of TQM practices, especially in the production processes as a means of

minimizing costs and errors while increasing product quality. Based on such a consideration, it is evidently clear that the application of TQM practices in the production processes enables firms to produce quality products that meet the needs of customers and in turn increased profitability for the firms.

2.8. Challenges Faces TQM in Palestinian Firms

Implementation of TQM is equally an aspect of vital importance, most actually in the quality control approach. One great challenge facing businesses in Palestine is that many organizations operate on understaffed employees. Such an aspect contributes to a higher workload put on an individual at a particular time, thus reducing the output and overall performance. Employee workload has a close relationship with TQM as it has an influence on the customer satisfaction levels. Ideally, despite the fact that an organization could have well-developed strategic plans and implementation policies, a failure or achievement on the part of the implementer contributes to the overall result or product (Davood, et al. 2013). Whenever an employee is assigned tasks beyond the inherent capabilities, then the result is likely not to meet the desired quality that meets customers' satisfaction. Therefore, the application of TQM practices ensures that every employee is only assigned tasks that meet the individual's capabilities thus influencing a higher production quality and a further advanced performance for the entire organization.

Also, there exists a positive relationship between TQM practices, the focus on employees, and the customers' satisfaction levels. In an organizational setting, it is the employees who contribute to the actual implementation of objectives. Have a management focus on them, especially on issues about remuneration and incentives; there is the likelihood production of quality services and products that customers' demand. The world is growing fast, and technological development and adoption are taking precedence in various operational processes. To meet the increasing demands created by the increased competition, businesses and organizations need to develop appropriate technologically driven strategies in their processes as a means enhancing production (Baidoun & Zairi, 2003). Adoption of new technology into an organization calls for adequate training, a major TQM practice. Training employees equip them with the necessary skills and techniques to facilitate advanced production mechanics with increased quality (Martinez-Costa, & Jimenez-Jimenez, 2009). Adoption of technology ensures that production costs and time are lowered as well as an increase in the resultant products. Such a development impacts on an organization positively, especially on expanding its establishment on the global market platform. An expanded market front is an opportunity for an increase of customer base at reduced production costs thus increased profitability (Kaynak, 2003).

3 Data and Research Methodology

The target population of this study is made up of all 57 firms from West Bank, Palestine. The sample firms were drawn through simple random sampling from the list obtained from the Palestinian chamber of commerce . A total of 57 structured questionnaires with closed questions were done to the selected firms.

Table 3.1: Analysis on Top Management Commitment

No.	Statement	Strongly disagree	Disagree	Indifferent	Agree	Strongly Agree	Mean	Std. Deviation
	Statement							
1.	Top Management Commitment							
a.	Top management is committed to quality in Palestinian Firms.			21.7 %	60.0 %	16.6 %	3.95	.624
b.	Top management provides a leadership in Quality management.	0.6 %		24. %	62.3 %	11.6 %	3.86	.605
c.	Critical resources required in implementing Quality initiatives are always made available.			23.4 %	67.4 %	7.4 %	3.84	.538
d.	Employee's ideas on quality management are welcomed			22.9 %	69.1 %	6.3 %	3.79	.554
e.	Top management participates in all quality management programs			27.4 %	64.0 %	6.9 %	3.80	.551
f.	Top management takes part at all levels of quality management programs			26.9 %	64.6 %	6.9 %	3.79	.554
g.	Organization has quality mission and policies			29.1 %	62.3 %	7.0 %	3.77	.563
h.	Organization has a formal quality management structure			25.7 %	65.7 %	6.9 %	3.81	5.44
i.	Organization practices a proper quality Planning process.			56.0 %	44.0 %		1.43	.497

From Table 3.1 above, majority of the respondents agreed that top management provides a leadership in quality management, critical resources required in implementing quality initiatives are always made available, employees’ ideas on quality management are welcomed, top management participates in all quality management programs, top management takes part at all levels of quality management programs, organization has quality mission and policies, organization has a formal quality management structure. However, majority of the respondents were indifferent about the organization practicing a proper quality planning process. Generally the table showed there is top management commitment to quality in Construction companies.

