

The survey of relationship between total quality management and financial performance

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Abstract

The main purpose of this research was to survey of relationship between total quality management and financial performance of accepted companies in the Tehran stock exchange. This research is the analytical- descriptive one with respect to the functional goal and the research method. Statistic society of this research included 460 companies accepted in the Tehran stock exchange that their data has been collected through questionnaire. To analyze data, the SPSS software has been used. In the descriptive part of statistics, data has been analyzed using the average of the standard deviation and variance. In the conceptual statistics, data has been analyzed through Pearson correlation test. Results obtained from hypothesis test indicate that there was a meaningful relationship between the total quality management and financial performance.

Key words: total quality management, Continuous improvement, Customer focus

Introduction

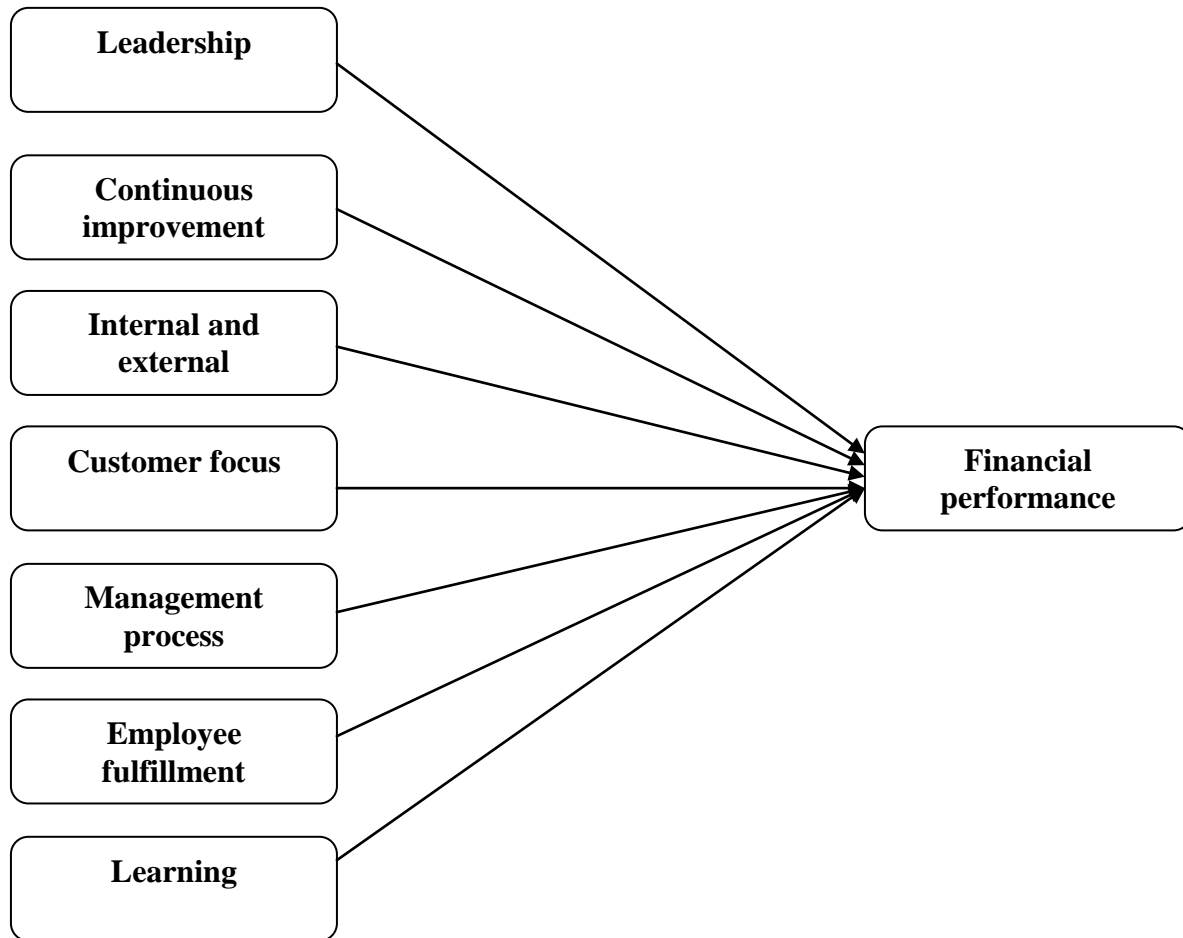
Quality has become a competitive priority. It has also become one of the requirements for success in the global market. For this reason, analyzing the impact of adopting Quality Management (QM) practices on organizational results constitutes one of the most productive lines of research. The theoretical foundations of the QM-performance relationship stem from the literatures on both management and marketing. Some authors consider the implementation of QM practices to be related to improvement in the firm's internal processes, which in turn is based on the theory of resources and capacities. Other studies have, in contrast, grounded this relationship in issues related to marketing, such as improvement in the trust and satisfaction that customers have in the firm or improvement in brand image. QM would thus be seen as a strategic tool available to marketing managers state that the implementation of quality practices can focus on the interior of the firm (focus on internal processes) to improve the firm's performance via cost reduction or by understanding quality as quality perceived by the customer and thus focusing on revenue expansion. (Fuentes-Fuentes et al, 2011) The TQM offers a life style for the constant improvement of the performance in any level and activity with creating appropriate condition of improvement according to the teamwork, trust and mutual respect; and in the research, the TQM is a repetitive cycle and infinite activity which contains organizational stability and dynamics (Steyaert, 2009). In other words, the TQM is a way to run an organization which is based on the quality and participation of all members of the organization and its aim is to reach long-term success through attracting customer satisfaction and supplying staff satisfaction. Baner and Tashman proposed that organization should try to establish the balance in considering the issues of the quality and research and consider them moderately in the macro

