

Barriers in Implementing Total Quality Management in Organizations: A Literature Review

Pussella, H.D.M.M.

Ocean University of Sri Lanka, Sri Lanka

maduship@ocu.ac.lk

Yapa, S.T.W.S.

University of Sri Jayewardenepura, Sri Lanka

samanyapa@sjp.ac.lk

Abstract

Present-day customers are very conscious of the quality of products and services. They are ready to pay a higher price for a quality product or service. A company that meets such demands gains a competitive advantage in the market over its competitors. One of the best approaches to address this challenge is the implementation of Total Quality Management (TQM). TQM, a systematic management approach and a journey to meet competitive and technological challenges, has been accepted by both service and manufacturing organizations globally. It is commonly agreed that by adopting TQM, the overall effectiveness and performance of organizations can be improved. Despite TQM offers numerous benefits, it is not an easy task to implement it. It is generally experienced that implementation of TQM is hard and painful due to certain barriers that inhibit the successful implementation of TQM. Understanding the factors that are likely to obstruct TQM implementation enables managers to develop more effective strategies for achieving business excellence. Therefore, the purpose of this literature-based paper is to identify the barriers in implementing TQM in business organizations. An extensive literature review was carried out to achieve this objective. The barriers in implementing TQM were identified under three main thematic areas namely: managerial issues, people-oriented issues and organizational issues. Under managerial issues, there are five barriers which hinder the successful implementation of TQM; lack of communication, lack of top-management commitment, lack of coordination between departments, no benchmarking and poor planning. There are four barriers under the category of the people-oriented issue namely, employee resistance to change, lack of proper training and education, inadequate use of empowerment and teamwork, and human resource barrier. Moreover, three barriers were identified under organizational issues, i.e. lack of continuous improvement culture, the attitude of employees towards quality, and high turnover at management level. Among these three categories, managerial issues were the most vital category followed by people-oriented issues and organizational issues. However, an in-depth empirical investigation is needed to explore the barriers in implementing TQM in the context of Sri Lankan organizations.

Keywords: Total Quality Management, Barriers, Implementation

INTRODUCTION

Present-day customers are highly conscious about the quality of the products and services they purchase. They have turned out to be progressively perceptive and have begun searching for choices more tuned in to their essential needs, prerequisites and self-regard. Moreover, they are ready to pay a higher price for a quality product or service. A company that meets such demands gains a competitive advantage over its competitors. One of the best approaches that seem to address this challenge is the implementation of Total Quality Management (TQM).

TQM is developed to convey the total organization-wide effort, which involves the entire workforce, to concentrate on continuous improvements for the satisfaction of customers (Bounds et al., 1994) and to provide organizations with a template for success through customer satisfaction. It is a way of managing to improve the effectiveness, efficiency, flexibility, and competitiveness of a business as a whole. It is also a method of removing waste, by involving everyone in improving the way things are done. TQM is fast becoming an essential feature of business strategy for the success of organizations due to the global competition and the enhanced role of quality in the business world. It is an integrated approach, consisting of principles and practices, which aims to improve the quality of an organization's goods and services through continuously meeting and exceeding customer's needs in most competitive ways (Thalib et al., 2012).

In today's competitive business world, it is very important to adopt TQM principles not only for making profits but also for survival. In this context, many organizations claim that they practice TQM in their organizations (Yapa, 2012). Accordingly, many industries around the world are adopting the philosophy of TQM to survive in a competitive market (McAdam et al., 2019; Saleh et al., 2018; Amer et al., 2017; Maistry et al., 2017).

Although TQM offers numerous benefits, it is not easy to implement it in organizations. It is generally experienced that TQM implementation is hard and very painful due to certain barriers that inhibit the successful implementation of TQM. Due to these barriers, many organizations have failed to implement TQM effectively in their organizations (Cho & Linderman 2019; Patyal & Koilakuntla 2018; Aladwan & Forrester 2016; Fu et al. 2015) and many industries are experiencing dissatisfaction with their TQM efforts (Soltani & Gharneh 2005). Moreover, researchers (Guangming, Clarke & Lehaney 2005, Hubiak & O'Donnell 1996) have reported that about 70-80 per cent of companies have either failed or abandoned TQM initiatives. The rate of failure of TQM implementation is reported up to 41 per cent in the recent literature (Carnerud 2018; Honarpour et al. 2017; Amer et al. 2017; Aladwan & Forrester 2016; Amer, 2015; Ketokivi & Choi 2014). Therefore, it is worthwhile to find out barriers that inhibit the implementation of TQM in organizations.

