Total Quality Management as a Cultural Phenomenon

JAAKKO KUJALA AND PAUL LILLRANK, HELSINKI UNIVERSITY OF TECHNOLOGY, FINLAND

The origin and development of the quality management discipline as a practice-oriented approach to management has provided a challenge for academic research that aims at discovering the theoretical foundations of total quality management (TQM). The ISO 9000 family of quality standards and quality award criteria have led to the practical development and diffusion of the discipline, and currently they provide the most comprehensive definition for TQM. The Malcolm Baldrige National Quality Award has been selected as the practical definition of TQM for this study.

TQM is studied as a cultural phenomenon. The multiple levels of the discipline are identified and analyzed based on Schein's framework for organizational culture. The focus is on the most comprehensive level, the analysis of basic assumptions underlying the more visible levels of quality management. They include an organization's mission and relationship to external environment, the nature of human nature and relationships, and the nature of reality and nature of time. An integrated set of mutually compatible basic assumptions forms quality culture, which is considered to be the theoretical foundation of quality management. In practice, the implementation of a successful quality management program requires a change in organizational culture to be compatible with quality culture. Theoretical analysis and development of the discipline should focus on understanding the consequences of some superficial assumptions inherent in the discipline, and implementation problems that arise from a mismatch between quality culture and organizational culture.

Key words: organizational culture, quality management

INTRODUCTION

Several researchers have given a rather pessimistic view to the future of the quality management movement (Hackman and Wageman 1995). However, quality management has proved itself to be more than just a short-lived management fad. It has even survived the failure of some of its success stories, such as Motorola and Xerox (Reed, Lemak, and Montgomery 1996). The ISO 9000 family of quality standards and quality award criteria have boosted the practical development and diffusion of the discipline. They provide the most comprehensive and practical recipes, as well as operational definitions, on improving quality. When it comes to fundamental issues of organization, management, and economics, however, total quality management (TQM) remains poorly defined and its scientific foundations are weak.

The quality movement has a scientific basis in the statistical control of manufacturing processes, that is, quality control. Since the late 1980s, it has been increasingly applied to the business-level management of an organization (Saraph, Benson, Schroeder 1989; Grant, Shani, and Krishnan 1994; Pyzdek 1999; Dahlgaard 1999). The objective in the original approach was to manage the production process so that it achieved and maintained a consistent, desired level of quality. As the scope of TQM expanded, the issue became how to define quality in a larger context and how to take into account the complexities of managing social systems (Kujala 2002).

In this article TQM is studied as a cultural phenomenon. Edgar Schein's model of organizational culture is used to create a multilevel framework (Schein 1992). It has four interrelated levels: basic assumptions, core concepts and principles, management areas, and management practices. This research focuses on basic

assumptions. These are implicitly inherent to the discipline but difficult to articulate. A process of deconstruction is used to uncover the core basic assumptions that support the implementation of a TQM program. They constitute the basic beliefs of an organization that has been able to fully implement TQM. These include beliefs expressed by an organization's mission and relationship to its external environment, human nature and relationships, the nature of reality and truth, and the nature of time and space.

TQM AND ORGANIZATIONAL CULTURE

Current Conceptual Foundation of TQM

reason why so successful ?

The definition of TQM did not develop as a result of the academic analysis of existing management and organizational theory (Grandzol and Gershon 1997). The discipline evolved based on the practice-oriented works of J. M. Juran (1989), W. Edwards Deming (1986), and Kaoru Ishikawa (1985). They share a common set of assumptions and prescriptions (Hackman and Wageman 1995). They do not, however, provide a theoretically solid or empirically validated framework for TQM. Based on the initial and rather spectacular successes of applying statistical process control and systematic planning, these authors expanded their proposals to include issues such as employee motivation or the relation between customer satisfaction and economic results without subjecting their prescriptions to scientific scrutiny. Therefore, TQM, as expressed in the classical works, has a solid foundation of statistical thinking upon which a random collection of prescriptive management ideas has been erected.

This is best practice! academic "arrogance" ?