strategies of the organization. They argued that the existence of quality requirement is a critical necessity toward reinforcement of the organization resources to achieve higher rates of productivity and efficiency. While the existence of innovative facilities is related to the actual and potential capacity of the creativity, developing skills of staff and the ability to use new resources in the organization. They concluded that integrating these two categories of the quality of the innovation has many effects in the reinforcement of the competitive position and can underlie the stability in the future performance of the organization (hajjabbari et al,2012). The competitive pressure of today's business environment has prompted many organizations to shift their operational emphasis from a production-oriented approach to a market-oriented approach, which accords customer satisfaction the highest priority. At the same time, many businesses respond to competition by embracing the concepts of quality improvement and total quality management (TQM), which espouse that firms link organizational visions, missions, and operating principles with satisfying customer wants, and that companies exploit quality as a means to this end. This quality management approach emphasizes organizational ability to continuously satisfy customer needs at a profit with the involvement of all of the organizational members. Implementation of quality management is consistent with the marketing management approach where the latter requires organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it for execution. (lai & Cheng,2012) A total quality culture (TQC) is a flexible organization culture emphasizing continued excellence and quality improvement within a work environment. A TQC is defined by top management support, process-focused rather than task-focused work, teamwork and consensus, a flat and flexible structure, commitment to customer satisfaction, and continuous improvement. Managers should strive for a TQC within the workplace if the corporate strategic goal is to implement continuous quality improvement (Mitera et al, 2011).Quality problems in China – such as tainted milk products and excessive lead levels in toys – have raised interest in quality assurance from China and other East Asian countries Such problems raise the concern of supply chain managers about their suppliers' use of Quality management (QM) practices Yet, how QM practices are implemented and if suppliers are committed to QM affects product quality Moreover, the commitment and use of QM are highly influenced by cultural values and context-specific effects Because many QM practices were developed in Japan (Deming, 1986), a culture distinct from other East Asian countries QM may not be as effective in these other countries because of different cultural values(Kull & Wacker,2010). Organizations continuously search for new ways to improve performance and gain a competitive advantage. Quality Management (QM) initiatives offer one approach that firms use to improve performance. For example, 3M implemented Six Sigma to help improve performance. However, 3M's implementation has been met with mixed success Prior research of the relationship between QM and performance also shows mixed results. Some studies show a positive relationship with performance while other studies fail to find a relationship .In a study by Mohrman et al. (1995) 83% of the surveyed companies indicated a positive or very positive experience with QM, while a study by Dooyoung et al. (1998) reports failure rates as high as 60–70%. Organizations need to understand how to implement QM to achieve the maximum benefit. Taking a one-size fits all approach to QM may not lead to optimal outcomes. Different organizations may need different approaches to QM. (Zhang et al, 2012) in final can be said its results can be used in the improvement of performance of institutions and factories.

