Soft Total Quality Management and Organization Sustainability: National Culture Implications

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Abstract

Like Darwin's theory of evolution suggests, the world is continuously changing. It is essential for organizations to inquire about new techniques to survive in this changing environment. A new stage of TQM, soft TQM, is supplied in this research as one approach to assist organizations in maintaining a competitive advantage. This study examines the statements of soft TQM and its relationship to an organization's sustainability and explores differences in soft TQM execution in different cultures. The samples were recruited from American, Japanese, and Taiwanese companies. A total of 207 volunteers participated in this survey. Results identified the statements for soft TQM and indicated that soft TQM constructs have statistically significant correlation with an organization's sustainability. In addition, some soft TQM practices have significant differences in American, Japanese, and Taiwanese organization culture. Extending these findings to organization development, first, this study provides a whole picture for the soft side of TQM; second, it presents an empirically cross-cultural comparison of soft TQM implementation, which indicated strengths and weaknesses for different organizational cultures; third, it generates an instrument for soft TQM measurement; lastly, it offers executable behavior for soft TQM.

Dedication

This dissertation is dedicated to those who supported and demanded its completion.

Acknowledgments

For me, it is a long journey to complete my dissertation. Throughout this journey, as always, I am grateful for the love and moral support of my parents, who are very traditional Taiwanese parents and are not used to being praised publicly. They insist that I not mention their names here, but I still want to say thank you and I love you to them. To my other dear family members—my sisters, Professor Chiung-Wei Yeh, and Chiung-Jiun Yeh, and my brother, Professor Te-Hui Yeh—without your support, I might never have completed this journey.

To Benedictine University's PhD OD program, I must thank you for the scholarship. In addition, I want to offer special appreciation to my dissertation committee chair, Dr. Therese Yaeger, and to committee members, Dr. Peter Sorensen and Dr. David Jamieson. Confucius, a great oriental educator and philosopher, advocated that the best educators must follow these criteria: the principle of teaching without prejudicial discrimination and the principle of adaptation to individual differences in learning environments. As an international student, I would like to thank Dr. Peter Sorensen and Dr. Therese Yaeger for your patience and appreciative guidance that help me to overcome the barriers in this rigorous doctoral education.

To Dr. George Cheney, Dr. Lyman W. Porter, Dr. Van der Heijde and Dr. Van der Heijden, thank you for sharing the measurement instruments for employee

commitment, organizational identification and employability with me. I sincerely thank you for your generosity.

Finally, I would like to say thanks to my friends who helped to dispatch the web linkage of my research questionnaire. Thanks to all the anonymous informants who contributed their time and experience in completing the questionnaire. Thank you.

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Chapter 1: Introduction

Like Darwin's theory of evolution suggests, the world is continuously changing. Increasingly more studies show that quality management programs in organizations have no longer demonstrated success as before. In the meantime, a few researchers argued that quality programs fail because they lack human concern in implementing quality management activities. In addition, some scholars found that quality management projects would work successfully under certain national cultural dimensions. To understand further the grounds that help make future organizational development more competitive, this dissertation investigates the nature of the soft aspect of Total Quality Management (TQM) and the relationships between soft TQM and organization sustainability in different national cultural backgrounds.

This chapter summarizes the statement of problem, the purpose of this study, the research questions, the research methods, the definition of terms, the chapter summary, and the sequence.

Statement of the Problem

New technologies developed in the twentieth century broke the natural boundaries of regions and thus made cross-regions commerce so frequent. Organization development (OD) and total quality management (TQM) concepts are American management techniques that are implemented overseas. Both OD and TQM are often

treated as if they are universal. Over the past few decades, TQM has become a guiding principle for various industries and organizations and is well known in utilizing statistical approaches to control the whole process. However, researchers contend that TQM programs have proved to be insufficient because of the so-called soft factors of TQM, such as management's leadership, employee participation, and learning for change (Morrison & Rahim, 1993; Beer, 2003; Rahman, 2004). These factors and statements of soft TQM are subject to change according to different scholars.

Additionally, Flynn and Saladin (2006) examined the relationship between Malcolm Baldrige Quality Award criteria and Hofstede culture dimensions. Their findings indicated that quality management would prove more successful in national cultures with higher levels of power distance, uncertainty avoidance, masculinity, and collectivism. The mentioned culture dimensions seem more familiar with the practice of the hard parts of TQM (e.g., JIT, SPC usage, process management). Bordering on consistent cultural dimensions for TQM, Japanese national culture works quite well because of higher levels of power distance, uncertainty avoidance, masculinity, and collectivism, and it is legendary in quality management execution (Flynn & Saladin, 2006). It is no wonder that soft TQM is restricted by different cultural backgrounds.

Organization sustainability becomes a popular issue in the twenty-first century (Presley et al., 2007; Orlitzky et al., 2003; McMullen, 2001). The stated objective of

organization sustainability is mostly applied to social and environmental systems (Thompson et al., 2010; Fisher, 2010; Montiel, 2008; Robins, 2006). Some large enterprises put forth much effort in environmental protection to have contributed to the whole system. However, the ecological issues are too theoretical and too complicated for normal companies. According to Gakidou et al., "Health is an intrinsic component" (2000, p. 42). For the same reason, organization sustainability should consider the impact of the employee.

During recent Midwest Academy of Management proceedings, Yaeger and Yeh (2011) proposed a new model of organization sustainability where organization sustainability is constructed by organization identification, employee commitment, and employability. This model is established from a practitioner point of view for organizations rather than from global ecological issues. As mentioned, the world is continuously changing. To survive in this turbulent world, organizations are required to capture new approaches to achieve and maintain superior competitive advantage.

Purpose of the Study

There are a multitude of books and articles regarding the practice of TQM. Samson and Terziovski identified over 1000 articles on TQM philosophy and methods, but only a small percentage of these articles attempted to test the relationship between TQM and organizational performance (1999, p. 394). In addition, studies that discussed the relationship between TQM and organizational performance across culture are rare. In terms of TQM categories, only a few scholars argued the

differences between soft and hard parts of TQM. Most published papers focused on the constructs of soft TQM but not on statements for it.

This research has practical values for organizations. First, it provides a whole picture and visible statements for prescriptive constructs of soft TQM. Second, it presents an empirically cross-culture comparison of soft TQM execution. The surveyed samples of this research are recruited from organizations with different national cultural backgrounds (i.e., Japan, Taiwan, and the United States). Japanese organizations could be the benchmark of TQM's implementation, while American and Taiwanese companies could represent the west and east cultural implementation separately. The correlation between soft TQM and organization sustainability (via organization identification, employee commitment, and employability) is tested in this study as well. This study provides further understanding of the grounds that help make future organization development more competitive and may have a great impact on future OD.

Research Questions

Based on the purpose of this study, the following research questions will be discussed throughout this dissertation:

Question 1: What are the statements for soft TQM's elements?

Question 2: Is there a difference in soft TQM practices under Taiwanese, Japanese, and American national cultural backgrounds?

Question 3: What is the correlation, if any, between soft TQM and organization sustainability (organizational identification, commitment of employees, and employability)?

Question 4: What is the correlation, if any, between soft TQM and organizational profitability and competitiveness?

Detailed rationale for these questions is described in Chapter 3.

Research Methods

This study uses a quantitative survey to measure the relationships among soft TQM, national culture, and organization sustainability. The survey design is based on the findings from the literature review. The survey population includes employees of Japanese, U.S., and Taiwanese companies. Thus, Mandarin, English, and Japanese versions of the questionnaire are available in this study.

Research Design

This research examines the reliability of proposed statements of soft TQM's constructs and its correlation with organization sustainability. Moreover, the difference in soft TQM execution under Taiwanese, Japanese, and American organizational culture is determined through the statistical analysis of the results. The research concepts cover culture and human practices that contributed organization theory as well as organization development dimensions. Figures 1 and 2 demonstrate the research framework for this study.

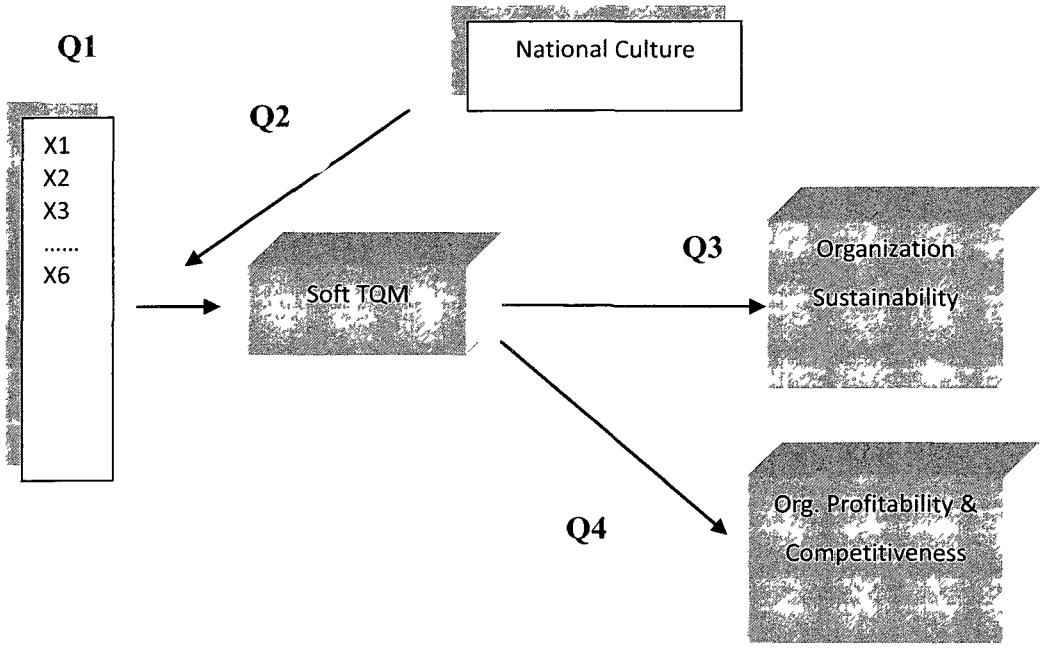

Figure 1. Research Framework Overview

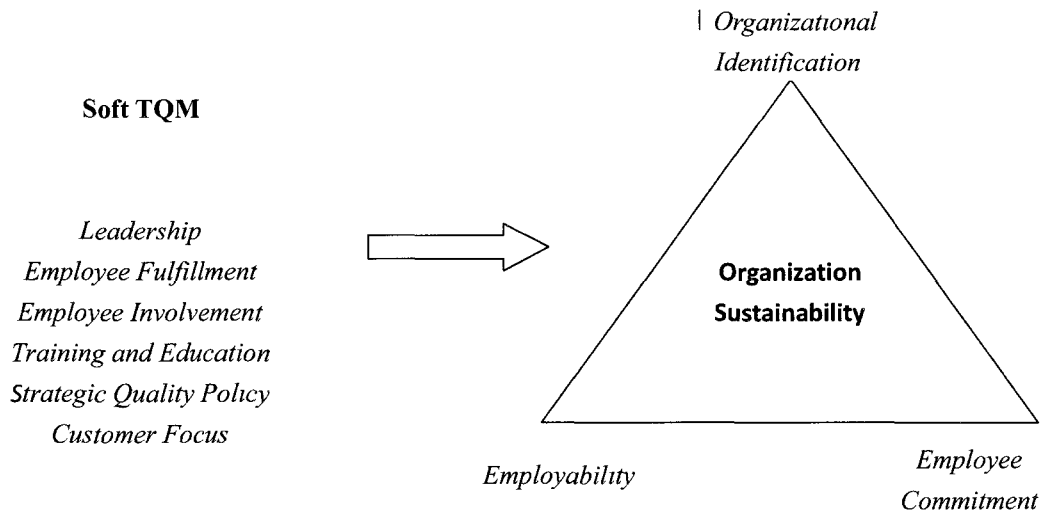

Figure 2. Research Framework: Elements of Soft TQM on Organization Sustainability as Individual Factors

Population and Samples

The population of this study covers three different national cultures. The researcher had worked in a local Taiwanese company and in an American and Dutch affiliated company in Taiwan. The working environment and climate of the Western and Eastern organizational cultures that the researcher experienced were obviously different. It is conjectured that even in Taiwan, organizations may retain their original national culture. Thus, this study relies on the assumption made by accounting firms that the national culture of origin affects the organizational culture (Pratt et al., 1993; Soeters & Schreuder, 1988). In turn, American and Japanese national culture may affect their affiliation's organizational culture in other countries (i.e., Taiwan).

To recruit respondents, an e-mail invitation was sent to American and Japanese companies with e-mail addresses listed on the Internet, and an advertisement was posted on the Facebook Internet community. All participants voluntarily agreed to participate in this study.

Data Collection

This research used an electronic survey to collect data. At the start of the survey, an announcement with an "I agree" box (similar to that in Appendix B) appeared on the webpage, requiring the interviewee to confirm that the survey was anonymous and that he or she voluntarily agreed to participate in the study. When he or she clicked the "I agree" box, the webpage displayed the main questionnaire. Only the researcher had the password to access the survey instrument and data.

Instrumentation

The survey for this study includes three divisions: soft TQM, organization sustainability, and participants' background. Questions for soft TQM statements were developed by the researcher because there was no existing instrument for soft TQM implementation. The survey's structure was based on Yaeger and Yeh's (2011) study that organization sustainability is constructed by organization identification, employee commitment, and employability. Questions for employee commitment, organizational identification, and employability are extracted from research by Cheney (1982), Porter and Smith (1970), and Van der Heijde and Van der Heijden (2006), respectively.

One typical Chinese characteristic is the inclination to choose the middle number or value when given a choice, which is "Zong-Yung" spirit (Lu, 2005). As a result, a six-scale Likert scheme is utilized in this study to account for the Taiwanese culture tendency. This six-scale scheme forces respondents to pick either lower or higher points in the scale but not the middle one. The survey instrument appears in Appendix C, and the Chinese and Japanese versions are available in Appendixes D and E.

Definition of Terms

TQM vs. Soft TQM

TQM is extensively recognized as the abbreviation for Total Quality Management since the mid-1980s. It combines methods, theories, techniques, and quality strategies for achieving exceptional quality, and it emphasizes the important role of

management in the quality process (Richardson, 1997). Quality practitioners, like Deming, Juran, and Crosby, emphasized the management of quality improvement efforts and the practice of statistical methods used in measuring and monitoring the quality control process (Shingo, 1986; Ooi, et al., 2005; Hafeez, et al., 2006).

More recently, Rahman (2001, 2004) summarized the studies regarding TQM and categorized two distinct groups: soft TQM and hard TQM. Hard TQM tends to use more practical, numeric, and systematic quality-control tools; soft TQM focuses on long-term natures and is more humanistic. The constructs of soft TQM are variable by different scholars' practices. Using existing research, the researcher consolidated the elements of soft TQM into the following: *management leadership, employee fulfillment, employee involvement, training and education, strategic quality policy,* and *customer focus*. Definitions of these elements are briefly described below.

Leadership

The European model of excellence (1999) defined a leader as one who is in a team leadership position, such as an executive. According to the Malcolm Baldrige Award and the European Quality Award criteria, the character of management leadership is in creating goals, values, and a continuously improving environment for business success. One critical responsibility of top management is to pursue quality improvements and to empower employees (EFQM, 1994; MBNQA, 2004).

Employee Fulfillment

Employee fulfillment means how an organization continuously satisfies employee's needs, including job satisfaction, job commitment, and pride of workmanship (Anderson et al., 1994; Grandzol & Gershon, 1998). Appropriate reward and recognition could also increase employee satisfaction. Kerr (1996) argued that employee fulfillment is one of the essential criteria for a company.

Employee Involvement

Robbins (2006) claimed that employee involvement is a participative process that uses the input of employees to increase their commitment to the organization's success. The underlying logic is that involving workers would increase their autonomy and their control over the work life. Thus, employees will become more motivated, more committed to the organization, more productive, and more satisfied with their job.

