Total Quality Management Implementation Challenges

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Abstract

The total quality management (TQM) philosophy, which advocates for a holistic view of organizations, has a positive implication for organizations in diverse industries and sectors with regard to quality improvement and management. Nonetheless, the implementation of the philosophy has often been faced with considerable challenges and difficulties. As such, TQM implementation does not always result in the intended benefits. With extensive reference to literature, the challenges associated with TQM implementation are discussed in this paper. The paper first provides a comprehensive definition of TQM and the various tools for its implementation. The paper then highlights the factors that hinder TQM success. Implications for practice are also discussed.

Keywords: Total quality management (TQM), Total quality management (TQM), TQM tools, TQM implementation challenges.

I. INTRODUCTION

In an increasingly competitive business environment, the ability to deliver quality is a crucial source of competitive advantage. Either in business or non-business settings such as the public sector, organizations are increasingly concerned about optimizing their processes and activities so as to deliver quality products and services [1]. The pressure to deliver quality is even greater for business organizations given that consumers constantly look out for organizations that consistently deliver on their promises. In addition, business organizations now face greater competitive pressure than ever before due to factors such as globalization, technological advancements, as well as changing consumer tastes and preferences [2]. Consistent delivery of quality has, therefore, become a true mark of differentiation. “All the best practices in the world won’t change a thing if an organization can’t own up to its underlying problems” Chris Argyris, former Professor Emeritus at Harvard Business School.

In the last five decades or so, several models have emerged to guide organizations in their quality improvements efforts. One of the widely recognized quality management models is the total quality management (TQM) framework, which advocates for an organization-wide view of organizations as far as quality improvement is concerned [3]. With inspiration from Japanese manufacturers, which extensively adopted quality principles in the 1950s and 1960s [3], the model gained worldwide popularity in the 1980s and 1990s [4]. It has since become a popular management philosophy in small, mid-size, and large organizations in diverse industries and sectors, in both the private and public sector, and in both developed and developing countries [4, 2, 6, 7and 8]. Despite its popularity, TQM has some challenges as far as implementation is concerned. With extensive reference to literature, this paper discusses the challenges associated with TQM implementation as well as solutions for overcoming the challenges.

II. PROBLEM STATEMENT

Literature demonstrates that TQM can positively influence organizational performance in both small and large, and private and public sector organizations [1, 2, 3and 9]. The benefits of TQM come in the form reduced errors and defects, reduced waste, greater productivity, increased revenues and profitability, greater market share, healthier relationships with suppliers, as well as improved customer and employee satisfaction [10]. In practice, however, the implementation of TQM has often failed to yield the intended outcomes [6]. Actually, the failure rate of TQM implementation has been quoted to be as high as 70% [1, 10 and 11]. Though this figure may be inflated, the fact that TQM implementation is not an easy, straightforward endeavor cannot be denied.

Scholars have been concerned about why TQM implementation does not always achieve the outcomes for which it was intended. This has raised questions relating to whether TQM is just another management fad and whether the TQM age is over. It has emerged that challenges such as lack of management commitment, resource inadequacy, and incompatibility with organizational culture have immense potential to constrain the expected benefits of TQM implementation [8, 9, 10, and 12]. It is, therefore, important for organizations to understand these challenges if they are to reap the most from TQM implementation. Without understanding these difficulties and taking the necessary measures to overcome them, TQM implementation is likely to continue being a waste of time and resources.
III. LITERATURE REVIEW

A. Total Quality Management

Before progressing further, it is important to have a comprehensive understanding of what TQM entails. Different scholars have offered different definitions of TQM, implying that there has been lack of consensus over what TQM entails. All the same, TQM has generally been defined as a management philosophy that advocates for continuous improvement of organizational processes and activities with a view to delivering quality products and services and meeting customer expectations [5, 12]. The “total” element implies that all persons and processes are involved, including customers, suppliers, and all functions within the organization [2]. The “quality” element implies fulfillment of customer requirements and expectations [2]. The “management” element implies that the senior management must play a frontline in terms of creating and sustaining a culture of quality improvement and providing the necessary resources and support [2].