One major stream of quality management related research involves attempts to develop a generally accepted definition of TQM. There is an increasing number of empirically grounded studies that focus on identifying the most significant practices of TQM (Saraph, Benson, and Schroeder 1989; Benson, Saraph, and Schroeder 1991; Flynn, Schroeder, and Sakakibara 1994; Powell 1995; Flynn, Schroeder, and Sakakibara 1995; Ahire, Golhar, and Waller 1996; Black and Porter 1995; Grandzol and Gershon 1997; Dow, Samson, and Fort 1999; Zhang 2000). The idea, in other words, is to define TQM empirically as the trend among companies that are implementing TQM. There are also some theoretical analyses that create a conceptual foundation of quality management (Hackman and Wageman 1995; Dean and Bowen 1994). However, these studies have been unable to create one generally accepted definition of TQM, which could be used as the basis for theoretical and practical development of the discipline. A visible consequence of this is that many studies of quality-related issues begin with an author's own definition of TQM (see, for example, Powell 1995; Dow, Samson, and Fort 1999; Zhang 2000; Douglas and Judge 2001; Gustafsson, Nilsson, and Johnson 2003).

The lack of a theoretical foundation becomes an issue when TQM is applied to problems beyond its original application area in large-scale manufacturing. Several studies (Jauch and Orwig 1997; Westphal, Gulati, and Shortell 1997; Silverstro 1998; Ovretvait and Aslaksen 1999; Kock 2003) draw attention on the problems of TQM implementation in professional organizations, healthcare, and universities. However, these attempts have addressed only some implementation problems and do not provide a comprehensive theoretical analysis. As such they do not form an integrated theoretical foundation that could provide guidance on how to apply TQM principles to the various types of organizations.

where is the problem?

Contemporary Models of TQM

In recent years the development and survival of quality management has been increasingly based on two major frameworks of TQM: 1) the ISO 9001 family of quality standards, and 2) quality award criteria. Various authors (Juran 1996; Dean and Bowen 1994; Ford and Evans 2000) agree that quality awards, such as the Malcolm Baldrige National Quality Award and the European Quality Award, are currently the most extensive methods of approaching the TQM discipline. ISO 9001-based quality systems have traditionally taken a limited approach to TQM focusing mainly on ensuring the quality of the sales-delivery process, but

the recent developments of ISO 9000 quality management standards are consistent with the philosophy and practices of quality awards. Studies indicate that TQM reached an integrated set of commonly accepted practices as a result of the wide acceptance of these two frameworks (Wiele 1998).

Dean and Bowen (1994) identify several advantages of using the quality award criteria: The conceptual framework underlying the award addresses the principal domains of quality management. It has been updated to reflect current thinking on TQM, and it is not limited to a single perspective. Three major quality awards—the Malcolm Baldrige National Quality Award, the European Quality Award, and the Deming Prize—are the most recognized quality award models. The detailed content and structure of national, regional, and industry-based quality awards differ, but they share the same set of values and principles (Chuan and Soon 2000; Vokurka, Stading, and Brazeal 2000). In this research, TQM has been defined as the complete implementation of management approaches and principles that are described in the Malcolm Baldrige National Quality Award.

The inclusion of the implementation level in the definition recognizes that the "business results" category should be considered an integral part of the model. The principles and values explicitly emphasized in this category are management by fact, continuous improvement, and long-term goals of the organization. In this respect, this study deviates from the position of some researchers (Dean and Bowen 1994; Cole and Scott 2000) who have excluded the business results from their research, because they consider it to be simply an assessment of organizational effectiveness.

Quality Management as a Cultural Phenomenon

The research approach used in this study is based on the notion that TQM can be studied as a cultural phenomenon, because the concept of organizational culture matches the complexity and multiple levels of TQM (Kujala 2002). TQM programs go beyond implementing technical management practices and require a fundamental change in the way in which organizational members work together to meet customer requirements (Hackman and Wageman 1995). These changes cannot be analyzed by focusing on visible technical interventions, but by gaining a comprehensive understanding of the underlying cultural assumptions that support or prevent the success of those interventions. Organizational culture and TQM are not constrained by organizational boundaries. Traditionally, external stakeholders of the organization, such as customers and partners, are considered to be an integral part of the technical core of the organization.