Training and Education

Training is not a one-time job but a continuous self-improvement education. Training and education nurse the organization's ability to develop its skills, abilities, and knowledge (Grandzol & Gershon, 1998). Within an organization, employees should be regarded as valuable, long-term resources worthy of receiving education and training throughout their careers (Abdullah, et al., 2008; Zang, 1999).

Strategic Quality Policy

The strategic quality policy focuses on the planning of a long-term objective for continuous improvement that pursues the organizational goals such as improving its

processes, products, and service (Grandzol & Gershon, 1998). Quality is a process not a program. Rao et al. (1999) argued that strategic quality planning must integrate quality and customer satisfaction into operational map.

Customer Focus

Anderson et al. (1994) proposed this element as customer-driven focus. According to Rampersad (2001), everyone in organization should consider continuous improvement as one's daily life to comprehend customer satisfaction. Like Toyota's successful sales experience, Toyota's vehicles are designed by customers' need, not by a top executive's opinion (Liker, 2004; Liker & David, 2007). In a way, quality can rely on customer satisfaction.

National Culture

Flynn and Saladin (2006) cited Hofstede's words that national culture is "collective programming." This collective programming develops as a result of the experiences shared by inhabitants of the same nation from those of another. Hofstede's work on national culture is often described as landmark and is widely used as a theoretical framework for guiding cross-cultural comparisons (Lundberg, 2007). Hofstede (1993) conducted research across forty countries and summarized most culture elements into four principal factors: Power Distance, Individualism, Masculinity, and Uncertainty Avoidance. Power Distance is defined as "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally"; Individualism means the degree that people prefer to act as individuals rather than as members of groups; Masculinity focuses on the scale

of "masculine" values such as assertiveness; and Uncertainty Avoidance is the extent to which a society feels threatened by uncertainty and tries to avoid it (Hofstede, 1980; Robbins, 2006).

Organization Sustainability

According to Zairi and Liburd (2001), organization sustainability is "the ability of an organization to adapt to change in the business environment to capture contemporary best practice methods and to achieve and maintain superior competitive performance." In addition, Yaeger and Yeh (2011) argued that no matter what challenges organizations suffered, employees are the foundation and the trigger to drive changes. Therefore, they hypothesized about organization sustainability using a practitioner point of view with organizationally social elements such as organizational identity, employability, and commitment to the organization.

Summary

Today's business environment is challenged by global competitiveness. New techniques are required for an organization to survive in this time. The introductory chapter presents an overview of the framework for this study. A new phase of quality management (i.e., soft TQM) research methodology is briefly introduced as well.

This study aims to define statements of soft TQM and to examine its relationship with organization sustainability in different national cultures. Soft TQM is the human side, people-related TQM. After reviewing sources, the researcher consolidated the key elements of soft TQM as management leadership, employee fulfillment, employee

involvement, training and education, strategic quality policy, and customer focus. Organization sustainability is not only related to short-term performance but also to a sustained competitive advantage, which provides a long-term advantage. The configurations are unique and not easily replicated.

Accordingly, the researcher employed a model using a practitioner point of view for organization sustainability, including organizational identification, commitment of employees, and employability. A quantitative survey is used to measure the relationship between and among variables. The questionnaire compiled questions based on the findings from the literature review. Survey samples were recruited from American, Japanese, and Taiwanese companies.

Chapter 2, Literature Review, introduces relevant literatures of OD, TQM, organization sustainability, and Hofstede national culture dimensions. Chapter 3, Methods, describes the research framework, research questions, and methodology. Chapter 4, Results, presents the survey result with appropriate statistical analysis. Chapter 5, Discussion, interprets the findings, conclusion, implication, limitation, and recommendations for future research.

Relevant references and appendixes appear at the end of the dissertation.

Chapter 2: Literature Review

This is a challenging time for organizations, which have suffered a mauling by the global financial environment. This financial crisis first affected the U.S. and European banking systems, and then the world economy exhibited a downturn. Many well-established corporations (e.g., American International Group and Lehman Brothers Group) could not afford this assessment and opted for bailout and bankruptcy. The challenges of development and survival confronting organizations require more inventive techniques for them to stay competitive. In addition, to be global, organizations need not only do business internationally but also overcome national culture diversity to step forward in the world. The humanistic approach of TQM offers one technique for organizations to sustain a competitive advantage.

Therefore, this chapter aims to describe the history of OD; briefly illustrate national cultural background; depict the evolution of quality management; describe the construct of soft TQM; discuss the relationship among national culture, OD, and TQM; provide the theoretical foundation of organization sustainability; and summarize the chapter.

Organization Development (OD)

Organization development (OD) has existed for more than fifty years. OD has been defined in a number of ways. Cummings and Worley (2001) contend that

"Organization Development is a system-wide application of behavioral science knowledge to the planned development, improvement, and reinforcement of the strategies, structure, and process that lead to organization effectiveness" (p. 1). Definitions offered by recent researchers Jamieson and Worley (2008, p. 99) suggested OD as:

> ...a process of planned intervention(s) utilizing behavioral science principles to change a system and improve its effectiveness, conducted in accordance with values of humanism, participation, choice and development so that the organization and its members learn and develop.

A somewhat more focused definition is published by Huse (1980, p. 23):

> Organization Development is concerned with the deliberate, reasoned, introduction, establishment, reinforcement, and spread of change for the purpose of improving an organization's effectiveness and health. Effectiveness refers to setting and attaining appropriate goals in a changing environment. Health refers to the motivation, utilization, and integration of human resources within the organization.

Thus, OD is a study with human process, techno-structure, human resource, and strategic change. In simple form, OD is the practice of changing people and organizations for a positive growth.

OD Brief History

Organization Development (OD) was awaked around the end of World War II, because people were more comfortable thinking about an individual's needs, values, and culture afterward. In terms of economics, people also thought about changing

their businesses from war-oriented industries (e.g., munitions and hardware) to other enterprises and about improving an organization to be more competitive and effective.

OD's forerunner was believed to be Kurt Lewin's Laboratory Training in the 1940s, and many further developments of OD occurred there. Training groups in National Training Laboratories (NTL) had known sensitivity training. T-groups were small, unstructured groups where the participants learned from their interaction and dynamics as a whole. Experience in NTL led to the establishment of applied behavioral science approaches, including those developed by McGregor and others later (French & Bell, 1984; Cummings & Huse, 1989; Cummings & Worley, 2001).

After Lewin died in 1947, his staff moved to the University of Michigan to join the Survey Research Center as part of the Institute for Social Research, which was headed by Rensis Likert, a pioneer in developing scientific approaches to attitude surveys (Varney, 1967). During the 1950s, Eric Trist and his colleagues, at the Tavistock Institute of Human Relations in London, developed the concept of productivity and Quality-of-Work-Life (QWL). This concept examined both the technical and the human sides of organizations and their interconnections.

Since 1957, OD was known as a management tool and had been utilized in complicated structured when the late Douglas McGregor worked with Union Carbide to apply some of the concepts from laboratory training to a large system (Cummings

& Worley, 2001). OD's early stage was in groups' work settings and eventually progressed to an actual change study. The late 1960s and early 1970s were a period of rapid movement in high technology and human resource efforts that increased with movement into project groups and task forces to deal with the challenge the effective use of new technologies (Nadler, 1984). Starting in the 1980s, the successful experience of Japanese manufacturing explodes a fashion of TQM and process redesign. The following generation of OD extends into community and social change. Organization Development's boundary is not limited to single organization but to groups of different organizations and their environment (Cummings & Worley, 2001, p. 13). Wanner Burke summarized the primary OD theorists according to their perspective, emphases, and application, as seen in Table 1 (1992, p. 53).

Table 1. Summary of Primary OD Theorists According to Their Perspective, Emphases, and Applications

Perspective	Theorist	Emphasis	Application
Individual	Maslow and Herzberg	Individual Needs	Career development, job enrichment
	Vroom and Lawler	Individual expectancies and values	Reward system design, performance appraisal
	Hackman and Oldham	Job satisfaction	Job and work design, job enrichment
	Skinner	Individual performance	Incentive system, reward system design
Group	Lewin	Norms and values	Changing conformity patterns
	Argyris	Interpersonal competence and values	Training and education
	Bion	Group unconscious, psychoanalytic basis	Group behavior diagnosis
System	Likert	Management style and approach	Change to participative management
	Lawrence and Lorsch	Organizational structure	Change contingent on organizational environment
	Levinson	Organization as a family, psychoanalytic basis	Diagnosis of organization according to familial patterns

The word *evolution* is more suited to OD's beginning than the word *birth* (Burke, 1992; 2008) because Organization Development has been a transition process to

individual, group, and system perspectives in management thought, organization, and social change. Tannenbaum and Davis (1969) listed 13 value scales that have characterized the route of OD (Table 2). The early-espoused values and philosophy of OD were influenced from the behavioral sciences.

Friedlander, F. (1998) had consolidated the evolution of OD. It is obviously to recognize the trend for OD change is more global, effective, and strategy oriented. The focus is subject to change from personal value to customer satisfaction (quality product and service) and financial gain (Friedlander, 1998). Performance improvement and quality management were spotted primary focus for implementing organizational development in 1990s. Today's world is "going global"; organizations could be composed of global and virtual teams, which require more emphasis in individual and cultural diversity.

Table 2. Tannenbaum and Davis' 13 Value Scales of OD

Moving away from	Moving toward
A view of man as essentially bad	A view of man as essentially good
Avoidance or negative evaluation of individual	Confirming individuals as human beings
Resisting and fearing individual difference	Seeing individuals as being in process
Resisting and fearing individual difference	Accepting and utilizing individual difference
Utilizing an individual primarily with reference to his/her job description	Viewing an individual as a whole person
Walling off the expression of feelings	Making possible both appropriate expression and effective use of feeling
Marksmanship and game playing	Authentic behavior
The use of status for maintaining power and personal prestige	The use of status for organizationally relevant purposes
Distrusting people	Trusting people
Avoiding facing others with relevant data	Making appropriate confrontation
Avoidance of risk taking	Willingness to risk
A view of process work as being unproductive effort	Seeing process work as being essential to effective task accomplishment
A primary emphasis on competition	A much greater emphasis on collaboration

National Culture

Culture provides a sense of belonging to people. Most management research proposes that the ideal outlook of culture is "a set of ideas shared by members of a group" (Jaeger, 1986). National culture is the collective programming that results from experiences derived from values such as family, government, religion, architecture, and even science (Flynn & Saladin, 2006). National culture changes very gradually

because what is in the minds of people of a nation also becomes crystallized in its organizations. Hofstede (1993) conducted research across forty countries and surveyed over 116,000 employees from multinational organizations to develop a system for national culture. From this data, four principal factors were extracted: *Power Distance, Individualism, Masculinity,* and *Uncertainty Avoidance.*

Hofstede defined Power Distance as "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally" (1980). This dimension relates to a hierarchy in which members with a low power distance expect and accept power relations that are more consultative or democratic. Individualism is contrasted with collectivism. Individualism refers to the degree to which people prefer to act as individuals rather than as members of groups. Masculinity focuses on the scale of "masculine" values such as assertiveness, acquisition of wealth, quality of life, and not caring for others. Uncertainty Avoidance is the extent to which a society feels threatened by uncertainty and tries to avoid it (Hofstede, 1980; Robbins, 2006).

Michael Harris Bond and his collaborators subsequently found a fifth dimension, which was initially called Confucian dynamism, and Hofstede later incorporated this dimension into his framework as Long-Term Orientation. This dimension describes a society's "time horizon" or the importance attached to the future versus the past and present. Long-Term Orientation ranking indicates that the country prescribes to the

values of long-term commitments and respect for tradition. Contrary to Long-Term Orientation, Short-Term Orientation ranking indicates that people expect short-term rewards and have little respect for tradition (Hofstede, 1993; Hofstede & Bond, 1988; Hofstede & Hofstede, 2005).

Although Hofstede (1993) indicated that the unidentified factors contribute more than 50% of evaluation, the dimensions may or may not clarify a situation for individual country (Lu, 2005). However, Hofstede's work on national culture is regularly described as landmark and is widely used as a theoretical framework for guiding cross-cultural comparisons, especially using the original four dimensions. Based on the research concept of this study, Table 3 shows Hofstede's four culture dimension scores for selected countries. Whereas U.S. national culture has high Individualism and Masculinity scores, Taiwanese national culture receives a high score in Power Distance, and Japanese national culture receives high scores in Uncertainty Avoidance and Power Distance.

Table 3. Hofstede's Culture Dimensions Scores for Selected Countries

	Japan	Taiwan	USA
PDI	54	58	40
UAI	92	69	46
IDV	46	17	91
MAS	95	45	62

Total Quality Management (TQM)

Total Quality Management (TQM) has been broadly recognized since the mid-1980s. It combines methods, theories, techniques, and quality strategies for achieving exceptional quality and emphasizes the important role of management (Richardson, 1997). Morgan and Murgatroyd (1997) cited the American Federal Office of Management definition of TQM as "....a total organizational approach for meeting customer needs and expectations that involves all managers and employees in using quantitative methods to improve continuously the organization's processes, products, and services" (p. 7).

Saylor (1996) and Creech (1994) also argued that a TQM program should include every activity, process, product quality mindset, and quality orientation. Quality management program has to allow empowerment at all levels. It is supposed to bring about quality in the way employees are involved, treated, and motivated, and then apply any philosophies relating to total quality management. In Milakovich and Gordon's words, total quality management is "a management approach that encourages organization-wide commitment, teamwork, and better quality of results by providing incentives to increase the success of the whole enterprise" (2001).

TQM was successfully implemented in different areas of organizational performance. Results of TQM implementation showed success in improving an organization's physical performance in terms of financial achievements (Hendricks & Sinfhal, 2001)

and product quality (Agus, 2005) and in terms of invisible forms like customer satisfaction (Choi & Eboch, 1998; Rahman & Bullock, 2005; McAdam & Kelly, 2002), problem solving (Vouzas, 2004; Tenner & DeToro, 1992), and workforce commitment (Rahman & Bullock, 2005).

Evolution of TQM

Total Quality Management (TQM) can be traced back to Frederick W. Taylor's application of scientific management. In the mid-1940s, Dr. W. Edward Deming characterized TQM as remaining competitive in quality and service by a set of transforming principles that quality is not determined by the capabilities of workers but by the system of how work is performed (Rahman, 2004). Corresponding to the agreement of Deming and other organizational studies, the constructions for TQM embrace visionary leadership (Anderson et al., 1994; Waldman, 1994; Rahman, 2004; Soltani, 2005). Juran delineated the concept of TQM as a "trilogy": quality planning, quality control, and quality improvement (Rahman, 2004; Hafeez, et al., 2006).

Crosby (1979) claimed, "Zero defects. Do it right the first time." This prevention-based system emphasized prevention rather than inspection and defined quality as "conformance to requirement." He argued that quality management should be used to prevent the problem. Unlike Crosby, Kaoru Ishikawa countered that "zero defect" activities forced employees to achieve the high standard goal but did not teach them how to do it. He promoted the concept that "the next process is your customer", and

believed that "soft (people)" issues are the key to solving problems and creating success (Ishikawa, 1985).

In the 1980s, manufacturing was flourishing and auto manufacturing was the focal point in statistical management control. The value of quality management was not limited in numbers of performance but in how to utilize the numbers to enhance performance. Thus, ISO and national quality evaluation standard (e.g., the Malcolm Baldrige Award and the European Quality Award) was established. Quality management activities were detailed to whole organizations and whole processes: the "total quality management" was acknowledged. Many organizations utilized TQM as a savior and then challenged the outcome.

Organization is a human system (Pike & Barnes, 1996). Organization should always take "human" issues into consideration while implementing OD interventions. In 1992, Wilkinson (1992) first argued that TQM has both "hard" and "soft" sides. Recently, more scholars suggested TQM could be categorized into two distinct groups: soft TQM and hard TQM (Rahman & Bullock, 2005; Vouzas & Psychogios, 2007; Fotopoulos & Psomas, 2009; Lenka et al., 2010). Rahman (2004) identified that the hard TQM engages more statistical techniques while soft TQM is primarily concerned with "people" and the behavioral aspects of TQM. Vouzas and Psychogios (2007) classified the management tools and techniques as hard aspects of TQM and management concepts and principles as the soft side of TQM. The evolution of quality management is concisely captured in Table 4.