From the above definition, it can be seen that TQM comprises three major elements: leadership elements (mission and vision statement, strategic planning, quality decisions, and customer-centeredness); hard elements (procedures, tools, techniques, and standards); and soft elements (teamwork, employee empowerment, and incentives) [2]. The hard and soft aspects can be identified in virtually every definition of TQM [13]. These elements provide insights about critical success factors as far as TQM implementation is concerned. For instance, it can be seen that the expected benefits of TQM implementation may not be achieved in the absence of leadership and management commitment. For Mehta et al. TQM encompasses both technical and behavioral aspects. The technical aspect can be likened to the hard elements while the behavioral aspect can be likened to the soft elements.

Generally, quality management systems are introduced to create and sustain a culture of quality at all levels of an organization. This entails processes that fall under four major areas: quality planning, quality control, quality assurance, and quality improvement [14]. In essence, the whole point of quality management is to introduce quality policies and define and provide the mechanisms, procedures, and resources through which quality is evaluated, improved, and maintained. It can, therefore, be seen that TQM implementation is not a one-time or an overnight endeavor – it is an ongoing process [12]. As Argyris, put it, TQM succeeds to the extent that organizations are able to discover problems and address them effectively. The implication is that organizational learning is a crucial ingredient of TQM success in the long term [15]. This also implies that TQM benefits are observable in the long term – rarely will tangible results be seen overnight.

B. TQM Implementation Tools

There are several tools that can be used in TQM implementation: Six Sigma, lean manufacturing, just-in-time, ISO 9000, plan-do-study-act (PDSA), balanced scorecard, the Malcolm Baldrige National Quality Award framework, and the European Foundation for Quality Management (EFQM) model [4, 5, 6, 12, 16 and 17]. While each tool provides a different approach for TQM implementation and despite lack of consensus over what TQM should entail, there are themes that recur across the board: leadership and management commitment, customer focus, people involvement, process management, continuous improvement, fact-based decision making, mutually beneficial stakeholder relationships, and system thinking. Though research remains divided over the impact of TQM on organizational performance, it has extensively been shown that attention to these areas can positively influence not only financial but also non-financial outcomes such as customer satisfaction and retention, employee satisfaction and retention, and organizational reputation [2, 3].

IV. TQM IMPLEMENTATION CHALLENGES

A. Leadership and Management Commitment

One of the major challenges that hinder TQM success is lack of leadership and management commitment [8]. In fact, lack of leadership and management commitment can result in failure in up to 80% of organizations that introduce TQM [10]. With reference to 50 manufacturing and service organizations in Mexico [3], have identified management commitment as a crucial ingredient of TQM success. Though the representativeness of the study is limited by the fairly small sample used and its restriction to Mexico, it highlights the crucial role of leadership and management in fostering a culture of quality in organizations. This view has also been shared by [7], who in their study of engineering education institutions in India argued that TQM efforts may not go far without management commitment. The relevance of management commitment in TQM implementation has also been illustrated in other studies [18, 19, and 20].

The connection between leadership commitment and TQM implementation can be viewed from the perspective of the role of leadership. Change management and organizational development literature has demonstrated that the top management plays an instrumental role in directing the organization towards where it desires to go [21]. Moreover, several definitions of TQM identify leadership commitment as a critical success factor for TQM. In addition, in most countries where TQM has been successfully implemented, there are examples of executives who have introduced the cultural change and steered their organizations through the TQM journey [20]. Demonstrating commitment to the change initiative on the part of the senior management serves as a crucial source of motivation for employees, who are directly involved in the implementation of the change. In fact, when a leader initiates change in an organization, the most fundamental concern for employees often relates to the leader’s commitment to the change [21]. Commitment in this regard denotes visible and tangible behavior, not just rhetoric.

Generally, TQM implementation entails adjustment of processes and structures as well as introduction of new ways of doing things. As such, if employees do not observe authentic and enduring commitment to quality in the conduct of the top management, then it is highly unlikely that TQM implementation will produce the desired results [8]. Leadership commitment to quality encompasses a wide range of actions, including demonstrating TQM-oriented skills and knowledge, recognizing and rewarding
employees as per TQM principles, making decisions based on facts, as well as fostering a culture of teamwork and collaboration. It also encompasses providing the necessary resources (human and capital resources) as well as consistent communication of TQM values, expectations, and focus [19]. In essence, all management actions must be TQM-centered if TQM implementation is to result in the intended benefits. Without observable behavior change towards TQM principles on the part of the top management, there will be little progress as far as TQM success is concerned – any change initiative tends to become a mere fad.