Table 3.2: Responses on Employee Training

No.	Statement	Strongly disagree	Disagree	Indifferent	Agree	Strongly Agree	Mean	Std. Deviation
1.	Employees Training							
a.	All employees get training on TQM programs		45.7 %	2.3 %	34.3 %	16.0 %	1.68	.468
b.	Employees in are frequently trained on TQM		44.6 %	37.7 %	1.1 %	14.9 %	1.35	.480
c.	Employees get timely training on T Q M		57.1 %	23.4 %	0.60 %	17.1 %	1.90	.307
d.	Training equip employees with understanding on TQM		1.1 %	26.9 %	60.6 %	9.7%	1.86	.348
e.	Employees are involved in TQM training programs.		61.1 %	29.1 %	0.6 %	7.4%	3.73	.756

From the Table 3.2 majority of the respondents disagreed that all employees get training on TQM programs, employees are not frequently trained on TQM, and employees do not get timely training on TQM, training equip employees with understanding on TQM and employees are not also involved in TQM training programs. The means of between 1.0

and 2.0 shows that in as much as the employees who had training on quality thought the organizations had appropriate and adequate training, these trainings were generally inadequate.

Table 3.3: internal communications

No.	Statement	Strongly disagree	Disagree	Indifferent	Agree	Strongly Agree	Mean	Std. Deviation
1.	Internal Communication							
a.	There are well developed internal Communication system in your organization		54.9 %	36.0 %	0.6 %	6.9 %	3.69	.605
b.	There is free flow of quality management information between departments in yours organization			59.4 %	29.1 %	9.7 %	3.80	.599
c.	There is free flow of quality management information from management to employees in your organization		60.6 %	17.7 %		20. 0 %	4.02	.621
d.	There is free flow of quality management information from employees to management in your organization			12.8 %	71.5 %	15. 7%	3.77	.643
e.	There is free flow of quality management information between employees		0.6 %	32.6 %	54.3 %	10. 9%	3.77	.622
f.	There if a well-developed feedback mechanism in your organization		1.1 %	29.1 %	58.9 %	9.3 %	3.88	.604
2.	External Communication							

a.	Your organization has well developed External communication system.		61.1	24.6 %		12. 6%	3.88	.604
b.	Your organization gets timely information about customer quality needs		61.7	17.1 %		19. 4%	4.02	.611
c.	Your organization gets customer Complaints in time.		58.3	18.3 %		21. 1%	4.03	.639
d.	Your organization gives timely response to customer quality complaints.		60.6	12.0 %		25. 7%	4.14	.605

Majority of the respondents disagreed that there is well developed internal Communication system in the organization, there is no free flow of quality management information between departments in the organization, there is no free flow of quality management information from management to employees in the organization, there is no free flow of quality management information from employees to management in the organization, there is free flow of quality management information between employees and that there if a well-developed feedback mechanism in your organization. On external communication, majority of the respondents disagreed that the organization has well developed external communication system, or organization gets timely information about customer quality needs, organization gets customer complaints in time and organization gives timely response to customer quality complaints. These results show that companies do not have in place adequate and appropriate communication systems and structures.

Table 3.4: total quality management

No.	Statement	Strongly disagree	Disagree	Indifferent	Agree	Strongly Agree	Mean	Std. Deviation
1	Top management commitment and leadership							
a.	Top management takes a leading role in management of quality in your organization			21.5 %	58.9 %	14.3 %	3.89	.625
b.	There is long term relationship with satisfied customers		62.3 %	24.6 %		11.4 %	3.87	.592
2.	Cultural Change							
a.	Your organization has a Total Quality Management culture that is shared in the entire organization			29.1 %	61.1 %	8.0 %	3.78	.578
b.	The quality culture in your organization Encourages innovation.		56.7 %	32.0 %	1.7 %	8.6 %	3.76	.657
3.	Customer Focus							
a.	Your organization strives to meet and exceed customer needs and expectations.		50.0 %	0.6 %	34.3 %	2.0 %	3.63	.666
b.	Your organization maintains close link		40.0 %	2.3 %	39.4 %	8.6 %	3.72	.557

These results showed the following: On top management commitment and leadership, majority of the respondents agreed that top management takes a leading role in management of quality in the organization and that there is long term relationship with satisfied customers. On cultural change, majority of respondents' disagreed the organization has a Total

Quality Management culture that is shared in the entire organization and that quality culture in your organization encourages innovation. On customer focus, majority of the respondents disagreed that the organization strives to meet and exceed customer needs and expectations, the organization does not maintain close link with its customers however the majority of the respondents agreed that the organization incorporate customer needs in developing and offering their services.

4 Discussion

This study investigated Palestinian firms through the implementation of various TQM practices; but failed however, to establish business excellence model with a provision for a continuous assessment of customer satisfaction for both the current and the potential customers with an overall enhancement of total quality service in the general business performance. With a focus on the examination of the relationship between TQM and organizational performance in Palestine, it is evident that the various TQM practices employed by different firms in Palestine experience a slightly improved performance from the financial perspective. From such an observation, it is obvious that business advances their performances based on how they manage their processes and finances. With an improvement in the two aspects, an organization is likely to experience an overall advanced performance improvement.