Table 4. Evolution of Quality Management

Decade	Theory	Source
2000s	Human Management Human Value	Soft TQM A. Wilkinson S. Rahman
1980s	Total Quality Management Strategic quality in continuous improvement Vision and culture sharing	ISO, EFQM, Malcolm Baldrige National Quality Award The Toyota Way
1960s	Product Technology Management Quality Assurance in design and Customers' need	J.M. Juran P.B. Crosby TPS
1940s	Statistic Management Quality Control in process and performance	W. E. Deming
Pre-1940s	Scientific Management Inspection-based system	Fredrick W. Tayler Henry Ford

TQM is not only a technical system but also a philosophy and a principle of an organization. TQM's unqualified implementation should involve employees or the human side of organizational efforts. It is related to knowledge, empowerment, teamwork, and feedback for all organization employees (Yaeger, Head, & Sorensen, 2006). Increasingly more literature addresses the future of TQM and explores the importance of soft TQM; however, few researchers include empirical study in the statement of soft TQM and how it relates to organizational performance.

Elements of Soft TQM

With Deming, Juran, Crosby, and Ishikawa's theoretical basis, Saraph et al. (1989) labeled eight factors of TQM, and then Powell (1995) defined twelve key elements of TQM based on literature reviews by the quality gurus as well as the Malcolm Baldrige National Quality Award (MBNQA) framework. Furthermore, Black and Porter's (1996) ten factors of TQM are theoretically based on the assessment items of MBNQA. Rahman (2004, p. 414) consolidated the mentioned scholars and his own description of TQM and divided the elements into soft and hard aspects, as shown in Table 5.

Soft TQM is also known as people-related TQM or institutional TQM (Rahman, 2004; Zbaracki, 1998). There is no uniform definition for soft TQM today. Although some scholars began to discuss the significance of soft TQM, there is little agreement as to its primary construct and statement.

Table 5. The Elements of Soft TQM and Hard TQM

Soft TQM	Hard TQM
• Top management leadership (Saraph et al., 1989; Flynn et al., 1994; Powell, 1995; Ahire et al., 1999; Rahman, 2001)	• Use of advanced manufacturing systems (Powell, 1955; Dow et al., 1999)
• Employee involvement (Saraph et al., 1989; Ahire et al., 1996; Black & Porter, 1996; Dow et al., 1999, Rahman, 2001)	• Usage of JIT principle (Dow et al., 1999)
• Employee empowerment (Powell, 1995; Ahire et al., 1996; Dow et al., 1999; Rahman, 2001)	• Process management (Saraph et al., 1989; Flynn et al., 1994; Powell, 1995)
• Employee training (Black & Porter, 1995; Ahire et al., 1996; Dow et al., 1999; Rahman, 2001)	• Quality data and reporting (Saraph et al., 1989)
• Teamwork and communication (Black & Porter, 1995; Dow et al., 1999)	• Design quality management (Saraph et al., 1989; Flynn et al., 1994; Ahire et al., 1999; Rahman, 2001)
• Strategic quality management (Ahire et al., 1996;Black & Porter, 1995; Dow et al., 1999)	• SPC usage (Powell, 1995; Ahire et al., 1996)
• Customer focus (Powell, 1995; Ahire et al., 1996; Black & Porter, 1996; Dow et al., 1999, Rahman, 2001)	• Benchmarking (Powell, 1995; Ahire et al., 1996; Dow et al., 1999)
	• Zero defect mentality (Powell, 1995)

Wilkinson (1992) highlighted the soft quality factors:

- Senior executive commitment and involvement, actively demonstrated.
- Comprehensive policy development and effective deployment of goals.

- Entire workforce commitment to quality goals of the organization.
- Supervisors', unit heads', and divisional managers' assumption of active new roles.
- Empowerment.
- Effective communication.
- Teamwork.
- System for recognition and appreciation of quality efforts.
- Training and education.

Oakland and Oakland (2001) further described the people-related TQM covered teamwork, reward and recognition, customer focus, organizational trust, extensive training, high level of communication, management commitment at all levels, employee involvement, empowerment, and organizational culture. To more fully understand soft TQM, the researcher reviewed related TQM literature and suggested a list of six key constructs of soft TQM: Leadership, Employee Fulfillment, Employee Involvement, Training and Education, Strategic Quality Policy, and Customer Focus. Detailed explanations of these six theoretical constructs are described in the following section.

Leadership

Successful TQM programs typically require resources that are decided by the executive team; the vision and direction for change definitely are the management's responsibility (Buch & Rivers, 2002; Everetee, 2002).

The European Quality Award and the Malcolm Baldrige Quality Award identified the role of top management leadership in creating goals, values, and a continuously improving environment for business success. One critical responsibility of top management is to pursue quality improvements and to empower employees (EFQM, 1994; MBNQA, 2004). Top management ought to emphasize quality rather than yields. Management's commitment and empowerment for employees are the cornerstones of the TQM process. Gatchalian (1997) argued that empowered employees could exercise better judgment and had a greater sense of responsibility in their daily work tasks.

As shown on Tables 6 and 7, scholars and world's famous quality awards mention the construct of "management leadership" (see Table 7). Thus, this Researcher proposes that leadership is the top and most essential construct for soft TQM. Table 7 exhibits the construct comparison of selected national quality awards.

Table 6. Construct Comparison of Selected National Quality Awards

Malcolm Baldrige Award	European Quality Award	Japan Quality Award	Taiwan Quality Award
Leadership	Leadership	Management vision and leadership	Guiding and operating principle
Strategic planning	Policy and strategy	Strategic planning and development	Innovation and strategic management
Customer and market focus	Partnership and resources	Understanding customer and market and action taken	Customers and market expansion
Information and analysis		Information sharing and utilization	Information strategy, practice and management
Human resources focus	People management	Human resources development	Human resource and knowledge management
Process management	Process		Operation flow (process) management
Business results	People results Customer results Society results Key performance results	Results of enterprise activities Customer satisfaction	Operation outcome

Employee Fulfillment

Ishikawa described the "Joy of climbing a mountain just because it is there" (Ishikawa, 1985, p. 27). Employee fulfillment depends upon how an organization continuously satisfies employee's needs, including job satisfaction, job commitment,

and pride of workmanship (Grandzol & Gershon, 1998; Anderson, et al., 1994). Kerr (1996) was an expert of environment, ethics, and quality for Northern Telecom Limited, which operates in a highly competitive and constantly changing industry in Canada. According to Kerr's study in Northern Telecom, he argued that employee fulfillment, commitment, and engagement are the essential company requirements.

Besides an employee's commitment to work, appropriate rewards and recognitions (e.g., salary, bonuses, and promotions) could also increase employee satisfaction. Crosby (1989) considered recognition to be one of the most important steps in the quality improvement process. Numerous scholars mentioned that internal customers (i.e., employees) drive the total quality management movement (French et al., 1994, p. 285; Oakland, 2000). It is believed that once employees recognize the values of their work, they perform better. That contention highlights the importance of employee fulfillment in TQM process.

Employee Involvement

Employee involvement is a participative process through which employees increase their commitment to the organization's success (Robbins, 2006). Participation is crucial in encouraging an employee's action on quality management, since participation leads to changes in working attitude and behavior (Juran & Gryna, 1993). Involvement in TQM implies an invitation to every organization member to participate in the quality improvement process (Deming, 1986, p. 85). The underlying logic of this construct is the idea that involving all workers would influence

employees' behavior, increasing autonomy and then control over their work lives. Thus, employees become more motivated, more committed to the organization, more productive, and more satisfied with their jobs.

Training and Education

Training nurses the organization's ability to develop its skills, abilities, and knowledge (Noe, 2008; Grandzol & Gershon, 1998). According to Dale (1999), training is "a common language throughout the business." Quality management framework may not execute effectively because employees have not received formal, systematic training in quality management (Ahire et al., 1996). The training concept of TQM ought to cover not only shop floor but also management level. The management team needs to understand the process and training in the spirit of TQM, and to break it down for all employees within the organization. Training should not be only a one-time job but also a continuous self-improvement education. Employees should be regarded as valuable, long-term resources worthy of receiving education and training throughout their careers (Abdullah, et al., 2008; Zang, 1999). Deming (1986) stated that education and training plays a significant role in quality management activities. Ishikawa (1985) and Rao et al. (1999) endorsed this position as well. The importance of training and education in TQM implementation is highlighted.

Strategic Quality Policy

Strategic quality management is the "process of establishing long-range quality goals and defining the approach to meeting those goals" (Juran & Gryna, 1993).

Longenecker and Scazzero (1996) cited Deming's, Juran's, and Crosby's notions that organizations demand long-term perspective to move toward quality improvement. Moreover, Rao et al. (1999) contended that strategic quality planning must integrate quality and customer satisfaction into an operational map. Quality is a *process* not a *program*; programs will end, but processes will continue. Thus, the strategic quality control policy follows a long-term objective and seeks continuous improvement pursuing the organizational goals such as improving its processes, products, and service.

Customer Focus

Ishikawa (1985) claimed that knowing customers' need and providing what they want are essential to improving quality (p. 43). Total quality management and organizational performance has a customer-driven focus (Anderson et al., 1994; Hackman, 1995; Zairi, 2000; Vouzas & Psychogios, 2007). Crosby (1979) advocated quality as "conformance to requirements" and promoted a definition of quality as "meeting the customers' requirements the first time and every time." To realize customer satisfaction, everyone within the organization should consider continuous improvement as something normal (Rampersad, 2001). Thus, collecting customers' complaints and opinions and benchmarking are obligatory tasks needed to improve customer satisfaction. In addition, scholars like Powell (1995), Ahire et al. (1996), Dow et al. (1999), and Rahman (2001) considered customer focus to be one of the factors of TQM, as did the Malcolm Baldrige Award, Japan, and the Taiwan Nation Quality Award. In a quantitative way, quality can rely on customer satisfaction.

National Culture vs. OD and TQM

OD vs. National Culture

Jaeger (1986) argued culture and value diversities were constraints in the use of OD intervention; moreover, he adopted the Hofstede cultural framework to analyze the relationship between OD and national cultural values. His study demonstrated that using a single general value framework to examine OD application cannot produce conclusive results. Head and Sorensen's (1993) research pointed out that there seems to be a linkage between a country's value and the effective use of specific OD interventions.

In the Hofstede culture dimension, power distance definitely has a direct impact on OD intervention. An organization with high power distance means that of its members across hierarchical levels, top management has the lofty power in decision making. In some situations, it would be difficult to employ intervention successfully when management level is less decisive (Flynn & Saldin, 2006). Organization members with high uncertainty avoidance would have potential effects in the intervention process. They hesitate to take responsibility and tend to be reluctant in any intervention activity (Wheeler, 2001; Jaeger, 1986). Individualism, which is contrasted with collectivism, describes the degree to which the people prefer to act as individuals rather than as members of groups. According to Edgar Schein (1980), "An organization is the planned coordination of the activities of number of people for the achievement" (p. 15). Thus, a better OD tends to be more collectivism. Lastly,

employees with high masculinity care more about themselves and would preclude OD implementation. Conversely, employees in feminine roles are assumed willing to share feelings; it should be noted that OD is not a single but a collection of designs to help organizations and is not entirely accepted by a country.

TQM and National Culture

Quality management implantation is popular in these decades. A number of scholars in management analyze what quality management is and should be in different frameworks. While discussing total quality management, the majority of papers refer to Malcolm Baldrige or some other national quality award. The Malcolm Baldrige National Quality Award criteria are frequently assumed to be one way to codify TQM practices. Reviews of current literature suggest that TQM is a set of philosophy-like principles and the national quality award is a set of guidelines used to evaluate an organization's performance.

In their study, Flynn and Saladin (2006) found that some Baldrige criteria are consistent with Hofstede's cultural dimensions. They then examined the relationship between Baldrige constructs and national cultural dimensions. The results show that with the Baldrige constructs work success has higher levels of power distance, uncertainty avoidance, masculinity, and collectivism (Flynn & Saladin, 2006). Table 2.7 shows the national culture dimensions and significant correlations with quality management in a selected country. Japanese management style is well known to be more hierarchical and authoritative than organizations in Western countries (Magaña-

Campos & Aspinwall, 2003, p. 434). Flynn and Saladin's (2006) research supports the idea that Japanese national culture executes quality management programs well and suggests why many quality management approaches have been modeled successfully in Japan.

Table 7. Significance with National Culture Dimensions and Quality Management in Selected Country

	Japan	Taiwan	USA	Quality Management
PDI	High	High	Low	Positive
UAI	High	Medium	Low	Positive
IDV	Medium	Low	High	Negative
MAS	High	Medium	High	Positive

Organization Sustainability

The concept of sustainability has become progressively important for organizations in the twenty-first century (Presley et al., 2007; Orlitzky et al., 2003; McMullen, 2001). One school suggested sustainability could be divided into a so-called "triple bottom line," which comprises economic, social, and environmental components. This argument emphasizes that a company should have liability to make profit and grow the business, moreover, to demonstrate socially responsible behavior. Recently, more research focused on ecological sustainability, so much that "Green Management" became the theme of the 2009 Academy of Management. Thompson (2010) suggested that the core concept for a company is to achieve sustainable competitive

advantage when an attractive number of buyers prefer its products or services over the offering of competitors.

Dovers and Handmer (1992) defined sustainability as "the ability of human, natural or a mixed system to withstand or adapt to endogenous or exogenous change indefinitely" (p. 275). For organizations, Zairi and Liburd (2001) defined sustainability as "the ability of an organization to adapt to change in the business environment to capture contemporary best practice methods and to achieve and maintain superior competitive performance" (cited in Zairi, 2002, p. 1162). According to Epstein and Wisner (2001), both internal and external barricades (e.g., staff and top management attitudes, corporate cultures, technological availability, information, and regulatory constraints) have to be conquered in organizational sustainability-oriented changes. Therefore, the ability to adopt change and to maintain competitive advantage is considered to be an essential characteristic for organization sustainability.

Yaeger and Yeh's model of Organization Sustainability

"Health is an intrinsic component" (Gakidou et al., 2000, p. 42). Yaeger and Yeh (2011) argued that no matter what challenges organizations suffered, employees are the foundation and the trigger to drive changes. Thus, they proposed a model in a practitioner point of view for organization sustainability in which organization sustainability comprises organizational identification, commitment of employees, and employability (Figure 3).

Figure 3. Yaeger and Yeh's Model of Organization Sustainability

Organization Identification

"Identification is the essence of the organization" (Margolis & Hansen, 2002; Albert & Whetten, 1985). Organization identification is composed of membership, loyalty, and similarity within employees and organizations (Cheney, 1983; 1982). Gautam et al. (2004) argued that "organization identification is a specific form of social identification" where it is an attitude of people (i.e., employees) to express their concerns to society (i.e., organization). Organizational members with identification tend to share organizational values and support in achieving goals. According to

Margolis and Hansen (2002, p. 295), endurance of organizational identity is significant to organization survival.

Employee Commitment

"No change can occur without willing and committed followers" (Bennis, 2000, p. 117). Employee commitment is the psychological bonding between employees and organizations. It is related to employees' belonging and contribution to organizations (Meyer et al., 2002; McCann et al., 2006). Mowday et al. (1979) described one major characteristic of commitment is "a strong desire to maintain membership in the organization" (p. 226). Banni and Reisel (1993) suggested that commitment is a belief of the employee to follow an organization's values and then to achieve an organization's goal. Herscovitch and Meyer (2002) further supported employee commitment and organization change and indicated that forms of commitment positively relate to organizational change.