Accordingly, an extensive literature review was carried out to identify barriers which hinder the successful implementation of TQM, focusing on recent research papers.

OBJECTIVE AND STUDY DESIGN

As mentioned above, the objective of this study is to identify the barriers which hinder the successful implementation of TQM in organizations. Accordingly, number of research papers that satisfy the following criteria were selected for the review.

- i. An article deal with identifying barriers, obstacles, issues, failure reasons or causes which hinder the successful implementation of TQM within the contexts of both manufacturing and services.
- ii. An article published between 2000 to 2020 in a peer-reviewed journal or conference proceedings. Hence, other publication forms (books, newspapers articles, unpublished works, etc.) were not considered.

After identifying the above criteria, the authors carried out an online search by using the keywords *TQM* and *barriers* in three databases, namely Google Scholar, Research gate and Emerald. As a result, the authors identified thirty-two potential articles for the study.

The thirty-two articles identified were first examined in terms of their main descriptive information. By analyzing the trend of publication (Figure 1), it emerged that most of the studies were published in 2011 and 2014.

According to the industry-wise classification shown in Figure 2 most studies have carried out in the service industry followed by manufacturing and construction industry. Moreover, five out of thirty-two articles have covered both manufacturing and service industries.

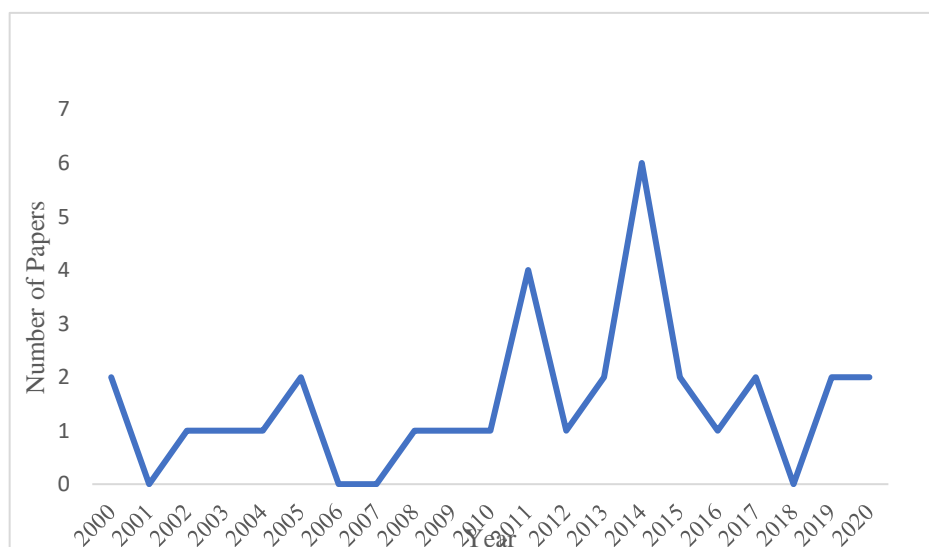


Figure 1: Publication trend

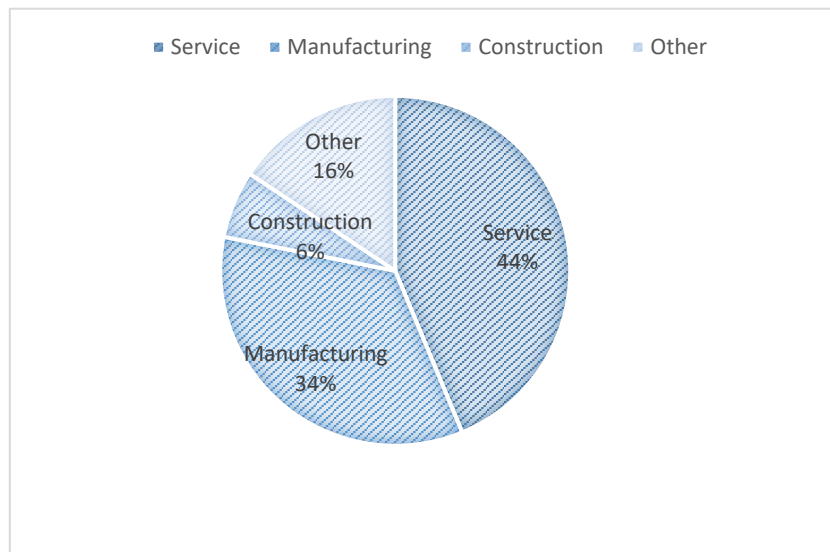


Figure 2: Distribution of papers based on industry

BARRIERS IN IMPLEMENTING TQM

Table 1 presents a brief description of the reviewed papers.