Necessity and importance of the research

In organizations, managers/leaders acquire energy through satisfying customer needs and organizational survival which is the main philosophy of TQM. Total quality management is a holistic quality improvement approach to firms for the purpose of improving performance in terms of quality and innovation for the last two decades. Organizations which are used TQM generate many benefits such as higher quality products, more satisfied customers, reduced costs, improved financial, quality and innovation performance and in addition to these improved employee satisfaction. Moreover, if TQM is implemented successfully, it provides a competitive advantage as well (Zehir et al,2012).Total quality management (TQM) has been widely adopted by firms in the last 50 years and yet firms report less than optimal results. In a study of 225 electronics manufacturing firms in Hong Kong, Yeung et al. (2006) reported that advanced TQM firms and non-TQM firms do not differ in their organizational performance. Our study contributes to the contingency perspective research stream which argues that the success of TQM depends on contextual factors. There is mixed support for the influence of TQM duration on the TQM-performance relationships While, Powell (1995) found longer TQM duration improved the effects of customer focus, benchmarking, empowerment, and process improvement on product performance (but not firm Performance), Brah et al. (2000) reported that success of TQM is attributable more to the rigor of implementation as opposed to TQM duration. This suggests that there is a combination recipe in play beyond implementation levels that affect outcomes. Saravanan and Rao (2007) found that successful firms enjoyed better quality and operational performance due to TQM within 3 years of implementation. A noticeable gap in the literature is that these studies do not use enabling theory to help explain why TQM duration moderates the practice-outcome relationships.(Jayaram et al,2010)The TQM is a management philosophy which considers the common needs and objectives of the company as unseparatable . It is applicable in the business, industry and services, guarantees the maximum level of productivity and efficiency, strengthens the business leadership through applying authority in the processes and systems, increases efficiency and avoids errors and ensures the organization that its whole goals is towards meeting the customer needs. The TQM refers to the field and process of the management which ensures the necessary coordination to observe customer requirements and beyond it. Barker and Harrington in the case of the importance of the administration of the TQM suggest that its application is not only in the production organization but it creates a revolution in the spirit of the humanity and has faced the 21th organizations with a great evolution. The TQM leads to the more commitment and efficient implementation of evolution as well as considerable reduction of the costs and increases the market share and along these consequences reduces the staff replacement and improves the appropriate service offering. It becomes clear that the TQM has more benefits for organizations and institutions and absolutely its benefit is more than its costs. Hence, doing more research about this issue is a necessity (hajijabbari et al,2012). The main purpose of this research was to the survey of relationship between total quality management and financial performance of the accepted companies in the Tehran stock exchange.

Conceptual model of research



Hypotheses

1. There is a relationship between the Leadership and Financial performance of the accepted companies in the Tehran stock exchange.
2. There is a relationship between the Continuous improvement and financial performance of the accepted companies in the Tehran stock exchange.
3. There is a relationship between the Internal and external cooperation and financial performance of the accepted companies in the Tehran stock exchange.
4. There is a relationship between the Customer focus and financial performance of the accepted companies in the Tehran stock exchange.
5. There is a relationship between the Management process and financial performance of the accepted companies in the Tehran stock exchange.
6. There is a relationship between the Employee fulfillment and financial performance of the accepted companies in the Tehran stock exchange.
7. There is a relationship between the Learning and Financial performance of the accepted companies in the Tehran stock exchange.