In TQM, organizational culture has typically been treated in a manner that does not fully capture its multidimensional and complex nature (Lyndby, Dematteo, and Rush 1999). The theoretical background selected for this study is the cognitive cultural research paradigm (Schein 1985; 1992). This framework recognizes the various cognitive levels of culture in an integrated way. Culture may manifest itself in the form of practices or espoused values, but its essence is a coherent set of basic assumptions or beliefs concerning how the world behaves. Schein (1992, 12) defines organizational culture as "a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that have worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems." This definition can be applied to any size of social unit that has had an opportunity to stabilize its view of itself and its surrounding environment.

Mayerson and Martin (1987) propose the use of three cultural approaches: integration, differentiation, and ambiguity. The integrative approach seeks to identify cultural traits in an organization that, while not necessarily visible, are common to all employees and supported by management and various types of institutionalized behavior. The differentiation approach tries to identify subcultures, which may have different, even contradictory traits (Lillrank and Kostama 2001). Ambiguity is the result of studies where no cultural homogeneity or integration can be found or the culture is not yet fully developed (Schein 1992).

In this research an integrated approach has been selected for the basis of the authors' analysis. All definitions of TQM, the classics, quality award criteria, and the ISO 9000 family of quality standards assume or postulate the necessity of having or building an integrated quality culture under the leadership of top management. Lyndby, Dematteo, and Rush (1999) propose that the culture of an organization that has been able to successfully implement TQM is characterized by presence of an overarching set of norms and values.

Research on TQM as a Cultural Phenomenon

The study of TQM from a cultural perspective focuses on understanding the role organizational culture plays in the TQM implementation process. It is assumed that organizational culture is a major variance-causing factor in TQM implementation programs and that, ultimately, it is organizational culture that inhibits or allows the success of such a program. In general, research on organizational culture and TQM can be divided into two broad categories: 1) studies that focus mainly on TQM values, principles, and norms, and 2) those that focus on the basic assumptions of TQM. The former takes values, principles, and norms as the starting point for research and is based on the assumption that they can and should be controlled. The latter focuses on implicit assumptions on the nature of human beings, reality, human relationships, and external environment in which TQM values, principles, and norms are based upon (see, for example, Hackman and Wagement 1995). These assumptions are difficult to control and change, and as such they provide additional insight into the type of challenges organizations may face in their attempts to institutionalize TQM values, principles, and norms.

Research in this first category includes the Cameron and Sine (1999) definition of various types of quality cultures and Dellana and Hauser (1999) research that uses a competing-value approach in identifying which type of culture is important for TQM implementation. Zeitz, Johannesson, and Ritchie (1997) claim that the essence of TQM is cultural change and TQM practices are just tools for this change. Manley's (1998) research examines the TQM tools that enable management to alter organizational culture. This line of research implicitly assumes that management is capable of changing and creating a culture for successful TQM implementation and that this change is beneficial for the organization. Westbrook (1993) concludes that "If an organization wants to adopt TQM as guiding principle, it begins with an effort by management to make the culture supportive." McNabb and Sepic (1995) are more pessimistic about the potential for cultural change, and claim that organizational culture has a large influence on both the direction and the limits of organizational change. Reger et al. (1994), in their research into the difficulties implementing TQM, apply cognitive self-concept theories (organizational identity theory, personal construct theory, and self-discrepancy theory) to explain why planned organizational change, including cultural change, is often difficult and is resisted even by an organization's most loyal members.

Research into TQM's basic assumptions has focused on the implicit assumptions that are inherent in the discipline. These hidden assumptions obstruct the TQM implementation process if they conflict with the assumptions of the existing organizational culture. In his dissertation, Kekäle (1998) identifies the effects of organizational culture on the successes and failures of TQM implementation. He came to the conclusion that an organization has two alternatives when it comes to implementing TQM: 1) management may choose an approach that fits the existing organizational culture, or 2) may systematically attempt to manage a cultural change. Jauch and Orwig (1997) examine the assumptions of TQM in the context of higher education. They propose that difficulty experienced by TQM implementation programs has been caused by unstated assumptions in the TQM model. TQM may be useful in some areas such as administration, record keeping, and maintenance. In other areas, such as teaching and research, it violates the basic assumptions upon which such fields are based. In these areas TQM may be doing more harm than good. Grant, Shani, and Krishnan (1994) come up with similar conclusions in their study of TQM in the context of a Western business environment. They suggest that some of TQM's basic

strange ideas

Table 1 Levels of organizational culture and cultural framework for TQM.