Employability

According to the Confederation of British Industry (CBI), "Employability is the possession by an individual of the qualities and competencies required to meet the changing needs of employers and customers and thereby helping to realize his or her aspiration and potential in work" (CBI, 1999). Enhancing employability during work is beneficial for both individual and organizational outcomes (Rothwell & Arnold, 2007; Fugate et al., 2004). In a current study, employability is defined as "the continuous fulfilling, acquiring or creating of work through the optimal use of competencies" (Van der Heijde & Van der Heijden, 2006). Thus, employability is a

competency in the workforce for one to perform promptly and accurately. Highly employable workers are indispensable, which means they are absolutely essential for organizations to maintain a sustainable competitive advantage, which cannot be easily replicated.

Summary

Today's business environment is challenged by uncertainty and instability. To survive in this turbulent time, organizations require more innovative approaches to achieve competitive performance. The history of OD is introduced for more understanding of the values and trends of organizations. Total quality management techniques are used as intervention for optimal organization performance; however, TQM has to transform into more appropriate forms by emphasizing the soft elements of TQM. Moreover, the researcher brings OD and TQM into the national cultural dimension to discuss their interaction by literature review. Finally, the concept of organization sustainability is discussed. Yaeger and Yeh's organization sustainability model is introduced in this chapter.

The following chapter will describe the research framework and the methodology used in this research.

Chapter 3: Methods

TQM has been proven effective in improving visible and invisible performance such as financial achievements, product quality, customer satisfaction, problem solving, and workforce commitment. However, increasing numbers of studies show that a certain percentage of quality management programs fail, and some scholars suggest that the failure is due to deficiencies in soft elements such as management's leadership, employee participation, and learning for change. In addition, some scholars have concluded that quality management activities are successful in specific national cultural dimensions. After reviewing related literatures, the researcher determined that the constructs of soft TQM incorporate the following: Leadership, Employee Fulfillment, Employee Involvement, Training and Education, Strategic Quality Policy, and Customer Focus; furthermore, the researcher proposed statements for each construct in this study.

This study aims to identify the statements of soft TQM's construct and to examine the relationship between soft TQM and organization sustainability under different national cultural backgrounds. Based on the purpose, this chapter describes the research framework, research questions and rationale, methodology, and chapter summary.

Research Framework

The objective of this research was to investigate how soft TQM practice affects an organization's performance under different cultural settings (in Japan, Taiwan, and the United States). Therefore, the realization research concept was covered with culture and human practice contributed by organization theory and organization development dimensions. Organization culture is derived from its association with external context and internal members and is the hidden rule of values and beliefs that drive an organization's work. The human process is correlated to interpersonal relations and group dynamics (Cummings & Worley, 2001).

To connect culture to management and afterward to OD, an empirical model of culture developed by Hofstede is referenced in this study. Hofstede carried out an experimental analysis on national culture, and his work is widely used as a theoretical framework for guiding cross-cultural comparisons. Figures 4 and 5 illustrate the research framework for this study. Figure 4 depicts soft TQM's impact on an organization's performance under different national cultures. Figure 5 represents the model for individual elements of soft TQM's influence on organization sustainability.

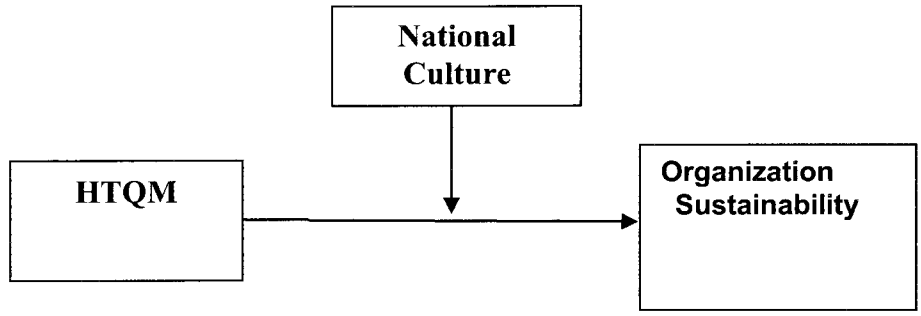

Figure 4. Research Framework: Effect of Soft TQM on Organization Sustainability

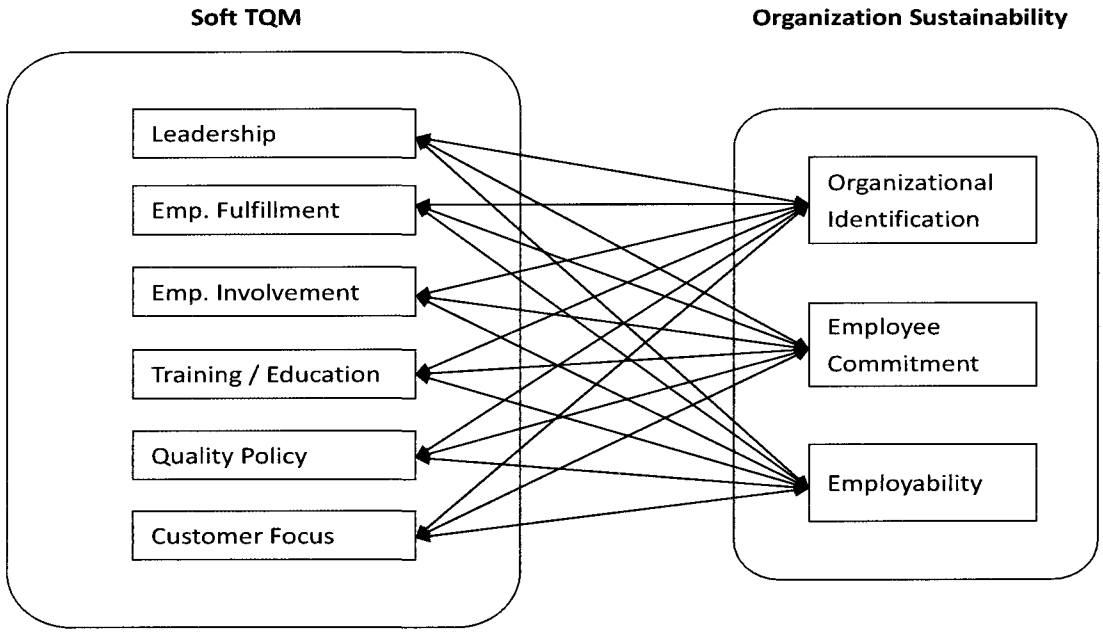

Figure 5. Research Framework: Effect of Soft TQM Constructs on Organization Sustainability Constructs

Research Question

Based on the purpose of this study, four main research questions were investigated. The questions and supporting rationale are listed below.

Question One: What are the statements for soft TQM's elements?

Rationale: According to literature, there is no uniform for soft TQM. Constructs for soft TQM are subject to change by different schools. Although some scholars discussed the importance of soft TQM, the agreement on primary constructs was rare, and statements of soft TQM are fewer and fragmented. When practicing TQM, organizations spontaneously emphasize the so-call hard part of TQM (e.g., Six Sigma, JIT, and SPC) because it has existing rules to follow. Increasing evidence supports the idea that TQM programs failed because of insufficient soft factors of TQM (Morrison & Rahim, 1993; Beer, 2003; Rahman, 2004). An organization is a human system (Pike & Barnes, 1996), and TQM's implantation should involve the human side of organizational efforts. Thus, defining the statements for soft TQM elements is significant for organizations.

Question Two: Is there a difference in soft TQM practices under Taiwanese, Japanese, and American national cultural backgrounds?

Rationale: Today's world is "going global." According to Yaeger (2001), the nature and content of organization development has changed and become more strategic and

global. OD and TQM are American management techniques now utilized overseas. Quality management practices from Japan are especially well known. Flynn and Saladin (2006) utilized Hofstede's four dimensions of national culture to examine the relationship between theoretical constructs underlying the Baldrige award, which many countries have adopted as a national quality management honor, and national culture. Flynn and Saladin's finding indicated that national culture plays a strong role in quality management execution. However, how is the human (soft) side of TQM executed? This study will examine the results in three different national cultures: Taiwan, the United States, and Japan. Taiwan and the United States represent typical Eastern and Western cultures separately, and Japan could be the benchmark country in this study.

Question Three: What is the correlation, if any, between soft TQM and organization sustainability (i.e., organizational identification, commitment of employees, and employability)?

Rationale: Organization sustainability is considered to be one of the imperative subjects in the twenty-first century. Established arguments of organization sustainability primarily focus on ecological sustainability and competitive products and services (Robins, 2006; Thompson et al., 2010). However, the ecological issues are too broad for organizations to tackle, especially in today's challenging financial environment. Also, the advantages an organization gains are quickly copied by competitors (Galbraith et al., 2002; Pascale et al., 1997; Shaw & Schneier, 1993).

Thus, this study employs Yaeger and Yeh's (2011) model, which concentrates on the social pillar of sustainability with one's organizational identity, employability, and commitment to belonging to an organization, to examine the relationships among the elements of soft TQM and organization sustainability.

Question Four: What is the correlation, if any, between soft TQM and organizational profitability and competitiveness?

Rationale: An organization seeks to possess new techniques to make a profit and to maintain a competitive advantage at all times. Although the concept of TQM is not new, the soft part of TQM does not receive as serious scrutiny as the hard part of TQM. Therefore, finding the relationship among soft TQM's constructs and organizational profitability and competitiveness is important to organizations as well.

Methodology

Procedure

A procedure of this study was divided into three stages: preliminary consideration, empirical investigation, and data analysis and interpretation. Figure 6 illustrates the research flow of this study. The preliminary consideration stage included identification of the research purpose, a literature review, and a research design (as in chapters 1 and 2). The second stage included an empirical investigation, which comprised the questionnaire and sampling design (as in chapter 3), execution of the on-line survey, and data collection. Next was the data analysis and interpretation stage (as in chapters 4 and 5).

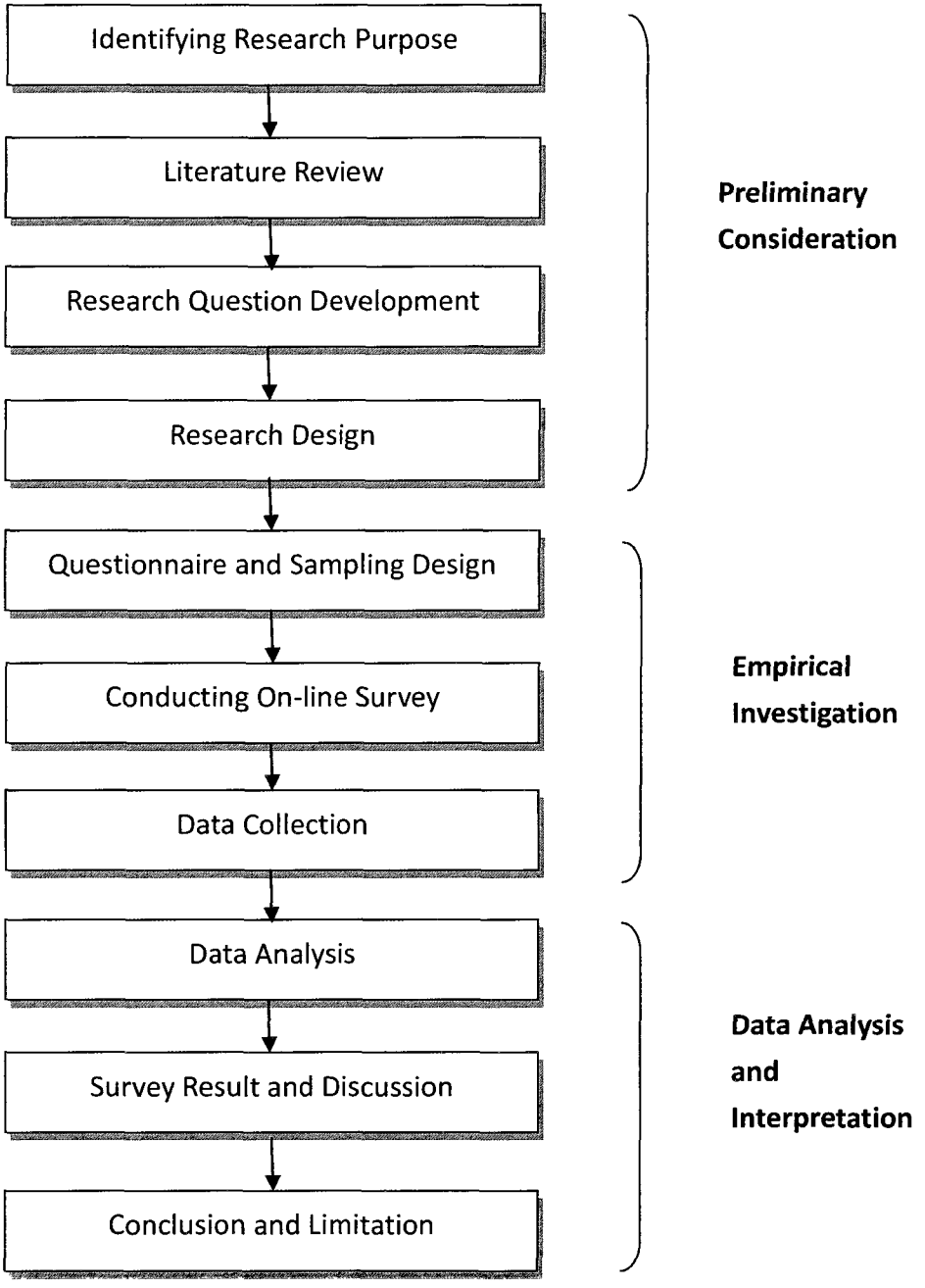

Figure 6. Research Process of This Study

Population and Samples

This study investigated soft TQM execution in different cultural settings (Japan, Taiwan, and the United States). A research assumption drawn from accounting firms was that the national culture of origin affects the organizational culture (Pratt et al., 1993; Soeters & Schreuder, 1988). In turn, American and Japanese national culture may impact their affiliation's organizational culture in other countries (i.e., Taiwan). Thus, the samples were contributed by full-time employees who work in local Taiwanese companies, American companies, and Japanese private organizations' Taiwanese branches.

Instrumentation

A self-reported questionnaire was developed to test relationships among all construct variables. The questionnaire included three main sections: soft TQM, organization sustainability, and participants' background questions. The language issue was considered in collecting data; therefore, questionnaires in English, Chinese, and Japanese are included as Appendix C, Appendix D, and Appendix E, respectively. To better address the "safe scoring" of some Asian respondents, instead of a typical five- or seven-point scale that allowed middle scoring by respondents, a six-point Likert scheme was utilized in the main questionnaire of this study.

Soft TQM

A comprehensive review related literatures allowed the identification of six constructs for soft TQM (i.e., leadership, employee fulfillment, employee involvement, training/education, strategic quality policy, and customer focus). For each construct,

six to eight questions or statements were included to explain and evaluate soft TQM execution. Although no one had conducted a soft TQM survey before, concepts for the soft aspects of TQM were discussed in the literature. The ideas for survey statements raised in this questionnaire could be traced back to former researchers (e.g., Adrian Wilkinson, John C. Anderson, S. Subba Rao, John R. Grandzol and Mark Gershon, and Shams-UR Rahman). Because the statements of the soft TQM constructs had not been examined, some of the statements were removed after statistical testing. Constructs and statements are listed below.

Leadership

This set of statements is about "Leadership" in organization. Leadership is the ability of management to create goals, to establish values, to empower employees, and to pursue quality improvement. Leadership provides a long-term vision for the whole organization, driven by changing customer requirements.

1. Top management shares similar beliefs about the future direction of this company.
2. Top management pursues long-term business success.
3. Top management anticipates change and makes plans to accommodate it.
4. Top management actively participates in quality and improvement process activities.
5. Top management focuses on quality rather than yields.
6. Top management empowers employees to take necessary action on their own.
7. Employees have the opportunity to share in and are encouraged to help the organization implement change.

8. Managers and supervisors understand how to motivate employees and encourage them to perform at their highest levels.

Employee Fulfillment

This set of statements is about "Employee Fulfillment" in organizations. Employee Fulfillment considers how an organization continuously satisfies employees' needs, including job satisfaction, job commitment, and pride of workmanship.