Table 1: A brief description of reviewed papers on TQM implementation barriers

Year	Author(s)	Study type	Sector	Country	Journal	Database
2000	Sohal & Terziovski	Quantitative and qualitative Study	Manufacturing	Australia	International Journal of Quality & Reliability Management	Emerald
2000	Yusof & Aspinwall	Case study	-	-	International Journal of Operations & Production Management,	Emerald
2002	Amar & Zain	Multi response survey	Manufacturing	Indonesia	The TQM Magazine	Emerald
2003	Sebastianelli & Tamimi	National survey	-	-	Quality Management Journal	Google Scholar
2004	Jun et al.	-	Service	Mexico	Journal of Total Quality Management & Business Excellence, 1	Google Scholar
2005	Huq	A quasi-qualitative case study	Service	USA	Managing Service Quality: An International Journal	Emerald
2005	Rad	Survey	Service	Iran	Leadership in Health Services	Emerald
2008	Twaissi et al.	Quantitative	Service	Jordan	Proceedings of the 2 nd Quality Congress Middle East	Google Scholar
2009	Bhat & Rajashekhar	Literature study followed by a survey	Manufacturing	India	The TQM Journal	Emerald
2010	Shaari	Qualitative & quantitative study	Manufacturing	Malaysia	International Review of Business	Research Gate

					Research Papers	
2011	Talib et al.	Exploratory study	Service	-	International Journal of Services and Operations Management	Emerald
2011	Talib et al.	An interpretive structural modelling-based approach	Service	-	Benchmarking: An International Journal	Research Gate
2011	Rahman et al.	Literature study followed by a survey	Manufacturing	Libya	Middle-East Journal of Scientific Research	Google Scholar
2011	Raj & Attri	Survey	-	-	International Journal of Productivity and Quality Management	Google Scholar
2012	Shibani et al.	Qualitative & quantitative survey	-	Libya	Business and Management Research Journal	Google Scholar
2013	Mishra & Pandey	Literature study	Service	India	Journal of Education & Research for Sustainable Development	Emerald
2013	Singh & Ahuja	Literature study followed by a survey	Manufacturing	India	International Journal of Technology Policy and Management	Research Gate
2014	Alsughayir	Quantitative	Service	Saudi Arabia	International Journal of Business Administration	Research gate
2014	Tey & Ooi	Quantitative	Construction	Malaysia	Research Journal of Applied Sciences, Engineering and Technology	Research Gate
2014	Sadikoglu & Olcay	Cross-sectional survey	Manufacturing	Turkey	Advances in Decision Sciences	Google Scholar

2014 a	Mosadeghrad	Exploratory study	Service	Iran	International Journal of Health Care Quality Assurance	Emerald
2014 b	Mosadeghrad	Literature study	-	-	The TQM Journal	Emerald
2014	Talib & Rahman	Survey	Service	India	Proceedings of 18 th Annual International Conference of the Society of Operations Management	Google Scholar
2015	Talib & Rahman	An analytic hierarchy process approach	Service	-	The TQM Journal	Emerald
2015	Pourrajab et al.	Survey	Service	Iran	The TQM Journal	Emerald
2016	Balasubramanian	Quantitative study	Service	India	Science Journal of Public Health	Research Gate
2017	Nicolaou & Kentas	Literature study	Service	Cyprus	Journal of Health Science	Google Scholar
2017	Talapatra & Uddin	Literature study followed by a survey	Manufacturing	Bangladesh	International Conference on Mechanical, Industrial and Materials Engineering	Google Scholar
2019	Dilawo & Salimi	Exploratory study	Construction	Southern Africa	International Journal of Quality & Reliability Management	Emerald
2019	Talapatra & Uddin	Fuzzy analytic hierarchy process.	Manufacturing	Bangladesh	Benchmarking: An International Journal	Emerald
2020	Kumar et al.	Case analysis	Manufacturing	India	International Journal of Quality & Reliability Management	Emerald
2020	Kaur et al.	Survey	Manufacturing	India	International Journal of Quality &	Emerald

According to Nicolaou & Kentas (2017), the most common reason for TQM implementation failure in the healthcare sector is lack of management commitment, change of culture, quality tools and techniques not applied correctly, not adequate time for implementation, lack of resources and information, data validity, cost of investment, management's resistance to empowering employees and professional's resistance.