Research method and statistical society

The recent research from the viewpoint of the method was descriptive one and in the terms of the nature was the correlational research that in which the attempt was to identify the correlation between above-mentioned variables. The statistical society of this research for identifying effective factors on the company performance in any industry and measuring its importance coefficient was accepted companies in the Tehran stock exchange. The required information in order to identify accepted companies in the Tehran stock exchange has been obtained from the website of the stock exchange. Total accepted companies in the Tehran stock exchange were 460 which their information was available in the www.irbourse.com. Considering the population size is limited and specified number of samples used to determine the sample size of the community has been limited. First, a total of 15 questionnaires distributed and collected and analyzed the data, it was determined that the data are normal. So after inserting the formula to calculate the standard deviation and sample size of 98 was calculated.

$$n = \frac{N \left(z \frac{\alpha}{2} \right)^2 * \delta^2}{e^2 * (N - 1) + \left(z \frac{\alpha}{2} \right)^2 * \delta^2} = \frac{460 * (1.96)^2 * (.284)^2}{(.05)^2 * (460 - 1) + (1.96)^2 * (.284)^2} = 98$$

Method of the data analysis

In this research, internet resources and library studies and questionnaire were used for collecting data. Because the present research was the survey one and in the spatial domain of the accepted companies in the Tehran stock exchange, the questionnaire was used for collecting data. The present questionnaire was the researcher-make questionnaire which the structures of each variable have been driven from the different articles and books. Variable are measured with Likret five-part scale. Likret spectrum has the most application in the behavioral and human sciences research because of its simplicity if understanding and application as well as broad domain of attitude measurement. Since in this research we measured the attitude of the managers of accepted companies in the Tehran stock exchange, we used the likret spectrum for this purpose. The questionnaire has been completed by visiting the officials of the related companies and delivering them to the manager of the company (a questionnaire for each company) and also in order to ensure the accuracy of the answer to the way of answering to the questions, a brief interview was done with the respondent. In this research, the SPSS software has been used for analyzing data and obtained results have been offered which in the first section, for analyzing data after coding, first, the simple average has been taken and then for prioritizing environmental factors, the Freedman test has been used. And in the second part, Pearson correlation test have been used.

Research hypothesis test

Obtained results from the descriptive statistics for the gender variable as shown in the table (1) indicate that the number of the male answerer (76 man) was more than of the female answerer (22 female).

Table 1. Description of the gender variable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	man	76	77.6	77.6	77.6
	woman	22	22.4	22.4	100.0
	Total	98	100.0	100.0	

In the table (2) it is seen that out of the 98 respondent, the education of 1 person is diploma and 31 person is associate degree and 49 person is bachelor and 17 person is MA and higher.

Table (2). Description of the education variable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	diploma	1	1.0	1.0	1.0
	associate degree	31	31.6	31.6	32.7
	bachelor	49	50.0	50.0	82.7
	MA and higher	17	17.3	17.3	100.0
	Total	98	100.0	100.0	

Table (3) that is related to the age of the respondent indicates that the age of 43 respondent is between 20-30 and the age of the 40 respondent is between 30-40 and the age of 10 person is between 40-50 and the age of 5 one is up to 50.

Table (3). Description of the age variable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30	43	43.9	43.9	43.9
	30-40	40	40.8	40.8	84.7
	40-50	10	10.2	10.2	94.9
	50above	5	5.1	5.1	100.0
	Total	98	100.0	100.0	

Table (4) is the information which is related to the description of the independent variables and dependent variables that after analyzing has been summarized in a table. Regarding obtained results, the maximum amount in all variables is 5 and minimum amount in all variables is 1. The highest obtained average is related to the Customer focus variable (3.4143) and the lowest is related to the Continuous improvement (2.9592). And variables of the Customer focus (3.4143), Learning (3.3857), Employee fulfillment (3.3531), Leadership (3.2816), Management process (3.2265), financial performance (3.2150), Internal and external cooperation (3.0551), Continuous improvement (2.9592) obtained from the highest to the lowest average, respectively.

Table (4). Description of Dependent and independent variables

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Leadership	98	1.00	5.00	3.2816	1.03260	1.066
Continuous improvement	98	1.00	5.00	2.9592	1.17954	1.391
Internal and external cooperation	98	1.00	5.00	3.0551	1.09197	1.192
Customer focus	98	1.00	5.00	3.4143	1.06925	1.143
Management process	98	1.00	5.00	3.2265	1.05543	1.114
Employee fulfillment	98	1.00	5.00	3.3531	.94711	.897
Learning	98	1.00	5.00	3.3857	.99203	.984
Financial performance	98	1.00	5.00	3.2150	1.05312	1.109
Valid N (listwise)	98					