While leadership and management commitment remains a significant TQM implementation barrier, it is important to consider why the senior management may portray inadequate commitment to the TQM philosophy. According to Vouzas & Psychogios, unawareness of TQM concepts, values, and practices is one of the major reasons that account for lack of commitment on the part of the senior management. Vouzas & Psychogios arrived at their conclusion following a study of 400 managers. The study particularly found that while managers understand the hard aspects of TQM, they have a limited understanding of soft aspects, especially employee empowerment, training, involvement, teamwork, culture change, and democratic management style. These aspects are crucial success factors as far as TQM success is concerned [10]. The implication is that the management must have sufficient knowledge of TQM if they are to demonstrate commitment to it.

B. Organizational Culture

The element of leadership brings to focus the implications of organizational culture on TQM implementation. This link particularly stems from the fact that leadership plays an instrumental role in creating and instilling the values and norms that characterize an organization [21]. Organizational culture has actually been described as the biggest obstacle to TQM implementation [6]. It has also been argued that organizational culture is a more significant TQM implantation barrier compared to theoretical and methodological limitations [11]. With reference to 119 Lithuanian and Turkish organizations, Vilkas et al. illustrated that an organizational culture that is not consistent with TQM values (such as people involvement and customer focus) can be a major hindrance to TQM success [25]. This view was also shared by Abdirad and Nazari following an examination of public design firms in Iran [14]. Particularly found out that organizational factors, especially policies, standards, and structures, can dampen the success of TQM implementation. An organizational culture that is conducive for TQM is one that encourages participative management and teamwork, drives out fear, and advocates for long term orientation amongst all employees in the organization [1].

While organizational culture can constrain TQM success, it must be noted that organizational culture is to a large extent influenced by the country culture. In some cultures (especially high power distance cultures), for instance, subordinates are expected to follow instructions from superiors without questioning [10]. Since TQM advocates for people involvement and delegation of decision making, it may be difficult for an organization embedded in such a culture to reap the fruits of TQM as such a culture tends to stifle innovation and creativity. Mosadeghrad has also argued that an organizational culture characterized by a top-down authoritative or command and control leadership style contradicts the fundamental values of TQM [10]. It has also been argued that a culture of quality may not thrive in an environment that does not foster collaboration and participatory decision making [14]. Additionally, organizational culture tends to differ between private and public sector organizations [6]. While private sector organizations tend to have more democratic organizational structures, public sector organizations tend to have more bureaucratic structures. This actually explains why TQM failures are more pronounced in public sector organizations compared to private sector organizations [7, 9].

Owing to incompatibility between organizational culture and TQM principles, TQM implementation often entails introducing a new work culture or eliminating prohibitive cultural factors [4, 8]. Kujala and Lillrank have actually described TQM as a cultural phenomenon [4]. Some studies have suggested that TQM can as well thrive in unfavorable environments. For instance, in their study of a manufacturing organization in the United Arab Emirates, Jones and Seraphim illustrated that it is possible to implement TQM practices in an environment deficient in what are described as critical TQM success factors [22]. Despite existence in a national culture generally characterized by hierarchical organizational structures, top-down communication, inattention to teamwork, lack of employee involvement in decision making and empowerment, the company managed to reap the benefits of TQM by making modifications to its organizational culture [22]. Though it may be considered as an isolated case that may not be readily generalizable, Jones’s and Seraphim’s study indicates that even organizations in cultures that conflict with TQM values can as well implement TQM successfully [22]. In fact, numerous TQM successes have been observed in Asian contexts over the years [11].

Nonetheless, it is important to note that changing deeply embedded values, norms, traditions, artifacts, and underlying assumptions can be a difficult process since people have an innate tendency of clinging to the old way of doing things [10, 12, 16 and 17]. This was particularly the case in Jones’s and Seraphim’s study – initially, there was a great deal of resistance to adjustments in organizational culture. All the same, fit or near fit between organizational culture and TQM values is crucial for TQM success [22].