In a study on barriers faced by the organizations engaged in private medical services organizations in implementing TQM, Alsughayir (2014) identified twenty barriers namely, resistance to change, frequent turnover of employees; lack of motivation, belief that quality is expensive, quality action plans are often vague, lack of a sense of unity and loyalty, quality is not measured effectively, management decisions are short-term-oriented, strategic plan is not customer-driven, high costs of implementing TQM outweigh the benefits, lack of commitment from workers, top management is not committed to quality, quality is treated as a separate initiative, management's compensation is not linked to achieving quality goals, employees are not empowered to implement quality improvement, time constraints prohibit effective TQM implementation, lack of knowledge and skills, there is no joint planning with suppliers, the best practices and/or products of other companies are not benchmarked, quality is not defined by the customer.

Talib & Rahman (2014) in their study revealed six barriers namely, inadequate use of empowerment and teamwork, lack of continuous improvement culture, lack of proper training and education, no benchmarking, poor planning and lack of top-management commitment which showed a significant difference in their presence across Indian ICT and banking industries.

As per the literature study by Mosadeghrad (2014b), the most frequently mentioned reasons for TQM implementation failures include insufficient education and training, lack of employees' involvement, lack of top management support, inadequate resources, deficient leadership, lack of a quality-oriented culture, poor communication, lack of a plan for change and employee resistance to the change program.

Talib et al. (2011) identified twelve barriers namely, the attitude of employees towards quality, employee's resistance to change, high turnover at management level, human resource barrier, inadequate use of empowerment and teamwork, lack of communication, lack of continuous improvement culture, lack of coordination between the department, lack of proper training and education, lack of top-management commitment, no benchmarking, and poor planning. Moreover, the barrier lack of communication was the most significant followed by lack of top-management

commitment, employees' resistance to change and lack of coordination between departments. The least significant barrier was high turnover at the management level (Talib et al., 2015).

From the intensive case analysis, Kumar et al. (2020) identified fourteen barriers that constrain the successful implementation of TQM. They are lack of top management involvement, ineffective leadership, lack of teamwork, lack of proper training and education, unawareness of measuring quality and customer satisfaction level, TQM viewed as a quick fix with a focus on short-term goals, lack of benchmarking standard, the mismatch between TQM strategy and business goals, the absence of feedback system, employee resistance to change, lack of program implementation at the right time, lack of coordination between departments, the absence of planning, and TQM implementation without TQM culture.

The barriers identified through the literature review can be categorized under three main themes; managerial issues; people-oriented issues and organizational issues. The list of common TQM implementation barriers extracted from the above literature classified under above mentioned three key themes are given in Table 2.

Table 2: Common TQM implementation barriers extracted from the literature

Theme	TQM barrier	Authors
Managerial issues	Lack of communication	Talib & Rahman (2015), Nicolaou & Kentas (2017), Huq (2005), Talib et al. (2011), Bhat et al. (2009), Singh & Ahuja (2013), Tey & Ooi (2014), Dilawo & Salimi (2019), Mosadeghrad (2014b), Kaur et al. (2020)
	Lack of top-management commitment	Talib & Rahman (2015), Nicolaou & Kentas (2017), Alsughayir (2014), Huq (2005), Rad (2005), Talib et al. (2011), Mishra & Pandey (2013), Bhat et al. (2009), Balasubramanian (2016), Singh & Ahuja (2013), Shaari (2010), Tey & Ooi (2014), Sadikoglu & Olcay (2014), Rahman et al. (2011), Talapatra & Uddin (2017), Kumar et.al (2020), Bhat & Rajashekhar (2009), Dilawo & Salimi (2019), Mosadeghrad (2014a), Mosadeghrad (2014b), Sebastianelli & Tamimi (2003), Talib & Rahman (2014), Shibani et al. (2012), Kaur et al. (2020), Yusof & Aspinwall (2000)