1. I like my job because I'm doing what I want to do.
2. Employees in this company are dedicated to their jobs.
3. Our company improves working conditions in order to recognize employees' effort.
4. Our company has a salary promotion scheme for encouraging employee participation in quality improvement.
5. Position promotions are based on work quality in our company.
6. Employees' rewards and penalties are clear.

Employee Involvement

This set of statements is about "Employee Involvement" in an organization. Employee Involvement is a participative process that employs the input of employees to increase their commitment to the organization's success.

1. Employees have the opportunity to suggest changes or modifications to existing processes.
2. Employees are actively involved in improving products, services, and processes.
3. Most employees' suggestions are implemented after an evaluation.

4. Employees are very committed to the success of our company.
5. Employees are held responsible for the output of their process.
6. Employees are encouraged to fix problems they find.
7. Our company has cross-functional teams.

Training and Education

This set of statements is about "Training and Education" in organizations. Training and Education is a language throughout an organization. It nurses organizational capability in enhancing its skill, abilities, and knowledge.

1. Managers and supervisors ensure that all employees receive training that helps them understand how and why the organization does what it does.
2. Employees in this organization understand the basic processes used to create our products/services.
3. Training in specific work skills (technical and vocational) is given to employees throughout the company.
4. Hourly employees in our company can receive appropriate training.
5. Employees are encouraged to accept education and training in our company.
6. Resources are available for employee education and training in our company.
7. Top management has established an environment that encourages continuous education.
8. Employees are regarded as valuable, long-term resources worthy of receiving education and training throughout their careers.

Strategic Quality Policy

This set of statements is about "Strategic Quality Policy" in organizations. Strategic quality management is the process of establishing long-range quality goals and defining continuous improvements to meet organizational goals such as improving processes, products, and service.

1. Our company has a clear long-term vision statement.
2. Our company has an effective quality improvement plan.
3. Quality goals and policy are as well communicated to the employees within the company.
4. The processes for designing new products/services in this organization ensure quality.
5. Employees involved in different processes know how to use statistical controlling methods to evaluate their processes.
6. In our organization, numerical quotas are not the only, nor the most important, measure of an employee's performance.
7. Our company has a career roadmap for employees.
8. Our company encourages continual study and improvement of all its products, services, and processes.

Customer Focus

This set of statements is about "Customer Focus" in organizations. Customer focus for organizations is to continuously discover customers' needs and provide what they want.

1. Our company has been customer focused for a long time, and customer satisfaction is considered in our company's strategic plan.
2. Managers and supervisors encourage activities that improve customer satisfaction.
3. Satisfying our customers and meeting their expectations are the most important things we do.
4. Our company conducts customer satisfaction surveys to collect complaints and opinions from customers.
5. Quality-related customer complaints are treated as a top priority.
6. Our company always conducts market research in order to collect information for improving our products

Organization Sustainability

The survey instruments employed for organization identification, employee commitment, and employability are mainly extracted from Cheney's (1982) Organizational Identification Questionnaire (OIQ), Porter and Smith's (1970) Organizational Commitment Questionnaire (OCQ), and Van der Heijden's (2000) measurement instrument of professional expertise, respectively. Selected constructs and statements are listed below.

Organizational Identification

Cheney's Organizational Identification Questionnaire was the first one that interpreted organizational identification concepts in a social identity approach that had applied for decades. Organization identification is composed of membership, loyalty, and similarity within employees and organizations.

1. I am proud to be an employee of my current company.
2. I talk up my company to my friends as a great company to work for.
3. I have warm feelings toward my company as a place to work.
4. I feel that my company cares about me.
5. I find that my values and the values of my company are very similar.
6. I really care about the fate of my company.

Employee Commitment

The root of affective oriented organizational commitment could be traced to Porter et al. Employee Commitment is related to employees' belonging and contributions to organizations. It is a belief of an employee to follow an organization's values and then to achieve an organization's goal.

1. I would be very happy to spend the rest of my career with this company.
2. I do feel a strong sense of "belonging" to my company.
3. Right now, staying with my company is a matter of necessity as much as desire.
4. One of the few negative consequences of leaving this company would be the scarcity of available alternatives.
5. I do feel an obligation to remain with my current employer.
6. Even if it were to my advantage, I do not feel it would be right to leave my company now.

Employability

Employability is a competency in the workforce for one to perform promptly and accurately. Therefore, an instrument for professional expertise by B. I. J. M. Van der Heijden is employed for measuring employability.

1. During the past year, I was, in general, competent to perform my work accurately and with few mistakes.
2. During the past year, I was, in general, competent to make prompt decisions with respect to my approach to work.
3. I consider myself competent to provide information on my work in a way that is comprehensible.
4. During the past year, I was, in general, competent to carry out my work independently.
5. I consider myself competent to be of practical assistance to colleagues with questions about the approach to work.
6. I consider myself competent to weigh the "pros" and "cons" of particular decisions on working methods, materials, and techniques in my job domain.

Background Question

Some demographic questions for participants are included to determine information such as job function, position, service year, company scope, and industry belonging. Organizational performance would be a concern in this study as well. In organizations, sustainability is not simply a function of the time of an organization's life, but, more importantly, it is the ability to support its competitiveness. Since this

global financial crisis demonstrated its power in 2007, it continues to affect global financial systems. Therefore, companies who continued to make a profit in three consecutive years (from 2007 to 2009) can be presupposed to have the ability to remain sustainably competitive. Questions listed in background section follow.

1. What is your job function?
2. What is your position in the organization?
3. How long have you been employed by this organization?
4. How many employees work for your company?
5. As far as you know, did the company you work for make a profit in each of the past three years?
6. Do you think the company you work for has a sustained competitive advantage in the industry?
7. The company you work for belongs to what industry?

Data Collection

In this study, an electronic survey was utilized to collect data from May to August, 2010. Multiple invitations (E-mail and physical) were mailed to organizations in the selected national culture, and a reminder was sent after one month to increase the response rate. In addition, an advertisement was posted on the Facebook Internet community to recruit more respondents.

Before each survey starts, an introduction and agreement page with "I agree" box was shown on website to inform the interviewee to confirm that this survey was

anonymous and that he or she would agree voluntarily to participate in this study. After the interviewee clicks the "I agree" box, the webpage displays the main questionnaire, from the beginning to the end.

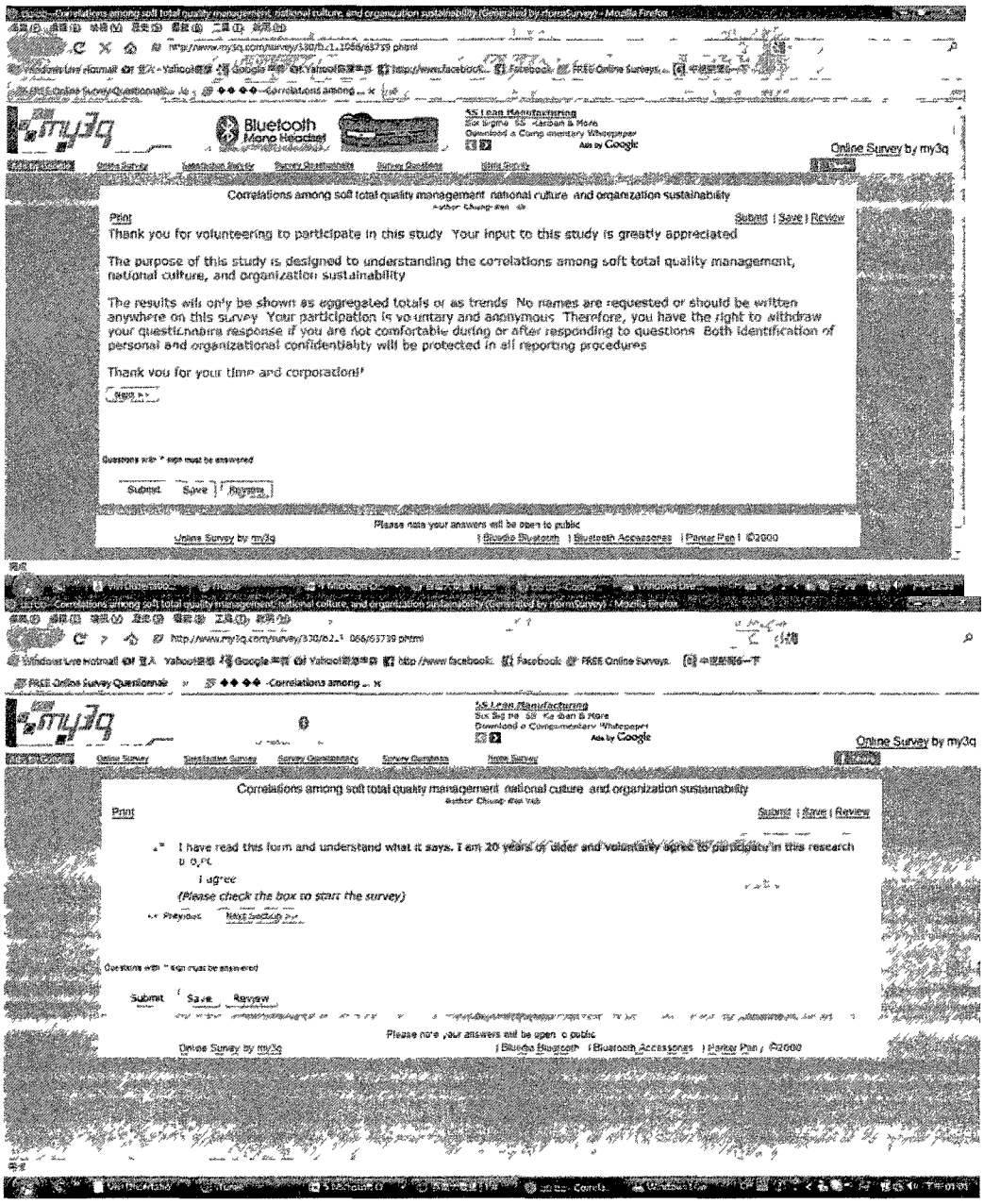

Figure 7. Questionnaire Website—Letter/Agreement

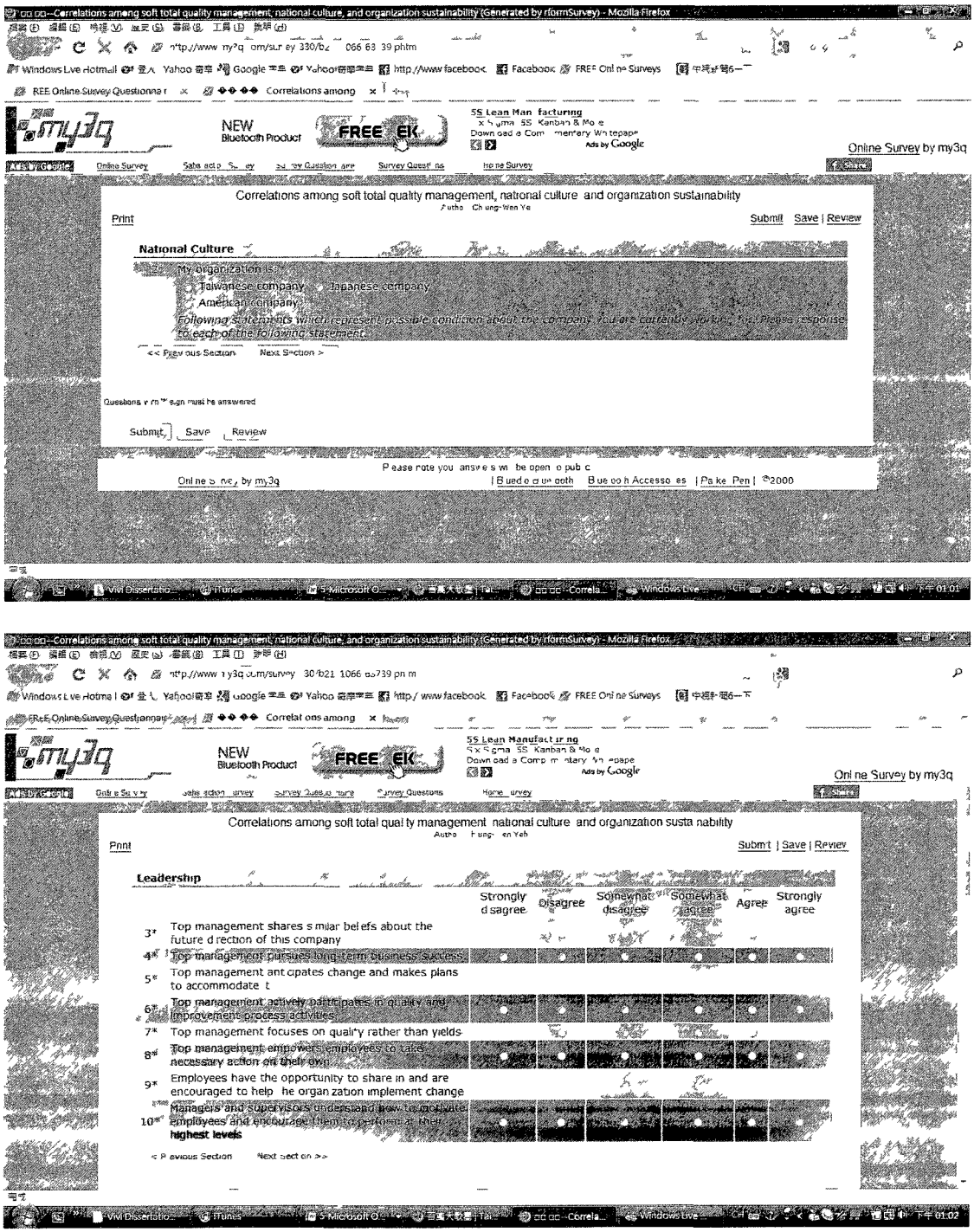

Figure 8. Questionnaire Website—Questions

All of the survey data was automatically saved on a network database, and only the researcher had the password to access the survey instrument and data.

Data Analysis

To achieve the purpose of this research, the Statistical Package for the Social Sciences (SPSS) computer program was employed. The following statistics functions were used for data analysis:

Factor Analysis and Reliability Test

Factor analysis was used to check construct validity, assessing whether the construct indicators explain the definition of an abstract variable appropriately and measure the concepts being studied accurately (Hair et al., 1992). Reliability analysis assessed the degree to which multiple indicators share in the measurement of the construct, which is represented by Cronbach's alpha (Hair et al., 1992; Cronbach, 1951). In this study, factor analysis and reliability tests were used to examine the validity and reliability of proposed statements of each construct, especially for soft TQM.

Descriptive Statistics Analysis

Salkind (2007) indicated that descriptive statistics are "used to organize and describe the characteristic of collection of data" (p. 8). Descriptive statistics analysis illustrates the surveyed variables in mean and frequency distributions. In this study, descriptive statistics provided a general analysis for constructs, statements, and demographic questions. The data was then divided by different national cultures for analysis.

Correlation Coefficients

"A correlation coefficient is a numerical index that reflects the relationship between two variables" (Salkind, 2007, p. 74). A correlation coefficient explains the strength among variables. In this study, bivariate correlation analysis was utilized to examine the relationship among constructs of soft TQM, organization sustainability, and organizational profitability and competitiveness.

One-Way ANOVA

ANOVA is a variance test used to examine the difference between the means of two or more independent variables (Salkind, 2007). Because one of the main purposes of this study was to evaluate the execution of soft TQM in American, Japanese, and Taiwanese organizational culture, one-way ANOVA was employed to test the difference in these three groups.

Summary

This chapter begins with a research framework that provides the overall structure of this study. The methodology section includes the research process, population and sampling, instrumentation, data collection, and data analysis. Samples were contributed from full-time employees of American, Japanese, and Taiwanese profit organizations. The survey questionnaire for soft TQM was created so that factor analysis could be used to examine the validity of the statements of soft TQM. The questionnaires for organization sustainability constructs (organization identification, employee commitment, and employability) were excerpted from Cheney's (1982), Porter and Smith's (1970), and Van der Heijden's (2000) measurement instruments.