Levels of organizational culture	**Conceptual model of total quality management (TQM)** (example based on customer satisfaction survey)
1. Artifacts • Visible organizational structures and processes	1. Management practices and approaches (Management practices, guidelines, procedures organizational structures, and processes) • For example customer satisfaction surveys
	2. Management areas • Customer and market knowledge
2. Espoused values • Strategies • Goals • Philosophies	3. Core values • Customer orientation • Fact-based management (Decisions can be based on survey information)
3. Basic underlying assumptions • Unconscious, taken-for-granted beliefs • Perceptions • Thoughts and feelings	4. Basic assumptions • The customer is the most important stakeholder in ensuring organizational survival or an organization has a moral duty to help the customer. • Physical reality is dominant and can be measured.

assumptions inevitably conflict with established Western management approaches, such as economic efficiency and profit maximization. On the other hand, Kujala (2002) concludes that many TQM assumptions are based on the neoclassical economic theory of perfect markets, rational actors, and the free flow of information. This line of research establishes the need for a better understanding of the cultural assumptions, which are central to a successful TQM implementation program.

CULTURAL FRAMEWORK OF TQM

The multiple levels of TQM have been acknowledged in the structure of the quality award criteria. They include three levels: core values and concepts, management areas, and management practices. The ISO 9001:2000 quality management system is built upon visible management practices (quality management system), but it also identifies quality management principles, which provide a framework for management to lead its organization toward improved performance.

The cultural framework of TQM applied in this research is built upon Schein (1992). In Table 1 a cultural framework of TQM and a related model of organizational culture are shown. It provides a framework by which to study principles, values, and the management practices associated with ideal quality management. An example of one specific quality management practice, the customer satisfaction survey, is used to illustrate the model.

The most visible level of organizational culture is composed of artifacts. This level includes organizational structure, policies, procedures, and other elements that are apparent to an external observer. For practical purposes it is divided into two levels: management practices and approaches, and management areas. The second level consists of espoused values, or explicitly articulated core values that can be conveyed to an external observer. They can be used to rationalize and justify behavior (Buchanan 1991, 25).

The basic assumptions form the most comprehensive level of organizational culture. They are similar to the "theories in use" described by Argyris and Schön (1996). They form a basis that establishes how organizational members perceive their environment and determines their course of action in specific situations. Empirically basic assumptions are a problem, since, by definition, they cannot be directly taken from explicit statements, but must be logically derived from various types of observations.

Basic Assumptions

The initial list of basic assumptions in organizational culture is discussed in Schein (1985; 1992). However,

Table 2 Total quality management basic assumptions (quality culture).

1. Organization's mission and relationship to nature
- 1.1. Proactive and harmonized relationship to the environment: An organization should continuously scan its external environment to proactively respond to the needs of external stakeholders, specifically those of the customer.
- 1.2. Customer dominating in supplier chain relationship: An organization should respond to the needs of all stakeholders, but the customer has a dominant role and priority when setting organizational objectives. This also applies further down in the supplier chain, where an organization has a dominant role in relation to its suppliers/partners.

2. The nature of reality and truth
- 2.1. Objective physical reality dominating: Scanning of internal processes and external environment produces context independent and objective information, which can be used as a basis for decision-making process. Objective physical reality is limited and shaped by quality ideology.
- 2.2. Continuous improvement by analyzing objective facts: It is beneficial for an organization to continuously improve the organizational processes. This improvement should be based on the analysis of objective information.

3. The nature of human nature and relationship
- 3.1. The basic nature of human good: All employees, by nature, have an endogenous will and motivation for good work; they are capable of improving themselves, and employees align their personal objectives to comply with those of the organization.
- 3.2. Central role of senior management: Senior management has a key role in ensuring organizational effectiveness, and they have the legitimacy to set organizational objectives.
- 3.3. Teamwork is more valuable than individualism: Teamwork across functional and legal boundaries of the organization is required to manage and improve organizational processes.