5 Conclusion

From a review of the research covering on the relationship between total quality management and its effects on organizational performances in Palestine reveals that there exists an active and direct relationship between TQM practices and business. Despite such a finding, it is also an aspect that before such a realization on the impact is made for an organization, various aspects need to be addressed. These include the organization policies and management practices, all of which need to adhere to the TQM practices for the realization of the actual impact. Apparently, evidence proves that any TQM strategy whose concentration lies entirely on the enhancement of customer satisfaction levels has a direct influence on the organizational performance. Also, leadership commitment from the top management to the employees is equally an important aspect that paves the way for an effective implementation of TQM practices at the organization to facilitate advanced organizational performance. Further research is, however, necessary to determine whether implementation of

TQM could attribute negative performances on an organization, and the most efficient way to mitigate such occurrences.

References

- [1] Agus, A. (2004). TQM as a focus for improving service performance and customer satisfaction: *Total Quality Management & Business Excellence*
- [2] Arumugam V., et al. (2008). *TQM Practices and Quality Management Performance- An Investigation of their Relationship*
- [3] Arshida M. M. and Agil S. O. (2012). Critical Success Factors for Total Quality Management Implementation Within the Libyan Iron and Steel Company. *Tun Abdul Razak University, Graduat School of Business*
- [4] Baidoun, S. and Zairi, M. (2003). A Proposed Model of TQM Implementation in the Palestinian Context". *Total Quality Management and Business Excellence*
- [5] Brah, S.,A., Wong ,J., L. and Rao, B.M. (2000). TQM and business performance in the service sector: a Singapore study. *International Journal of Operations & Production Management*, 20(11): 1293-1312.
- [6] Davood, G., et al (2013). Total Quality Management and Organizational Performance, *American Journal of Industrial Engineering*, 2013, Vol. 1, No. 3, 46-50
- [7] Dean, J.W. & Bowen, D.E (1994). Management theory and total quality: Improving research and practice through theory development, *Academy of Management Review* 19 (3) 392-418.
- [8] Demirbag M., et al (2006). An Analysis of the Relationship between TQM Implementation and Organizational Performance. *Journal of Manufacturing Technology and Management*. 17 (6) 829-847.
- [9] Dooyoung, S., J.G. Kalinowski and G. El-Enein, (1998). Critical implementation issues in total qualitymanagement. *SAM Advanced Management Journal*, 63(1): 10-14.
- [10] Fotopoulos, C. V., & Psomas, E. L. (2010). The structural relationships between TQM factors and organizational performance. *The TQM Journal*, 22(5), 539-552.
- [11] Irani, Z., Beskese, A., & Love, P. (2004). *Total quality management and corporate culture: Constructs of organizational excellence*
- [12] Honarpour, A., & Asadi, A. (2012). TQM and organizational learning: A methodological perspective. *International Journal of Business and Management Tomorrow*, 2(9), 1-6.
- [13] Kaynak, H. (2003). "The relationship between total quality management practices and their effects on firm performance
- [14] Jamali G., Ebrahimi M and Abbaszadeh A. M. (2010). TQM Implementation: An Investigation of Critical Success Factors. *International Conference on Education and Management Technology*

- [15] Martinez-Costa, M., & Jimenez-Jimenez, D. (2009). The effectiveness of TQM: The key role of organizational learning in small business. *International Small Business Journal*, 27, 98-125.
- [16] Northlink College, (2015). "QUALITY ASSURANCE", [Adobe Digital Editions version]. Retrieved from <http://www.northlink.co.za/Qms.aspx>.
- Nunnally, J., (1978). *Psychometric methods. (2nd edn). New York: McGraw-Hill.*
- [17] Omware Q. (2012). Determinants of Quality Management Practices. *University of Nairobi Organizations. Logistics Information Management 16 (2), 156-171*
- [18] Oluwatoyin A. and Oluseun A. (2008). Total Quality Management. A test of the Effect of TQM on Performance and Stakeholder Satisfaction. *Blekinge Institute of Technology, School of Management*
- [19] Sachdeva A., et al. Impact of ISO 9000 Certification on Performance of SMEs: A Study of Indian Industry, *International Journal of Management Practice*. 2007. 2 (3) 226-239.
- [20] Wang S. J. and Yu Chu P. (2000). Critical Factors Affecting the Implementation Decisions and Processes of ISO Quality Management Systems in Taiwanese Public Sectors. *Institute of Public Affairs Management, National Sun, Yat-sen University*
- [21] Zakuan N., Muniandy S., Saman N. Z. and MdArif M. S. (2012). Critical Success Factors of Total Quality Management Implementation In Higher Education Institution: A Review, *International Journal of Academic Research in Business and Social Sciences 2(12)*