An electronic survey was used to collect data, and data analyses involved multiple SPSS statistic functions. Research results and interpretation of the findings are presented in Chapters 4 and 5, respectively.

Chapter 4: Results

This quantitative research was conducted in Taiwan from May to August, 2010. Data was collected from Japan, Taiwan, and a U.S.-affiliated company in Taiwan. This research questionnaire included three parts: soft TQM, organization sustainability, and participants' background questions. Organizational profitability and competitiveness were considered as well. To better address tendency of some Asian respondents, instead of a typical five- or seven-point scale that allowed middle scoring by respondents, a six-point Likert scheme was used for the main questionnaire (1 for strongly disagree, 2 for disagree, 3 for somewhat disagree, 4 for somewhat agree, 5 for agree, and 6 for strongly agree).

In this chapter, multiple Statistical Package for the Social Sciences (SPSS) computer program functions, such as descriptive statistics, frequency, reliability, factor loading, bivariate correlation, and ANOVA, were employed to analyze survey data and to present survey results.

Empirical Assessment

Profile of Participants

The profile included participants' job function, position, time on the job, organizational nationality, industry, and scope (see Table 8). A total of 207 volunteers participated in this survey, with a generally even sampling from all three countries:

34% of the samples originated from the Taiwanese company, 30.9% from the Japanese company, and 34.4% from the American company.

Table 8. Profile of Sample

Profile	Frequency (N=207)	
	n	%
Organization		
Taiwanese company	72	34.8%
Japanese company	64	30.9%
U.S. company	71	34.4%
Job Function		
Operation	46	22.2%
Sales and Service	95	45.9%
Financial	21	10.1%
Administration	32	15.1%
R&D	13	6.3%
Position		
Executive/Senior manager	28	13.5%
Manager (2nd level or above)	32	15.5%
Supervisor (1st level)	40	19.3%
Non-supervisory	107	51.7%
Length of time in current job		
< 1year	33	15.9%
1–3 year	53	25.6%
4–6 years	59	28.5%
7–9 years	22	10.6%
10 years and above	40	19.3%

Table 8 continues

Profile	Frequency (N=207)	
	n	%
Number of employees		
< 30 employees	45	21.7%
30–50 employees	23	11.1%
51–200 employees	38	18.4%
>200 employees	101	48.8%
Industry		
Technology industry	60	29.0%
Manufacturing industry	43	20.8%
Service industry	69	33.3%
Financial industry	16	7.7%
Import/Export commerce	13	6.3%
Retail	3	1.4%
Others	3	1.4%

The majority of respondents were from sales and service (45.9%), followed by operation (22.2%), administration (15.1%), financial (10.1%), and R&D (6.3%). Regarding job position, 48.3% respondents worked as supervisors and above (i.e., executives, managers, and supervisors), and 51.7% were non-supervisory. In terms of the length of time at the current position, 41.5% of respondents worked in their current job for less than 4 years, 28.5% worked in their current job for 4 to 6 years, and 29.9% of respondents worked for 7 years and longer.

With the size of organizations, 48.8% of respondents worked in the company with over 200 employees, 29.5% of respondents belonged to companies with 30 to 200 employees, and 21.7% of respondents came from companies with fewer than 30 employees. Regarding industry, 29% of respondents worked in technology, 20.8% in manufacturing, 33.3% in service, 7.7% in finance, and 6.3 worked in import/export commerce.

Reliability and Validity

Reliability and validity tests were required ahead of the examination for the main research model and statements in this research. In reliability analysis, an alpha of 0.7 and above is considered acceptable (Hair et al., 1992; 1998; Nunnally, 1967; Cronbach, 1951). Normally, the individual alpha should not be higher than the construct's alpha. Factor analysis is used to examine validity. Factor loading scores considerably exceeded the minimum threshold of 0.3 (Hair et al., 1992; 1998; Childs, 1970).

Soft TQM

A total 6 constructs (43 statements) were proposed to represent soft TQM execution. The result of soft TQM was contained as shown in Table 9, with most loadings ranging between 0.7 and 0.9. Survey items might be potentially problematic in factor analysis because of very low factor loadings. The reliability coefficient (Cronbach's alpha) values were calculated for each construct and statement. The original reliability coefficient of the constructs were within 0.864 (employee fulfillment,

employee involvement) and 0.929 (training and education) before adjustment (see Table 10).

Table 9. Factor analysis for Soft TQM

(N=207)

Construct	Factor loading
Leadership (LS)	
LS1. Top management shares similar beliefs about the future direction of this company.	0.796
LS2. Top management pursues long-term business success.	0.760
LS3. Top management anticipates change and makes plans to accommodate it.	0.864
LS4 Top management actively participates in quality and improvement process activities.	0.867
LS5. Top management focuses on quality rather than yields.	0.816
LS6. Top management empowers employees to take necessary action on their own.	0.744
LS7. Employees have the opportunity to share in and are encouraged to help the organization implement change.	0.815
LS8. Managers and supervisors understand how to motivate employees and encourage them to perform at their highest levels.	0.786
Employee Fulfillment (EF)	
EF1. I like my job because I'm doing what I want to do.	0.635
EF2. Employees in this company are dedicated to their jobs.	0.711
EF3. Our company improves working conditions in order to recognize employees' effort.	0.842
EF4. Our company has a salary promotion scheme for encouraging employee participation in quality improvement.	0.819
EF5. Position promotions are based on work quality in our company.	0.841
EF6. Employees' rewards and penalties are clear.	0.722

Table 9 continues

Construct	Factor loading
Employee Involvement (EI)	
EI1. Employees have the opportunity to suggest changes or modifications to existing processes.	0.769
EI2. Employees are actively involved in improving products, services, and processes.	0.849
EI3. Most employees' suggestions are implemented after an evaluation.	0.829
EI4. Employees are very committed to the success of our company.	0.800
EI5. Employees are held responsible for the output of their process.	0.628
EI6. Employees are encouraged to fix problems they find.	0.811
EI7. Our company has cross-functional teams.	0.628
Training and Education (TE)	
TE1. Managers and supervisors ensure that all employees receive training that helps them understand how and why the organization does what it does.	0.838
TE2. Employees in this organization understand the basic processes used to create our products and services.	0.809
TE3. Training in specific work skills (technical and vocational) is given to employees throughout the company.	0.779
TE4. Hourly employees in our company can receive appropriate training.	0.693
TE5. Employees are encouraged to accept education and training in our company.	0.842
TE6. Resources are available for employee education and training in our company.	0.870
TE7. Top management has established an environment that encourages continuous education.	0.881
TE8. Employees are regarded as valuable, long-term resources worthy of receiving education and training throughout their career.	0.833

Table 9 continues

Construct	Factor loading
Strategic Quality Policy (SQ)	
SQ1. Our company has a clear long-term vision statement.	0.750
SQ2. Our company has an effective quality improvement plan.	0.895
SQ3. Quality goals and policy are well communicated to the employees within the company.	0.863
SQ4. The processes for designing new products/services in this organization ensure quality.	0.780
SQ5. Employees involved in different processes know how to use statistical controlling methods to evaluate their processes.	0.772
SQ6. In our organization, numerical quotas are not the only, nor the most important, measure of an employee's performance.	0.670
SQ7. Our company has a career roadmap for employees.	0.801
SQ8. Our company encourages continual study and improvement of all of its products, services, and processes.	0.819
Customer Focus (CF)	
CF1. Our company has been customer focused for a long time, and customer satisfaction is considered in our company's strategic plan.	0.841
CF2. Managers and supervisors encourage activities that improve customer satisfaction.	0.803
CF3. Satisfying our customers and meeting their expectations are the most important things we do.	0.864
CF4. Our company conducts customer satisfaction surveys to collect complaints/opinions from customers.	0.746
CF5. Quality-related customer complaints are treated as a top priority.	0.839
CF6. Our company always conducts market research in order to collect information for improving our products.	0.707

Based on the results of reliability and factor analysis, five statements of soft TQM were eliminated from the survey: "I like my job because I'm doing what I want to do";

"Employees are held responsible for the output of their process"; "Our company has cross-functional teams"; "Hourly employees in our company can receive appropriate training"; "In our organization, numerical quotas are not the only, nor the most important, measure of an employee's performance." The survey questions for soft TQM were redundant from 43 to 38.

Table 10. Reliability analysis for Soft TQM (N=207)

Construct	Alpha if deleted
Leadership (Alpha= 0.923)	
LS1. Top management shares similar beliefs about the future direction of this company.	0.914
LS2. Top management pursues long-term business success.	0.918
LS3. Top management anticipates change and makes plans to accommodate it.	0.908
LS4. Top management actively participates in quality and improvement process activities.	0.907
LS5. Top management focuses on quality rather than yields.	0.912
LS6. Top management empowers employees to take necessary action on their own	0.918
LS7. Employees have the opportunity to share in and are encouraged to help the organization implement change.	0.912
LS8. Managers and supervisors understand how to motivate employees and encourage them to perform at their highest levels.	0.915

Table 10 continues

Construct	Alpha if deleted
Employee Fulfillment (Alpha= 0.864)	
EF1. I like my job because I'm doing what I want to do.	0.868
EF2. Employees in this company are dedicated to their jobs.	0.840
EF3. Our company improves working conditions in order to recognize employees' effort.	0.826
EF4. Our company has a salary promotion scheme for encouraging employee participation in quality improvement	0.832
EF5. Position promotions are based on work quality in our company.	0.825
EF6. Employees' rewards and penalties are clear.	0.852
Employee Involvement (Alpha= 0.864)	
EI1. Employees have the opportunity to suggest changes or modifications to existing processes.	0.870
EI2. Employees are actively involved in improving products, services, and processes.	0.857
EI3. Most employees' suggestions are implemented after an evaluation.	0.861
EI4. Employees are very committed to the success of our company.	0.865
EI5. Employees are held responsible for the output of their process.	0.885
EI6. Employees are encouraged to fix problems they find.	0.851
EI7. Our company has cross-functional teams.	0.888

Table 10 continues

Construct	Alpha if deleted
Training and Education (Alpha= 0.929)	
TE1. Managers and supervisors ensure that all employees receive training that helps them understand how and why the organization does what it does.	0.918
TE2. Employees in this organization understand the basic processes used to create our products and services.	0.921
TE3. Training in specific work skills (technical and vocational) is given to employees throughout the company.	0.923
TE4. Hourly employees in our company receive appropriate training.	0.930
TE5. Employees are encouraged to accept education and training in our company.	0.917
TE6. Resources are available for employee education and training in our company.	0.915
TE7. Top management has established an environment that encourages continuous education.	0.913
TE8. Employees are regarded as valuable, long-term resources worthy of receiving education and training throughout their careers.	0.919
Strategic Quality Policy (Alpha= 0.917)	
SQ1. Our company has a clear long-term vision statement.	0.910
SQ2. Our company has an effective quality improvement plan.	0.895
SQ3. Quality goals and policy are well communicated to the employees within the company.	0.899
SQ4. The processes for designing new products and services in this organization ensure quality.	0.907
SQ5. Employees involved in different processes know how to use statistical controlling methods to evaluate their processes.	0.908
SQ6. In our organization, numerical quotas are not the only, nor the most important, measure of an employee's performance.	0.916
SQ7. Our company has a career roadmap for employees.	0.905
SQ8. Our company encourages continual study and improvement of all its products, services, and processes.	0.903

Table 10 continues

Construct	Alpha if deleted
Customer Focus (Alpha= 0.884)	
CF1. Our company has been customer focused for a long time, and customer satisfaction is considered in our company's strategic plan.	0.858
CF2. Managers and supervisors encourage activities that improve customer satisfaction.	0.864
CF3. Satisfying our customers and meeting their expectations are the most important things we do.	0.853
CF4. Our company conducts customer satisfaction surveys to collect complaints and opinions from customers.	0.875
CF5. Quality-related customer complaints are treated as a top priority.	0.855
CF6. Our company always conducts market research in order to collect information for improving our products.	0.880

Organization Sustainability

Table 11 illustrates the factor loading scores for each set of organization sustainability constructs and measured statement, and Table 12 illustrates its original reliability result accordingly. The reliability coefficient (Cronbach's alpha) values for organization sustainability constructs were within 0.867 (employee commitment) and 0.950 (employability) before modification. Most loadings ranged between 0.7 and 0.9 as well. Consistent with the results of the analysis, the analyzed questions for organization sustainability decreased from 18 to 16. Two statements were withdrawn from the survey: "I really care about the fate of my company," and "One of the few negative consequences of leaving this company would be the scarcity of available alternatives."

Table 11. Factor analysis for Organization Sustainability (N=207)

Construct (Organization Sustainability)	Factor loading
Organizational Identification	
OI1. I am proud to be an employee of my current company.	0.873
OI2. I talk up my company to my friends as a great company to work for.	0.890
OI3. I have warm feelings toward my company as a place to work.	0.882
OI4. I feel that my company cares about me.	0.869
OI5. I find that my values and the values of my company are similar.	0.890
OI6. I really care about the fate of my company.	0.708
Employee Commitment	
EC1. I would be very happy to spend the rest of my career with this company.	0.862
EC2. I do feel a strong sense of "belonging" to my company.	0.875
EC3. Right now, staying with my company is a matter of necessity as much as desire.	0.812
EC4. One of the few negative consequences of leaving this company would be the scarcity of available alternatives.	0.550
EC5. I do feel an obligation to remain with my current employer.	0.780
EC6. Even if it were to my advantage, I do not feel it would be right to leave my company now.	0.772
Employability	
EMP1. During the past year, I was, in general, competent to perform my work accurately and with few mistakes.	0.882
EMP2. During the past year, I was, in general, competent to make prompt decisions with respect to my approach to work.	0.927
EMP3. I consider myself competent to provide information on my work in a way that is comprehensible.	0.910
EMP4. During the past year, I was, in general, competent to carry out my work independently.	0.904
EMP5. I consider myself competent to be of practical assistance to colleagues with questions about the approach to work.	0.862
EMP6. I consider myself competent to weigh the "pros" and "cons" of particular decisions on working methods, materials, and techniques in my job domain.	0.881

Table 12. Reliability for Organization Sustainability

(N=207)

Construct (Organization Sustainability)	Alpha if deleted
Organizational Identification (Alpha= 0.925)	
OI1. I am proud to be an employee of my current company.	0.909
OI2. I talk up my company to my friends as a great company to work for.	0.905
OI3. I have warm feelings toward my company as a place to work.	0.908
OI4. I feel that my company cares about me.	0.906
OI5. I find that my values and the values of my company are similar.	0.909
OI6. I really care about the fate of my company.	0.933
Employee Commitment (Alpha= 0.867)	
EC1. I would be very happy to spend the rest of my career with this company.	0.826
EC2. I do feel a strong sense of "belonging" to my company.	0.825
EC3. Right now, staying with my company is a matter of necessity as much as desire.	0.838
EC4. One of the few negative consequences of leaving this company would be the scarcity of available alternatives.	0.884
EC5. I do feel an obligation to remain with my current employer.	0.843
EC6. Even if it were to my advantage, I do not feel it would be right to leave my company now.	0.845
Employability (Alpha= 0.950)	
EMP1. During the past year, I was, in general, competent to perform my work accurately and with few mistakes.	0.8942
EMP2. During the past year, I was, in general, competent to make prompt decisions with respect to my approach to work.	0.935
EMP3. I consider myself competent to provide information on my work in a way that is comprehensible.	0.938
EMP4. During the past year, I was, in general, competent to carry out my work independently.	0.939
EMP5. I consider myself competent to be of practical assistance to colleagues with questions about the approach to work.	0.945
EMP6. I consider myself competent to weigh the "pros" and "cons" of particular decisions on working methods, materials, and techniques in my job domain.	0.943

The final statement number and the new reliability analysis results for each construct are shown in Tables 13 and 14. The Cronbach's alpha values slightly increased after modifying the survey questions.