4. The nature of time and space
- 4.1. Future orientation—time to wait for results: Organizational stakeholders prefer to have long-term relationships and they have the patience (and resources) to wait for results.
- 4.2. Efficiency through planning and coordination: An organization is a set of interrelated parts and in order to improve overall effectiveness, activities should be carefully planned for coordination and alignment.

only elements of cultures relevant to a particular purpose can be identified (Zeitz, Johannesson, and Ritchie 1997). Quality culture is a subset of organizational culture (Dellana and Sine 1999). Therefore, quality management's basic assumptions include only those relevant to TQM. Grant, Shani, and Krishnan (1994) argue that even though there is not an explicit theory of TQM, some "theoretical assumptions," which underlie the principles and techniques of TQM, can be identified. Hackman and Wageman (1995) regard TQM as being based on interlocking assumptions about quality, people, organizations, and the role of senior management.

A set of TQM's basic assumptions is generated in this research and is listed in Table 2. These assumptions are generated through a thought experiment. This is following the method used in economics, where artificial worlds, such as perfect markets and rational actors, are constructed. Within these worlds various regularities, such as supply-demand curves, are postulated. Applying this method to organizational studies one imagines an organization that is able to perfectly implement TQM. In such an organization artifacts, espoused values, and basic assumptions are coherent. Furthermore, one assumes that such an organization operates in perfect harmony with its environment. Within this artificial reality basic assumptions can be logically extracted. As in economics, these assumptions are, in practice, always compromised. For example, no experienced manager would claim that the nature of a human being is purely good or that all decisions in the organization are based on objective facts. The main advantage of this ideal model is that it provides a simplified and pure framework for the analysis of the interrelationships among basic assumptions.

For example, customer orientation is generally accepted and is a frequently espoused value. It is based on the assumption that the customer is the most important stakeholder for an organization, and that the justification or an organization's existence lies in its ability to meet customer requirements and expectations. On this level it contradicts stakeholder theory, which suggests that the relative importance of various stakeholders should be evaluated based on the strategic

importance they have for an organization (Freeman 1984). From this it follows that a customer-oriented organization would thrive in an environment where customers have significant bargaining power, while such an organization would face difficulties in situations where other stakeholders, such as regulators or suppliers, are dominant. Similar analysis can be applied to any basic assumption, which effectively provides a linkage between quality management and organization and management theories.

too narrow a view

Historical analysis of basic assumptions. The analysis of the development of quality management is useful in understanding why specific basic assumptions are part of the discipline. It can also be extended to include studies of whether certain assumptions remain valid or appropriate in certain application areas.

It can be assumed that early successful applications of quality management contained basic assumptions that were valid in those circumstances. The Japanese influence is especially important, because the Malcolm Baldrige Quality Award criteria draw on the quality management practices developed in Japan. The development of the discipline in the late 1980s was influenced by the intense competition from Japanese companies in U.S markets (Cole 1998), particularly in automobiles, home electronics, and other manufactured products. Some of the basic assumptions reflect the success of quality management in mass manufacturing. Factories are relatively closed systems and manufacturing processes have a high degree of repetition. In such contexts external physical reality is dominant. It is visible, measurable, and easy to interpret. Statistical analysis of process data can be used to find the root causes of variation. Continuous reduction in variation produces measurable effects on costs and customer acceptance. The concept of quality and the goals for quality management are rather easy to determine in this type of environment. Additionally, a reduction in variation benefits all stakeholders and can therefore be postulated as a common, apolitical objective for everybody. Such approaches do not work as well in the management of an organization as a social system.

Core/Espoused Values

One distinguishing factor that separates TQM from most other management innovations is that it reaches beyond tools and techniques. It explicitly defines a set of values integral to the discipline. TQM also provides guidelines for value-based management. It is an attempt to achieve coordination by establishing a normative set of high-level values that should guide decision making in situations to which manuals do not offer detailed instructions. Core values have an important role in designing management approaches and organizational structures. According to NIST (1999, 1), they provide "foundations for integrating key business requirements within a results-oriented framework." Additionally, an organization operates in connection with its environment, and external stakeholder values must be considered when designing management approaches. Freeman (1984, 91) states that if an organization wants to implement its strategy, "the values of those affected by it must be factored into the equation."