	Lack of coordination	Talib & Rahman (2015), Huq (2005), Rad (2005), Talib et al. (2011), Bhat et al. (2009), Singh & Ahuja (2013), Rahman et al. (2011), Kumar et al. (2020), Dilawo & Salimi (2019), Kaur et al. (2020),
	Lack of / No benchmarking	Talib & Rahman (2015), Talib et al. (2011), Singh & Ahuja (2013), Kumar et al. (2020), Talib & Rahman (2014),
	Poor planning	Talib & Rahman (2015), Huq (2005), Rad (2005), Talib et al. (2011), Singh & Ahuja (2013), Shaari (2010), Sadikoglu & Olcay (2014), Kumar et al. (2020), Bhat & Rajashekhar (2009), Talapatra & Uddin (2019), Mosadeghrad (2014a), Mosadeghrad (2014b), Sohal & Terziovski (2000), Sebastianelli & Tamimi (2003), Talib & Rahman (2014), Yusof & Aspinwall (2000),
People-oriented issues	Employee's resistance to change	Talib & Rahman (2015), Nicolaou & Kentas (2017), Alsughayir (2014), Huq (2005), Talib et al. (2011), Mishra & Pandey (2013), Balasubramanian (2016), Singh & Ahuja (2013), Shaari (2010), Sadikoglu & Olcay (2014), Jun et al. (2004), Mosadeghrad (2014b), Shibani et al. (2012), Pourrajab et al. (2015)
	Lack of proper/ continuous training and education	Talib & Rahman (2015), Alsughayir (2014), Huq (2005), Rad (2005), Talib et al. (2011), Bhat et al. (2009), Balasubramanian (2016), Singh & Ahuja (2013), Shaari (2010), Tey & Ooi (2014), Sadikoglu & Olcay (2014), Rahman et al. (2011), Talapatra & Uddin (2017), Twaissi (2008), Kumar et al. (2020), Bhat & Rajashekhar (2009), Talapatra & Uddin (2019), Jun et al. (2004), Mosadeghrad (2014a), Mosadeghrad (2014b), Sebastianelli & Tamimi (2003), Talib & Rahman (2014), Kaur et al. (2020),

	Inadequate use of empowerment and teamwork	Talib & Rahman (2015), Nicolaou & Kentas (2017), Huq (2005), Rad (2005), Talib et al. (2011), Singh & Ahuja (2013), Twaissi (2008), Kumar et al. (2020), Talapatra & Uddin (2019), Talib & Rahman (2014)
	Human resource barrier'	Talib & Rahman (2015), Talib et al. (2011), Bhat et al. (2009), Singh & Ahuja (2013), Shibani et al. (2012), Yusof & Aspinwall (2000)
Organizational issues	Lack of continuous improvement culture	Talib & Rahman (2015), Nicolaou & Kentas (2017), Huq (2005), Rad (2005), Talib et al. (2011), Bhat et al. (2009), Balasubramanian (2016), Singh & Ahuja (2013), Sadikoglu & Olcay (2014), Rahman et al. (2011), Talapatra & Uddin (2017), Twaissi (2008), Kumar et al. (2020), Bhat & Rajashekhar (2009), Dilawo & Salimi (2019), Mosadeghrad (2014a) Mosadeghrad (2014b), Talib & Rahman (2014),
	Attitude of employees towards quality	Talib & Rahman (2015), Alsughayir (2014), Huq (2005), Rad (2005), Talib et al. (2011), Mishra & Pandey (2013), Bhat et al. (2009), Balasubramanian (2016), Singh & Ahuja (2013), Shaari (2010), Tey Ooi (2014), Sohal & Terziovski (2000), Kaur et al. (2020)
	High turnover at management level/ High employee turnover	Alsughayir (2014), Huq (2005), Talib et al. (2011), Singh & Ahuja (2013), Rahman et al. (2011), Dilawo & Salimi (2019), Jun et al. (2004), Mosadeghrad (2014a) Mosadeghrad (2014b),

From this analysis, it is clear that almost all of the barriers in implementing TQM can be removed by changing organizational culture. Another important step is to train and educate the employees and the managers on the TQM before it is implemented in an organization. Top management leadership and commitment is very important for smooth implementation of TQM in an organization.

CONCLUSION AND FUTURE RESEARCH DIRECTIONS

Understanding the factors that are likely to impede the implementation of the TQM allows managers to develop more effective strategies for improving the chances of successfully deploy TQM and thereby to achieve excellence in the business (Jacobsen, 2008). The purpose of this paper was to identify the barriers in implementing TQM in business organizations and to make those known to the managers of organizations. Through the extensive literature review carried out to achieve this objective, barriers in implementing TQM were identified under three key thematic areas namely: managerial issues, people-oriented issues and organizational issues. Under managerial issues, there are five barriers which hinder the successful implementation of TQM namely: lack of communication; lack of top-management commitment; lack of coordination between departments; no benchmarking and poor planning. There are four barriers under the category of the people-oriented issue namely: employee resistance to change; lack of proper training and education; inadequate use of empowerment and teamwork; and human resource barrier. Moreover, three barriers were identified under organizational issues such as lack of continuous improvement culture, the attitude of employees towards quality, and high turnover at management level. Among these three categories, managerial issues was the vital category followed by people-oriented issues and organizational issues.

Moreover, after the analysis of thirty-two research publications, it is quite evident that no study has been found in the Sri Lankan context for identifying barriers in implementing TQM in Sri Lankan organizations. Hence an in-depth investigation is needed to explore the barriers in implementing TQM in the context of Sri Lankan organizations.

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