Table 13. Internal Consistency Analysis for Soft TQM

Constructs	Number of Statements	Deleted Number	New Cronbach's Alpha
Leadership	8	No	0.923
Employee Fulfillment	5	1	0.868
Employee Involvement	5	2	0.896
Training and Education	7	1	0.930
Strategic Quality Policy	7	1	0.916
Customer Focus	6	No	0.884

Table 14. Internal Consistency Analysis for Organization Sustainability

Constructs	Number of Statements	Deleted Number	New Cronbach's Alpha
Organization Identification	5	1	0.933
Employee Commitment	5	1	0.884
Employability	6	No	0.950

Descriptive Statistics

Tables 15 and 16 present the mean, mode, and standard deviation of each survey statement of soft TQM and organization sustainability. Mean scores of soft TQM indicate that "customer focus" had the highest mean score of all constructs, and

"employee fulfillment" received the worst mean score. In organization sustainability, most respondents expressed strong agreement in "employability" which also obtained higher mean score than others. In accordance with national culture, U.S. organizations acquired higher mean scores than Taiwanese and Japanese companies in the entire soft TQM and organization sustainability measurement constructs (Table 17).

Table 15. Descriptive Statistics for Soft TQM

(N=207)	Measurement Item	Mean	Mode	SD
Leadership	LS1	4.26	5	1.250
(mean: 4.08)	LS2	4.52	5	1.318
	LS3	4.04	4	1.349
	LS4	4.13	5	1.363
	LS5	3.77	4	1.384
	LS6	4.11	4	1.304
	LS7	4.05	4	1.376
	LS8	3.78	4	1.392
Employee Fulfillment				
(mean: 3.77)	EF2	4.01	4	1.346
	EF3	3.88	4	1.367
	EF4	3.63	4	1.452
	EF5	3.65	5(a)	1.534
	EF6	3.69	4	1.436

Table 15 continues

(N=207)	Measurement Item	Mean	Mode	SD
Employee Involvement				
(mean: 3.92)	EI1	3.92	4	1.269
	EI2	3.86	4	1.275
	EI3	3.64	4	1.311
	EI4	4.00	4	1.412
	EI6	4.20	5	1.271
Training and Education				
(mean: 4.06)	TE1	4.00	4	1.193
	TE2	4.33	5	1.164
	TE3	4.26	5	1.253
	TE5	4.27	5	1.304
	TE6	3.85	4	1.422
	TE7	3.76	4	1.354
	TE8	3.94	5	1.444
Strategic Quality Policy				
(mean: 3.94)	SQ1	4.38	5	1.301
	SQ2	3.89	4	1.308
	SQ3	4.06	4	1.311
	SQ4	4.28	5	1.284
	SQ5	3.75	4	1.316
	SQ7	3.18	4	1.402
	SQ8	4.02	4	1.311

Table 15 continues

(N=207)	Measurement Item	Mean	Mode	SD
Customer Focus				
(mean: 4.44)	CF1	4.55	5	1.189
	CF2	4.52	5	1.182
	CF3	4.72	5	1.140
	CF4	4.11	4	1.412
	CF5	4.52	5	1.214
	CF6	4.24	5	1.317

Table 16. Descriptive Statistics for Organization Sustainability

(N=207)	Measurement Item	Mean	Mode	SD
Organization Identification				
(mean: 3.94)	OI1	4.28	4	1.296
	OI2	4.04	4	1.401
	OI3	3.99	5	1.460
	OI4	3.75	4	1.456
	OI5	3.65	4	1.454
Employee Commitment				
(mean: 3.80)	EC1	3.78	3	1.529
	EC2	3.87	4	1.379
	EC3	4.12	4	1.326
	EC5	3.68	4	1.353
	EC6	3.53	4	1..481

Table 16 continues

(N=207)	Measurement Item	Mean	Mode	SD
Employability (mean: 4.72)	EMP1	4.60	5	0.974
	EMP2	4.66	5	0.987
	EMP3	4.75	5	0.931
	EMP4	4.80	5	0.979
	EMP5	4.82	5	0.936
	EMP6	4.69	5	1.016

Table 17. Construct Mean Scores by Country

		Country		
(N=207)	Construct	TW (n=72)	JP (n=64)	US (n=71)
Leadership		3.99	3.95	4.28
Employee Fulfillment		3.66	3.66	3.99
Employee Involvement		3.84	3.65	4.25
Training and Education		3.76	3.97	4.44
Strategic Quality Policy		3.75	3.84	4.21
Customer Focus		4.32	4.36	4.63
Organization Identification		3.68	3.68	4.45
Employee Commitment		3.65	3.57	4.15
Employability		4.57	4.54	5.04

Tables 18 and 19 show the breakdown by agreement rate (HA: high agree, the top two boxes of a 6-scale Likert scheme; DA: disagree, the bottom two boxes of a 6-scale Likert scheme) and by organization culture. When comparing the agreement

rate results for soft TQM statements, the two statements received higher agreement rankings from employees of Taiwanese and Japanese organizations: "Top management pursues long-term business success (LS2)" and "Satisfying our customers, and meeting their expectations, are the most important things we do (CF3)." Employees in the U.S. organization ranked high the following two statements: "Satisfying our customers, and meeting their expectations, are the most important things we do (CF3)" and "Managers and supervisors encourage activities that improve customer satisfaction (CF2)." The statement that had the highest disagreement rate of all three cultures was "Our company has a career roadmap for employees (SQ7)."

Table 18. Agreement Rate of Soft TQM Statement

		Country					
		TW (n=72)		*JP (n=64)*		*US (n=71)*	
STQM (N=207)		HA	DA	HA	DA	HA	DA
Leadership	LS1	41.7%	13.9%	51.6%	7.8%	56.3%	9.9%
	LS2	61.1%	13.9%	62.5%	3.1%	62.0%	11.3%
	LS3	37.5%	13.9%	37.5%	18.8%	46.5%	11.3%
	LS4	38.9%	13.9%	39.1%	12.5%	53.5%	9.9%
	LS5	27.8%	16.7%	34.4%	18.8%	31.0%	21.1%
	LS6	44.4%	12.5%	29.7%	15.6%	52.1%	9.9%
	LS7	31.9%	12.5%	53.1%	14.1%	53.5%	18.3%
	LS8	30.6%	22.2%	23.4%	21.9%	42.3%	9.9%

Table 18 continues

		Country					
		TW (n=72)		*JP (n=64)*		*US (n=71)*	
STQM (N=207)		HA	DA	HA	DA	HA	DA
Employee Fulfillment							
	EF2	29.2%	11.1%	32.8%	20.3%	54.9%	16.9%
	EF3	25.0%	18.1%	29.7%	17.2%	50.7%	12.7%
	EF4	27.8%	25.0%	29.7%	26.6%	32.4%	16.9%
	EF5	30.6%	19.4%	32.8%	28.1%	38.0%	23.9%
	EF6	27.8%	22.2%	37.5%	23.4%	28.2%	15.5%
Employee Involvement							
	EI1	27.8%	12.5%	25.0%	23.4%	45.1%	14.1%
	EI2	26.4%	13.9%	20.3%	17.2%	46.5%	12.7%
	EI3	25.0%	19.4%	17.2%	17.2%	36.6%	18.3%
	EI4	31.9%	19.4%	34.4%	15.6%	53.5%	15.5%
	EI6	37.5%	8.3%	37.5%	18.8%	59.2%	5.6%
Training and Education							
	TE1	29.2%	15.3%	37.5%	14.1%	46.5%	9.9%
	TE2	37.5%	13.9%	48.4%	9.4%	64.3%	5.7%
	TE3	45.8%	16.7%	43.8%	9.4%	52.1%	4.2%
	TE5	37.5%	12.5%	50.0%	12.5%	62.0%	8.5%
	TE6	20.8%	29.2%	34.4%	15.6%	52.1%	11.3%
	TE7	22.2%	27.8%	26.6%	20.3%	45.1%	11.3%
	TE8	30.6%	25.0%	40.6%	23.4%	54.9%	7.0%

Table 18 continues

		Country					
		TW (n=72)		*JP (n=64)*		*US (n=71)*	
STQM (N=207)		HA	DA	HA	DA	HA	DA
Strategic Quality Policy							
	SQ1	41.7%	18.1%	56.3%	10.9%	63.4%	4.2%
	SQ2	26.4%	20.8%	39. 1%	15.6%	42.3%	12.7%
	SQ3	34.7%	20.8%	40.6%	10.9%	49.3%	11.3%
	SQ4	36.1%	11.1%	53.1%	9.4%	56.3%	9.9%
	SQ5	25.0%	16.7%	25.0%	21.9%	39.4%	15.5%
	SQ7	16.7%	38.9%	10.9%	45.3%	26.8%	25.4%
	SQ8	30.6%	15.3%	34.4%	20.3%	50.7%	9.9%
Customer Focus							
	CF1	52.8%	9.7%	54.7%	7.8%	66.2%	5.6%
	CF2	48.6%	5.6%	50.0%	12.5%	69.0%	4.2%
	CF3	61.1%	2.8%	62.5%	6.3%	71.8%	7.0%
	CF4	36.1%	15.3%	43.8%	17.2%	47.9%	16.9%
	CF5	47.2%	5.6%	57.8%	6.3%	64.8%	8.5%
	CF6	43.1%	12.5%	46.9%	12.5%	54.9%	11.3%

Table 19. Agreement Rate of Organization Sustainability Statement

Organization Sustainability (N=207)		Country					
		TW (n=72)		*JP (n=64)*		*US (n=71)*	
		HA	**DA**	**HA**	**DA**	**HA**	**DA**
Organization Identification	OI1	30.6%	13.9%	39.1%	12.5%	69.0%	5.6%
	OI2	26.4%	19.4%	29.7%	17.2%	64.8%	8.5%
	OI3	36.1%	19.4%	35.9%	21.9%	54.9%	14.1%
	OI4	23.6%	23.6%	29.7%	26.6%	49.3%	16.9%
	OI5	19.4%	29.2%	23.4%	26.6%	49.3%	14.1%
Employee Commitment							
	EC1	26.4%	27.8%	34.4%	29.7%	47.9%	12.7%
	EC2	25.0%	19.4%	29.7%	25.0%	46.5%	5.6%
	EC3	34.7%	13.9%	35.9%	18.8%	47.9%	9.9%
	EC5	26.4%	22.2%	20.3%	21.9%	29.6%	15.5%
	EC6	23.6%	26.4%	23.4%	29.7%	36.6%	22.5%
Employability							
	EMP1	51.4%	1.4%	48.4%	4.7%	73.2%	26.8%
	EMP2	54.2%	2.8%	51.6%	3.1%	78.9%	1.4%
	EMP3	59.7%	1.4%	57.8%	3.1%	80.3%	--
	EMP4	65.3%	2.8%	62.5%	3.1%	78.9%	--
	EMP5	68.1%	1.4%	60.9%	4.7%	83.1%	--
	EMP6	56.9%	2.8%	59.4%	4.7%	77.5%	1.4%

In terms of organization sustainability, employees who worked in the American company had higher agreement ratings than those who worked in the Japanese and the Taiwanese companies. The disagreement rate for the American company was

much lower than other surveyed cultures as well. No one in the American company considered disagreeing with following agreements: "I consider myself competent to provide information on my work in a way that is comprehensible (EMP3); "During the past year, I was, in general, competent to carry out my work independently (EMP4)"; and "I consider myself competent to be of practical assistance to colleagues with questions about the approach to work (EMP5)."

Correlation Coefficients

The bivariate correlation exhibited correlation matrices for mean scores among key investigated aspects. In these tables, LSM represents the mean of Leadership; EFM is the mean of Employee Fulfillment…mutatis mutandis to other constructs.

Table 20. Bivariate Correlation Matrices for Mean Scores—Within All Surveyed Constructs

	LSM	EFM	EIM	TEM	SQM	CFM	OIM	ECM	EMPM
LSM	1								
EFM	.783(**)	1							
EIM	.724(**)	.740(**)	1						
TEM	.692(**)	.695(**)	.746(**)	1					
SQM	.772(**)	.766(**)	.821(**)	.840(**)	1				
CFM	.610(**)	.593(**)	.639(**)	.729(**)	.691(**)	1			
OIM	.728(**)	.769(**)	.773(**)	.712(**)	.762(**)	.566(**)	1		
ECM	.454(**)	.524(**)	.568(**)	.478(**)	.493(**)	.409(**)	.715(**)	1	
EMPM	.218(**)	.223(**)	.333(**)	.331(**)	.250(**)	.386(**)	.297(**)	.308(**)	1

** Correlation is significant at the 0.01 level (2tailed).

Table 21. Bivariate Correlation Matrices for Mean Scores—Within Soft TQM vs. Country

	LSM	EFM	EIM	TEM	SQM	CFM	Country
LSM	1						
EFM	.783(**)	1					
EIM	.724(**)	.740(**)	1				
TEM	.692(**)	.695(**)	.746(**)	1			
SQM	.772(**)	.766(**)	.821(**)	.840(**)	1		
CFM	.610(**)	.593(**)	.639(**)	.729(**)	.691(**)	1	
Country	.109	.120	.154(*)	.254(**)	.176(*)	.131	1

** Correlation is significant at the 0.01 level (2tailed).
* Correlation is significant at the 0.05 level (2tailed).

Table 22. Bivariate Correlation Matrices for Mean Scores—Within Organization Sustainability vs. Country

	OIM	ECM	EMPM	Country
OIM	1			
ECM	.715(**)	1		
EMPM	.297(**)	.308(**)	1	
Country	.255(**)	.179(**)	.224(**)	1

** Correlation is significant at the 0.01 level (2tailed).

Results signified that entire soft TQM and organization sustainability had significant correlation at the 0.01 level (see Table 20). Within soft TQM, mid- to high-positive correlation existed among the constructs, and constructs from organization sustainability displayed positive correlation as well. A bivariate correlation analysis specified that national culture had a positive correlation with some soft TQM constructs (i.e., Employee Involvement, Training and Education, and Strategic Quality Policy) and with the entire organization sustainability constructs (see Tables 21 and 22).

As described in the previous chapter, the assumption was made that if a company continuously made a profit in each of three consecutive years (from 2007 to 2009), it is presupposed to have the ability to remain sustainably competitive. Results indicated that profitability (BG5: "As far as you know, did the company you work for make a profit in each of the past three years?") had low positive correlation with soft TQM constructs, as does competitiveness ability (BG6: "Do you think the company you work for has sustained competitive advantage in the industry?"). Results of organization sustainability versus profitability and competitiveness had low positive correlation as well (see Tables 23 and 24). Additionally, regarding background questions, respondents' job position, organizational employee number, and industry had no significant correlation with soft TQM execution and organization sustainability constructs.

Table 23. Correlation Among Soft TQM Construct, Profitability and Competitiveness

	LSM	EFM	EIM	TEM	SQM	CFM	BG5	BG6
LSM	1							
EFM	.783(**)	1						
EIM	.724(**)	.740(**)	1					
TEM	.692(**)	.695(**)	.746(**)	1				
SQM	.772(**)	.766(**)	.821(**)	.840(**)	1			
CFM	.610(**)	.593(**)	.639(**)	.729(**)	.691(**)	1		
BG5	.193(**)	.244(**)	.218(**)	.250(**)	.209(**)	.208(**)	1	
BG6	.514(**)	.465(**)	.417(**)	.438(**)	.480(**)	.418(**)	.468(**)	1

** Correlation is significant at the 0.01 level (2tailed).

Table 24. Correlation Among OS Construct and Profitability and Competitiveness

	OIM	ECM	EMPM	BG5	BG6
OIM	1				
ECM	.715(**)	1			
EMPM	.297(**)	.308(**)	1		
BG5	.254(**)	.235(**)	.220(**)	1	
BG6	.505(**)	.318(**)	.190(**)	.468(**)	1

** Correlation is significant at the 0.01 level (2tailed).

Splitting survey data into three countries (US, JP, and TW), the correlation analysis results indicate that soft TQM constructs remain significant correlated to Taiwanese,

Japanese, and American organization culture. However, different from the overall alpha result, organization sustainability constructs had partial correlation in different national cultures (see Tables 25 through 27). In addition, the length of time employed (BG3) had significant correlation with the entire soft TQM constructs under Taiwanese organization culture.