TQM values are typically nonconfrontational and generally acceptable (Manley 1998). TQM values, such as customer orientation or continuous improvement, have a "motherhood and apple pie" character. They are used to explain and rationalize behavior, but to what degree they actually guide behavior depends on whether the underlying organizational culture supports those values. CPE explicitly defines a list of 11 core values and principles and ISO 9000 provides a similar, but slightly more focused, set. There are no provisions in either CPE or ISO 9000 that state under which conditions an organization would be able to discard any of these core values. As they have been stable since 1992, and converge with the values identified in TQM research, one can conclude that there is a clear agreement on TQM's core values (see Table 3).

Core values do not necessarily predict the actions in certain situations. As such, they cannot be used alone to study whether TQM programs change behavior. For example, people in an organization may claim that they are customer oriented if that is the principle that is espoused by that organization. However, this statement does not necessarily lead to behavior that is consistent with the core value of customer orientation. Similarly,

Table 3 Total quality management core values.

1. **Organization's mission and shared objectives**
   - 1.1. Results focus: The instrumental role of an organization is to serve stakeholders with the main focus being on the customer, employees, and society.
   - 1.2. Customer orientation: The organization must be sensitive to changing customer needs and expectations, meet customer requirements, and strive to exceed customer expectations.
2. **Management approach and organizational decision-making process**
   - 2.1. Continual improvement: Continual improvement of performance is a permanent objective of an organization.
   - 2.2. Management by fact: Management decisions should be based on the analysis of objective data and information.
3. **Role of management and involvement of employees**
   - 3.1. Leadership: Leaders establish the unity of purpose and direction for the organization.
   - 3.2. Valuing employees: The development and involvement of employees at all levels of an organization.
4. **4. Planning, coordination, and time-related performance**
   - 4.1. Long-range view to future: Organizations should have constancy of purpose and seek to build long-term relationships between key stakeholders.
   - 4.2. Design quality: Quality must be built into products and processes, and mistakes must be identified early in the production.
   - 4.3. Systems approach: Identifying, understanding, and managing the interrelated processes and functions as a system contributes to the organization's overall performance.
   - 4.4. Partnership development: Organizations need to build partnerships to better accomplish tasks (partners as part of the system).
   - 4.5. Fast response: Fast response to changing customer requirements and complaints is critical for organizational success.

if the focus of TQM implementation programs is only on visible practices or espoused values, new procedures are accepted and implemented only for show without actually changing behavior (Zbaracki 1998).

Management Areas

Quality award criteria are structured into six categories, which are designed to cover the main areas that are critical for the effective management of an organization: leadership, strategic planning, customer and market focus, information and analysis, human resource focus, and process management. It can be considered that these management areas define the scope of a TQM implementation program. The systems approach for management is built on the basis that an organization is comprised of a system of interrelated parts and to achieve the best overall results, managerial actions should carefully consider the interrelationships among various management areas. These interrelationships are well described in managerial literature about CPE implementation programs (see, for example, Blazey 1999). The main deficiency of the system approach in quality award criteria from the authors' research perspective is that the focus is on the relationships among management areas. The relationships among core values or basic assumptions have not been similarly examined.

According to the cultural model used in this research, visible levels of organizational culture are reflections of basic underlying cultural assumptions. Although each item (management area) is influenced by all basic assumptions, those assumptions that have the most significant influence on each management area can be identified. For example, leadership categories are based on the assumptions that senior management plays a central role and has the ability to change organizational culture.

Management Practices and Approaches

Management practices and approaches are the most visible part of the discipline. At this level, the focus is on the artifacts that managers create to enable an organization to meet its mission and objectives. These include organizational structure, guidelines, procedures, and specific tools and practices. While management areas define the scope of TQM, the focus is on the depth and details of the management approaches selected to achieve objectives set for each management area.

In theory, an organization is free to select any management approach necessary to meet the main purpose and requirements of the management area, which are linked to the organization's business requirements. The MBNQA criteria state that "The Criteria do not prescribe: specific tools, techniques, technologies, systems, measures, or starting points; an organization should or should not have departments for quality, planning, or other functions; how the organization itself should be structured; or that different units in an organization should be managed in the same way" (NIST 1999, 6). However, in practice, there are institutionalized TQM practices, which are spread through multiple channels: practical guidebooks on how to implement TQM systems in order to meet CPE requirements, quality-related journals, quality consultants, and quality award criteria processes. It should be noted that "to facilitate communication and sharing of the best practices" (NIST 1999, 1) is one of the core objectives for establishing the criteria, and award winners are required to share their most effective practices (Malcolm Baldrige National Quality Improvement Act of 1987).