C. Poor Planning and Deployment

The challenges of leadership and management commitment and organizational culture are further compounded by poor planning and deployment of TQM [17]. In a review of 54 empirical studies carried out in 23 countries (both developed and developing), Mosadeghrad identified inappropriate choice of TQM model and implementation method as major TQM success barriers [10]. One of the reasons for this is extensive disagreement over what TQM entails, especially in terms of fundamental principles and critical success factors [23]. As a result, different models suggest different constructs, which often results in different outcomes. Owing to the theoretical
flaws of TQM, it is recommendable to use the philosophy alongside other models and frameworks [10].

The theoretical limitations of TQM are further compounded by lack of a standard method for its implementation [23]. As mentioned earlier, there are several standards, such as ISO 9000, to guide TQM implementation efforts. In most cases, however, the multiplicity of the standards and, most importantly, the complexity inherent in some models lead to confusion over the most appropriate standard and how to implement the selected method in practice. The confusion has been described as the total quality paralysis [11]. Organizations end up choosing inappropriate implementation methods or misusing, overusing, or under-using tools and techniques [10].

With confusion over what constructs to focus on and what tools and techniques to utilize in TQM implementation, planning often becomes a problem [10]. For instance, when TQM initiatives are introduced in an organization, focus often tends to be on creating teams and getting them to start to work. Shortly after the TQM journey starts, a number of problems emerge in terms of what the teams should pay attention to, whether all teams should do the same thing, whether each team should do things in its own way, whether teams should have the same set of skills, and so on [23]. These questions, which arise from poor planning, can stall the implementation process. The view of most TQM commentators is that teams should be created when adequate planning has been made and that teams should deal with problems which if addressed would generate a difference in how the organization functions [23]. As such, effective teamwork starts with cross-functional teams working on specific tasks as opposed to departmental or functional teams working on enhancing their day to day work.

Problems of planning do not only manifest in teamwork and collaboration difficulties. In most cases, there is failure to incorporate quality efforts in the overall organizational strategy, particularly with reference to quality goal setting, developing tactics and action plans, as well as staffing and role definition [10]. Poor planning also results in lack of a clear vision and direction, poor communication of the change program, conflicting goals and priorities, and improper mobilization and deployment of resources [10]. With proper planning, these difficulties can be readily overcome.

Poor planning and deployment of TQM often stems from a quick-fix mentality [10]. Such a mentality implies that when results do not come quick, support is reduced. As mentioned earlier, the fruits of TQM are often reaped in the long run. This implies that TQM should be viewed as a way addressing the strategic future of the organization, not a way of addressing a particular set of problems or issues. From its definition, and particularly with reference to the element of “total”, TQM implementation calls for inclusion of the organization as a whole – all departments or functions, all members of staff, and all relevant stakeholders [23]. This certainly cannot be achieved in a few days, months, or weeks. In fact, it may take up to five years or even longer to embed TQM principles, create a supportive environment, and align employee behavior with TQM values [10]. Long sightedness is, therefore, a critical success factor as far as TQM success is concerned. Everyone in the organization must have this understanding.

Lack of long sightedness when introducing TQM indicates a tendency of organizations to introduce TQM even when they do not have a comprehensive understanding of what it entails – they are motivated by the desire to look legitimate as opposed to efficiency or economic gains [24]. In a similar vein, Abdirad and Nazari have argued that the pressure for certification, as opposed to quality, is often a motivation to adopt a quality management system [14]. Such an approach often results in reduced management commitment, loss of interest in TQM on the part of employees, and even premature abandonment of the TQM program [10, 14]. Whereas appearing legitimate in terms of quality management may be important, limited understanding of TQM and what it should achieve in the long run may limit the extent to which it may positively influence organizational performance. The decision to adopt TQM should be based not on the “everyone is doing it” craze, but the understanding that TQM implementation guarantees valuable efficiency and economic gains in the long term.