Table (5). Results of the Pearson correlation test

N	Variable	Pearson correlation	sig	result
1	Leadership	0.451	0.000	accept
2	Continuous improvement	0.396	0.000	accept
3	Internal and external cooperation	0.442	0.001	accept
4	Customer focus	0.296	0.020	accept
5	Management process	0.583	0.000	accept
6	Employee fulfillment	0.187	0.003	accept
7	Learning	0.335	0.000	accept

Table (5) shows obtained results from the Pearson correlation test for independent variables are related to the dependent variable of the research. Considering results of this table, it can be said that all of the independent variables (Leadership, Continuous improvement, Internal and external cooperation, Customer focus, Management process, Employee fulfillment and Learning) have a meaningful relation with the dependent variable of the research (Financial performance). Hence, in the 0.05 level of alpha all of the variables are meaningful. So, with 0.95 confidences it can be

said that variables of Leadership (0.451), Continuous improvement (0.396), Internal and external cooperation (0.442), Customer focus (0.296), Management process (0.583), Employee fulfillment (0.187), and Learning (0.335) are meaningful with the financial performance of the accepted companies in the Tehran stock exchange.

Conclusion and suggestion

TQM is a quality-oriented approach and has effects on quality performance that are supported by leading studies. Dimensions of TQM such as management leadership, process management, employee involvement and customer focus are commonly accepted activities to improve quality performance of firms (Zehir et al, 2012). In this study analysis results shows that; all of the independent variables (Leadership, Continuous improvement, Internal and external cooperation, Customer focus, Management process, Employee fulfillment and Learning) have a meaningful relation with the dependent variable of the research (Financial performance). The results of this study important variables in predicting the financial performance of each show. Therefore, managers must decide whether to pay sufficient attention to factors affecting financial performance. TQM has become one of the necessities of today's management science. In the present competitive era, companies should consider every day to improve the quality of their products and services with nitrogen so they can meet the market by the rival.

References

1. Fuentes-Fuentes M. Mar, Lloréns-Montes F. Javier, Molina-Fernández Luis M., Albacete-Sáez Carlos A.,(2011),” Environment-quality management coalignment across industrial contexts: An empirical investigation of performance implications”, *Industrial Marketing Management* ,vol.40 ,pp. 730–742
2. hajijabbari Ramin , shadi dizaji Behnam , salimichenar Reza,(2012),” Investigating the effect of the Total quality management (TQM) on the performance of Accepted companies in the Tehran stock exchange”, *Science Series Data Report*, Vol 4, No. 2,pp.1-14
3. Jayaram Jayanth, Ahire Sanjay L., Dreyfus Paul ,(2010),” Contingency relationships of firm size, TQM duration, unionization, and industry context on TQM implementation A focus on total effects”, *Journal of Operations Management*,vol.28 ,pp. 345–356
4. Kull Thomas J., Wacker John G. ,(2010),” Quality management effectiveness in Asia: The influence of culture”, *Journal of Operations Management* ,vol.28 ,pp. 223–239
5. Lai Kee-hung, Cheng A.C.L. Yeung, T.C.E. ,(2012),” Configuring quality management and marketing implementation and the performance implications for industrial marketers”, *Industrial Marketing Management* ,xxx , xxx–xxx
6. Mitera Gunita, Whitton Anthony, Gutierrez Eric, Robson Sheila ,(2011),” Total quality culture in radiotherapy departments across Ontario”, *Radiotherapy and Oncology*,vol. 99 ,pp. 90–93
7. Steyaert, J.(2009),”Measuring the performance of electronic government services”, *Information & Management*. pp: 369–375.
8. Zehira Cemal, Ertosun Öznur Gülen, Zehir Songül, Müceldilli Büşra ,(2012), “Total Quality Management Practices’ Effects on Quality Performance and Innovative Performance”, *Procedia - Social and Behavioral Sciences*,vol. 41 ,pp. 273 – 280
9. Zhanga Dongli, Linderman Kevin, Schroeder Roger G. ,(2012),” The moderating role of contextual factors on quality management practices”, *Journal of Operations Management*,vol. 30 ,pp. 12–23