Even though CPE emphasizes that management approaches should be built on core values and principles, the widely spread success stories of various TQM approaches have led to a situation where TQM practices are a heterogeneous set of management approaches that have been proven to work in specific contexts. As such, they are not interesting in the attempt to examine the theoretical foundation of TQM. From the authors' research perspective those management approaches, which are compatible with TQM basic assumptions, are considered quality management approaches.

Constructing Quality Culture

According to Schein (1992), organizational culture is a collection of mutually compatible basic assumptions. If TQM basic assumptions form such a structure, they form a quality culture. On the other hand, if some basic assumptions are contradicting, it may indicate that quality management does not have a sound theoretical basis and is just a collection of random management approaches. Basic assumptions are in harmony with some activities, while discouraging and downplaying others. In this analysis, basic assumptions are grouped around three concepts. They are: 1) objectives of an organization, 2) managerial decision-making process, and 3) the nature of an organization. These should form a compatible conceptual structure, an ideal quality management culture.

Objectives of an organization.

According to the TQM basic assumption, an organization has an instrumental role in meeting and exceeding customer needs and expectations, and to a lesser extent, other stakeholder expectations. The relationship to the environment is passive, but proactive. Thus, the environment needs to be scanned continuously, placing a heavy burden on internal processes. The organization is expected to stay in harmony with the external environment. The customer is the most important stakeholder of the organization, and the customer defines quality. The concept of the customer can also be applied to the organization's internal customers. Senior management seeks to ensure that all employees share values that focus efforts on meeting and exceeding customer needs and expectations. This, in conjunction with the assumption that physical reality is known and measurable, leads to the approach that both customer requirements and the effectiveness of meeting them can be measured and analyzed. With these assumptions an organization does not attempt to change the environment to match its capabilities, that is, such an organization does not aim at being a market-maker.

Managerial decision-making process.

TQM takes a rational approach to management. An organization's decision-making process is based on the analysis of objective information gathered through a measurement system. Senior management derives organizational objectives from its mission and relays them throughout the organization in the form of clear objectives. The context independence of information enables the effective use of information gathered from multiple sources. Employees are given the freedom to perform within defined limits to achieve their objectives. Senior management creates a shared culture, which enables

employees to perceive and interpret data in a similar manner. The reliability and validity of the information related to social systems is based on assumptions concerning the rational behavior of human beings. Long-term focus and future orientation are important, because a continuous incremental improvement process requires stable objectives. Improvements in process performance are generally small, but over time they may produce significant combined results. Where such assumptions are dominant, companies do not trust intuitive reasoning or thinking outside the box.

The nature of an organization.

The nature of an organization is perceived as a system of interrelated functions. For a system to function efficiently, it needs to have a common mission and goals. The origin of TQM is large-scale repetitive manufacturing. A central approach to effective management in this type of environment is standardization of tools, methods, procedures, and means of communication, all aimed at promoting coordination. Shared values enable employees to communicate with each other effectively by means of standardized terms, concepts, and language use. Cross-functional teams optimize the performance of the overall system. Employees willingly take their role as parts of the system and align their objectives to those of the larger system. If basic assumptions support a view of an organization as functionally integrated and harmonious, managers are unable to deal with internal politics and conflicting interests within the organization.

The construction of an ideal quality culture demonstrates that not only are cultural elements compatible, but there is also a strong interrelationship between some of the basic assumptions. TQM is based on a sound theoretical foundation, which can be called a quality culture. Those management principles and approaches that are congruent with this culture can be considered quality management approaches.

ISSUES AND IMPLICATIONS

The identification of quality culture as a theoretical foundation of the discipline brings forward some issues that have influence on practical implementation programs and research objectives. TQM implementation failures are often addressed as general implementation problems related to the management of change (Reger et al. 1994; Knights and McCabe 1999) without sufficient analysis of the content to be changed. This analysis suggests that the success of implementation depends on existing organizational culture.