D. Lack of Front Line Managers’ and Employee Involvement

TQM implementation can as well be constrained by lack of involvement of front line managers and employees in the implementation process [3]. People involvement is one of the major principles of TQM. The principle implies that everyone in the organization should be viewed as a significant player in the entire process. It implies providing an opportunity for middle managers and employees to give suggestions regarding the change process, listening to their concerns, familiarizing them with the implications of the change on their role, and effective communication. Effective communication is particularly important as it ensures that every employee understands the direction of the organization [19]. On the whole, involving middle managers and employees plays a crucial role in overcoming one of the major obstacles to change – human resistance [10]. It provides an assurance to them that the organization values their contribution to the organization.

Change management literature has shown that change initiatives often raise fears and anxiety amongst employees due to factors such as likely disruption of organizational structure, possible relocation to another department or region, possible layoffs, and perceived disruption of autonomy [21]. This is particularly true for middle managers who may perceive the TQM transition as a cost to their position, authority, and recognition [10]. In this regard, involving middle managers and employees enables the management to understand their fears and, thereby, address them accordingly. Given that middle managers and employees are directly affected by change initiatives, particularly because they are directly involved in implementation, involving them throughout the TQM process can increase the chances of TQM success.

E. Resource Constraints

Another factor that can hinder TQM implementation relates to resource constraints [12]. Resource constraints in this regard denote not only financial but also human resource limitations. Since TQM initiatives entail adjusting or introducing new processes, and/or training employees,
significant cost implications are often involved. In fact, though the management may be committed to quality improvement, it may be financially handicapped to execute all the policies and strategies that come with TQM [19]. It may be extremely difficult for an organization in financial distress to sustain the gains of TQM efforts [10]. In addition, since TQM entails not only technical but also human aspects, lack of the necessary skills and abilities on the part of the management and employees can constrain TQM success [10]. Everyone in the organization must have an understanding of what TQM entails and, most importantly, portray the skills necessary for a TQM culture such as teamwork.

The challenge of resource constraints is particularly true for small and medium enterprises (SMEs) [2, 5]. Nonetheless, it has been argued that SMEs are in a better position to implement TQM and change initiatives in general compared to large organizations since they have greater flexibility and agility, more adaptable human resources, and less bureaucratic structures [5]. Despite the associated cost implications, the returns of TQM are often worth the investment in the long run.

TQM barriers are not limited to the above factors. Other TQM implementation challenges include management and employee turnover, unsuccessful previous organizational change, conflicts between the management and employees, unrealistic expectations, lack of a good information management system, and employee shortage [10].

V. CONCLUSION

This paper sought to discuss the challenges and difficulties relating to TQM implementation. This is a topic that has attracted a great deal of scholarly attention since the introduction of the TQM notion in the 1980s and 1990s. The attention has particularly stemmed from the numerous instances of TQM failure—in most cases TQM implementation has failed to yield the desired gains. Research has identified a number of factors that constrain TQM success: lack of leadership and management commitment, poor planning and deployment, inappropriate selection of TQM implementation models and tools, organizational culture incompatibility with TQM values, inadequate knowledge of TQM practices, resource constraints, lack of a long-term orientation, and lack of people involvement.

It can be seen that most of these challenges boil down to organizational culture. In fact, it has been identified as the greatest barrier as far as TQM implementation is concerned. Organizational culture essentially defines how things are done in an organization. It embodies the values, traditions, beliefs, and assumptions that bind members of a particular organization. Since TQM espouses values such as people involvement, employee empowerment, teamwork, collaboration, and participative management, an organizational culture that does not resonate with these values makes it quite difficult for a culture of quality to thrive. This actually explains why TQM often fails in organizations characterized by autocratic leadership styles. Given the implications of organizational culture on TQM success, the senior management has an important role to play in terms of aligning organizational culture with TQM values and providing the necessary resources and support. Nevertheless, for the management to effectively play this role, they must be sufficiently knowledgeable about what TQM entails and how it should be approached.

Overall, TQM implementation has immense potential to positively influence organizational performance. Nevertheless, organizations must first address the underlying barriers that may hinder the survival of a quality culture. This understanding has significant implications for practice. It is clear that TQM implementation should start with an evaluation of organizational culture. Organizations must first assess their values, beliefs, norms, and traditions are in tandem with TQM practices. Starting from this point implies that other challenges such as leadership commitment can more readily be dealt with.

REFERENCES