Implications to Practice

The argument brought forward in this research is that variation in the success of TQM implementation is related to the discrepancies between the existing organizational culture and the ideal quality culture. TQM programs are more likely to succeed if the prevailing organizational culture is compatible with the values and basic assumptions proposed by the TQM discipline. This conclusion is similar to one reached by Cameron and Sine (1999). Many researchers are pessimistic about radically managed changes in organizational culture (Schein 1992; McNabb and Sepic 1995). Consequently, the success of quality management implementation programs could indicate whether an organization's pre-existing culture is with quality. If an organizational culture diverges significantly from ideal quality culture, the implementation process will be slow and difficult. In some cases there might be opportunities to modify approaches that more effectively match existing cultural assumptions. It may also lead to selecting alternative management approaches. For example, an organization developing new technological solutions for emerging markets cannot base its activities on objective information gathered about existing customer needs and preferences that are analyzable with objective data.

Implications to Research

From the perspective of academic research, the question is whether TQM constitutes a special field of organizational research or if it is merely one practice-oriented management innovation among many. Existing research has focused mainly on the latter. The main effort has been in describing contemporary TQM management approaches and the most effective

manner of implementing them. This type of analysis may be useful for the practical understanding and development of the discipline, but it does not build a solid foundation for a theory of TQM. Senge (1999) asserts that without a unifying conceptual framework, the quality movement may fragment into isolated initiatives and slogans.

This lack of theoretical basis may be one of the reasons that academic research has failed to benefit from the development of the discipline. In this research it is proposed that TQM should be studied as a cultural phenomenon with a coherent set of underlying assumptions that form an ideal quality culture. Quality culture can be considered the theoretical foundation of TQM, because in the more visible levels it cannot be clearly separated from other management innovations. It provides a connection to other fields of academic research, but can also be used as a tool for studying the practical application of TQM. Existing fields of academic research can be used to critically examine any TQM basic assumptions, which would enable researchers in the various fields of organizational and management research to contribute to the development of the discipline.

The authors propose that quality-related research should focus on the ideal quality culture, and examine which environments or conditions could support such a culture, and what would be the consequences of mismatch between ideal and actual quality cultures. It is obvious that the assumptions, which form ideal quality culture, are rather superficial, can be easily challenged, and are ineffective in different contexts. However, this criticism of TQM should be constructive and based on existing research on various field of organizational and management research. They provide an analysis on the alternative and consequences of relying on various TQM basic assumptions. For example, agency theory (Eisenhardt 1989) provides a different perspective to the customer-supplier relationship. It brings up some of the limitations of a rather naïve customer-relationship model of TQM and can be used to analyze how TQM customer-related practices could be improved and better applied in various contexts. Only this way can one create a strong theoretical foundation for continuous improvement of the discipline, which would enable successful implementation in areas beyond its original application in large-scale manufacturing.

CONCLUSION

In this research TQM has been defined as the complete implementation of quality management principles and practices as defined in quality award criteria. As there is no such thing as a perfect implementation, these research results cannot be empirically validated nor do they directly provide any normative guidelines. The point, however, is that by assuming a complete implementation, it is possible to derive a theoretical foundation of quality management, as it is defined in the Malcolm Baldrige National Quality Award criteria. This makes it possible to compare TQM with existing theory. A theoretical foundation of TQM enables one to focus on most relevant issues in both research and practical applications.

TQM has expanded to include all areas of management and almost any management approach that works in practice can be considered quality management. This has kept the discipline alive but diluted its significance. The true nature of the discipline can only be understood by revealing its deeper implicit assumptions and by focusing research on those assumptions. For practical applications, TQM managers need to understand existing organizational culture and whether it is compatible with quality culture.

because it is largely ignored and most academics have no idea about practice!

and vice versa!

rubbish!

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BIOGRAPHIES

Jaakko Kujala works as a senior researcher and lecturer at the Helsinki University of Technology. He has an extensive industrial background in Metso Corporation, where his main work focused on quality management and the development of business processes. His research interest includes quality of management in project-oriented and professional organizations. He can be reached by e-mail at Jaakko.kujala@hut.fi .

Paul Lillrank is professor of quality management at Helsinki University of Technology. He has earlier held positions at Science University of Tokyo and the European Institute of Japanese Studies at Stockholm School of Economics, and worked with the Boston Consulting Group in Tokyo and Stockholm. He is engaged in research on the quality of information and quality management in professional organizations. He has also published in the areas of Japanese management, the software industry, and technology transfer.