ANOVA

One-way ANOVA was employed in examining if soft TQM and organization sustainability constructs' mean score had significant differences in Taiwanese, Japanese, and American organizational culture. In the ANOVA summary (see Table 27), the significant scores <0.05 mean that the surveyed item has significant differences. Consistent with correlation analysis, ANOVA analysis results specified that three constructs—Employee Involvement, Training and Education, and Strategic Quality Policy—received significantly different scores in the three surveyed cultures.

Table 25. Soft TQM vs. OS Constructs by Country—Taiwan

	LSM	EFM	EIM	TEM	SQM	CFM	OIM	ECM	EMPM
LSM	1								
EFM	.832(**)	1							
EIM	.785(**)	.804(**)	1						
TEM	.856(**)	.810(**)	.800(**)	1					
SQM	.879(**)	.804(**)	.814(**)	.905(**)	1				
CFM	.764(**)	.740(**)	.699(**)	.734(**)	.733(**)	1			
OIM	.836(**)	.810(**)	.806(**)	.835(**)	.799(**)	.747(**)	1		
ECM	.591(**)	.579(**)	.680(**)	.607(**)	.536(**)	.533(**)	.704(**)	1	
EMPM	.250(*)	.216	.365(**)	.286(*)	.223	.269(*)	.256(*)	.358(**)	1

** Correlation is significant at the 0.01 level (2tailed).
* Correlation is significant at the 0.05 level (2tailed)

Table 26. Soft TQM vs. OS Constructs by Country—Japan

	LSM	EFM	EIM	TEM	SQM	CFM	OIM	ECM	EMPM
LSM	1								
EFM	.705(**)	1							
EIM	.741(**)	.804(**)	1						
TEM	.711(**)	.754(**)	.748(**)	1					
SQM	.815(**)	.819(**)	.851(**)	.804(**)	1				
CFM	.670(**)	.625(**)	.704(**)	.696(**)	.698(**)	1			
OIM	.719(**)	.827(**)	.674(**)	.640(**)	.752(**)	.510(**)	1		
ECM	.479(**)	.609(**)	.422(**)	.367(**)	.496(**)	.278(*)	.788(**)	1	
EMPM	.193	.299(*)	.230	.222	.257(*)	.446(**)	.233	.237	1

** Correlation is significant at the 0.01 level (2tailed).
* Correlation is significant at the 0.05 level (2tailed).

Table 27. Soft TQM vs. OS Constructs by Country—US

	LSM	EFM	EIM	TEM	SQM	CFM	OIM	ECM	EMPM
LSM	1								
EFM	.789(**)	1							
EIM	.641(**)	.617(**)	1						
TEM	.495(**)	.508(**)	.683(**)	1					
SQM	.620(**)	.672(**)	.803(**)	.783(**)	1				
CFM	.407(**)	.409(**)	.522(**)	.754(**)	.637(**)	1			
OIM	.618(**)	.666(**)	.804(**)	.576(**)	.713(**)	.418(**)	1		
ECM	.242(*)	.338(**)	.526(**)	.353(**)	.390(**)	.376(**)	.597(**)	1	
EMPM	.130	.055	.293(*)	.360(**)	.164	.371(**)	.228	.194	1

** Correlation is significant at the 0.01 level (2tailed).
* Correlation is significant at the 0.05 level (2tailed).

Table 28. ANOVA Summary (Grouping by Country)

		Sum of Squares	df	Mean Square	F	Sig.
LSM	Between Groups	4.423	2	2.211	1.903	.152
	Within Groups	237.047	204	1.162		
	Total	241.470	206			
EFM	Between Groups	5.253	2	2.626	1.986	.140
	Within Groups	269.846	204	1.323		
	Total	275.099	206			

Table 28 continues

		Sum of Squares	df	Mean Square	F	Sig.
EIM	Between Groups	12.762	2	6.381	5.503	.005
	Within Groups	236.552	204	1.160		
	Total	249.314	206			
TEM	Between Groups	16.832	2	8.416	7.427	.001
	Within Groups	231.170	204	1.133		
	Total	248.002	206			
SQM	Between Groups	8.258	2	4.129	3.656	.028
	Within Groups	230.415	204	1.129		
	Total	238.673	206			
CFM	Between Groups	3.964	2	1.982	2.037	.133
	Within Groups	198.452	204	.973		
	Total	202.415	206			
OIM	Between Groups	27.653	2	13.827	9.489	.000
	Within Groups	297.251	204	1.457		
	Total	324.904	206			
ECM	Between Groups	13.994	2	6.997	5.321	.006
	Within Groups	268.281	204	1.315		
	Total	282.275	206			
EMPM	Between Groups	10.948	2	5.474	7.742	.001
	Within Groups	144.245	204	.707		
	Total	155.193	206			

Summary

Surveys for this research were conducted during the 2010 summer and received 207 responses. The population answering the research questions was comprised of full time employees in Japan, Taiwan, and the United States-affiliated company in

Taiwan. SPSS functions such as descriptive statistics, frequency, reliability, factor loading, bivariate correlation, and ANOVA were utilized to analyze survey data.

This chapter discussed the results of the raw data. Further interpretation of results conducted in this research lead to significant conclusions of this survey. Findings to answer the research questions will be presented in next chapter.

Chapter 5: Discussion

To go beyond the data analysis in the Results chapter, this chapter contains four divisions: conclusion, implication for organizations, study limitations, and recommendations for future research. The conclusion section includes the answer for the research questions and presents findings for data analysis results. The research questions discussed in this chapter are as follows:

1. What are the statements for soft TQM's elements?
2. Is there a difference in soft TQM practices under Taiwanese, Japanese, and American national cultural background?
3. What is the correlation, if any, between soft TQM and organization sustainability (i.e., organizational identification, commitment of employees, and employability)?
4. What is the correlation, if any, between soft TQM and organizational profitability and competitiveness?

Subsequent to survey findings, conveying the discoveries to an organization is meaningful for OD. Study limitations and recommendations for future research are discussed in this chapter.

Conclusions

The purpose of this chapter is to discuss the central topic of the dissertation, the relationship between soft TQM and organization sustainability under different

national cultural backgrounds. This section presents the research findings based on the statistical analysis results in Chapter 4.

Question 1: "What are the statements for soft TQM's elements?"

The review of literature related to TQM revealed no list of soft TQM constructs, and statements were even fewer and fragmentary. Therefore, 43 statements for soft TQM elements were proposed and examined for their validity and reliability (see results in Tables 9 and 10). Results specified that only 38 statements should remain: 8 for leadership, 5 for employee fulfillment, 5 for employee involvement, 7 for training and education, 7 for strategic quality policy, and 6 for customer focus. The final statements for soft TQM elements are listed below.

Leadership

- Top management shares similar beliefs about the future direction of this company.
- Top management pursues long-term business success.
- Top management anticipates change and makes plans to accommodate it.
- Top management actively participates in quality and improvement process activities.
- Top management focuses on quality rather than yields.
- Top management empowers employees to take necessary action on their own.
- Employees have the opportunity to share in and are encouraged to help the organization implement change.

- Managers and supervisors understand how to motivate employees and encourage them to perform at their highest levels.

Employee Fulfillment

- Employees in this company are dedicated to their jobs.
- Our company improves working conditions in order to recognize employees' effort.
- Our company has a salary promotion scheme for encouraging employee participation in quality improvement.
- Position promotions are based on work quality in our company.
- Employees' rewards and penalties are clear.

Employee Involvement

- Employees have the opportunity to suggest changes or modifications to existing processes.
- Employees are actively involved in improving products, services, and processes.
- Most employees' suggestions are implemented after an evaluation.
- Employees are very committed to the success of our company.
- Employees are encouraged to fix problems they find.

Training and Education

- Managers and supervisors ensure that all employees receive training that helps them understand how and why the organization does what it does.
- Employees in this organization understand the basic processes used to create our products and services.

- Training in specific work skills (technical and vocational) is given to employees throughout the company.
- Employees are encouraged to accept education and training in our company.
- Resources are available for employee education and training in our company.
- Top management has established an environment that encourages continuous education.
- Employees are regarded as valuable, long-term resources worthy of receiving education and training throughout their careers.

Strategic Quality Policy

- Our company has a clear long-term vision statement.
- Our company has an effective quality improvement plan.
- Quality goals and policy are well communicated to the employees within the company.
- The processes for designing new products and services in this organization ensure quality.
- Employees involved in different processes know how to use statistical controlling methods to evaluate their processes.
- Our company has a career roadmap for employees.
- Our company encourages continual study and improvement of all of its products, services, and processes.

Customer Focus

- Our company has been customer focused for a long time, and customer satisfaction is considered in our company's strategic plan.
- Managers and supervisors encourage activities that improve customer satisfaction.
- Satisfying our customers and meeting their expectations are the most important things we do.
- Our company conducts customer satisfaction surveys to collect complaints and opinions from customers.
- Quality-related customer complaints are treated as a top priority.
- Our company always conducts market research in order to collect information for improving our products.

Question 2: "Is there a difference in soft TQM practices under Taiwanese, Japanese, and American national culture background?"

Yes, there are differences in soft TQM execution under Taiwanese, Japanese, and American national culture background. Bivariate correlation analysis (see Table 21) indicates that national culture has a positive correlation with partial soft TQM constructs (i.e., Employee Involvement, Training and Education, and Strategic Quality Policy). ANOVA analysis (Table 28) also specifies that when grouping data by countries, scores that mentioned three constructs had significant differences in diverse organizational culture.

Mean scores of the American company for soft TQM constructs acquired higher rankings than in Taiwanese and Japanese companies. In addition, correlation analysis results indicated that Japanese organizational culture had a significant difference from US and Taiwanese culture for the statement "Top management empowers employees to take necessary action on their own (LS6)." American companies had significant differences from Japanese and Taiwanese companies for most of the statements of employee involvement, training, and education constructs:

- "Managers and supervisors understand how to motivate employees and encourage them to perform at their highest levels" (LS8);
- "Our company improves working conditions in order to recognize employees' effort" (EF3);
- "Our company has a clear long-term vision statement" (SQ1);
- "Our company has a career roadmap for employees" (SQ7); and
- "Managers and supervisors encourage activities that improve customer satisfaction" (CF2).

Survey result did not find that Taiwanese organization culture had significant differences in any single soft TQM statement from other surveyed organizational cultures.

Question 3: "What is the correlation, if any, between soft TQM and organization sustainability (organizational identification, commitment of employees, and employability)?"

As shown in Table 20, bivariate correlation analysis results showed a statistically significant correlation between soft TQM and organization sustainability constructs at the 0.01 level. The data was divided into three groups (by country) and then examined for relationships among the individual constructs of soft TQM and organization sustainability. Results indicated that organization sustainability constructs, organizational identification and employee commitment, had significant correlation with all soft TQM constructs. However, one organization sustainability construct, employability, had significant correlation with contingent soft TQM constructs in different national culture (see Tables 25 through 27).

Question 4: "What is the correlation, if any, between soft TQM and organizational profitability and competitiveness?"

Using the assumption that if companies continuously made a profit from 2007 to 2009, the years most affected by the global financial crisis, they can be presupposed to have the ability to remain sustainably competitive. Thus, this research proposes two questions for profitability and competitiveness: "As far as you know, did the company you work for make a profit in each of the past three years?" (BG5); "Do you think the company you work for has sustained competitive advantage in the industry?" (BG6). As shown in Table 23, correlation coefficient results illustrate that soft TQM constructs had significant correlation with organizational profitability and competitiveness at the 0.01 level.

Other findings

Following are other findings from the data analysis:

- Number of employees in the company (BG4) and which industry the company belongs to (BG7) had no significant correlation to soft TQM constructs.
- Job function (BG1) had a significant correlation with the Training and Education mean score.
- Job position (BG2) had a significant correlation with Leadership, Employee Fulfillment, Employee Involvement, and Strategic Quality Policy.
- Service years (BG3) had a significant correlation with Employee Involvement.
- In the Taiwanese organization, the length of time employed (BG3) had a significant correlation with entire soft TQM constructs execution.
- Soft TQM execution in the American company had no significant correlation with any pre-set demographic questions (job function, position, length of time employed, employee number in organization, and industry).

Within the soft TQM constructs and the participants' background, overall correlation scores indicated that organizational scope and industry had no correlation with soft TQM's execution. TQM has performed well in the manufacturing industry; however, the "human (soft)" side of TQM seems unrestricted in specific industries only. Training and education had slight correlation to job function, especially in Japanese organizational culture. Job position directly linked to hierarchy, management's leadership, quality policy setting, and how employees get involved in organizational

process improvements are correlated. Findings indicate that the length of time employees are employed by an organization correlates with the mean scores of employee involvement. Therefore, it is assumed that participation of employees depends on their seniority. This occurrence is more pronounced in Taiwanese organizational culture, for which the length of service years in the current company has significant correlation with all soft TQM constructs. Taiwanese culture tends to be relationship-oriented, with emphasis more on interpersonal relationships (Guan Xi). On the other hand, American national culture has low power distance and low uncertainty avoidance. Consistent with survey results, soft TQM execution in the American company would not be influenced by job function, position, or length of time employed.

Implication for Organization Development

As Cummings and Worley (2001) addressed in the seventh edition of *Organization Development and Change*, OD is increasing. Yaeger (2001) contends that the nature and content of the field of Organization Development has clearly changed over the years. It has become more corporate, more global, and more strategic. According to the definition, this study applied an advanced phase of TQM and recognized its relation in three different organizational cultures. This study successfully identifies and verifies the statements of soft TQM; moreover, survey results prove soft TQM execution has positive correlation with organization sustainability.

These research findings can be extended into action for an organization. First, it can provide a new phase of TQM. Total quality management is well known for implementing statistics and in controlling operational process time to have superior quality and service performance. However, the increasing focus has been on TQM programs' insufficient concern for human factors. This study provides a whole picture for the soft side of TQM. Second, it presents an empirically cross-cultural comparison. For understanding soft TQM execution in different organizational cultures, a survey measuring soft TQM execution in American, Japanese, and Taiwanese companies was conducted. Survey results are meaningful and useful for indicating the strengths and weaknesses of different organizational cultures. Third, it generated an instrument for soft TQM measurement. The statistical analyses in this research found significant conclusions for this survey instrument, especially in soft TQM elements. Last, it offers executable behavior for soft TQM. Actually and essentially, the survey statements of soft TQM are not only useful as description but also as executable behavior for implementing soft TQM.

As Yaeger (2001) stated, organization development becomes more corporate, global, and strategic. Today's organizations require more innovative approaches. One such approach is a more "soft" model of TQM.

Research Limitations

This study was limited in a number of ways. The length of time for answering the entire questionnaire was considered; therefore, the number of survey questions was

limited. This study was conducted in Taiwan. Although studies showed that organization culture would be affected by national culture of origin, cultural bias was possible. In addition, an anonymous electronic survey was utilized to collect data. Thus, data was gathered from those who voluntarily participated in the study, which automatically generated a potential bias on data sources.

Recommendations for Future Research

Future research should include a broader sample from surveyed national cultures. To conquer the possible cultural bias, samples would recruited from the countries of origin (the United States, Japan, and Taiwan). Moreover, further testing is recommended to explore cultures beyond the three original cultures to determine this study's universal appeal. A longitudinal study could be useful to further detect for modification. In addition, qualitative group discussion might also be employed to prove the findings and enhance further research constitution.

Summary

This chapter described the answers for research questions, other findings, implication, research limitations, and recommendations for future research. Results from Chapter 4 identified the statements of soft TQM. Moreover, the statistical analyses indicated that soft TQM practices have significant difference under Taiwanese, Japanese, and American national culture background. Soft TQM constructs have significant correlation with organizational profitability and competitiveness as well. In addition, results proved soft TQM constructs have statistical significant correlation with

organization sustainability (organizational identification, employee commitment, and employability).

A new stage of TQM, soft TQM, is supplied in this research. The description of its execution by American, Japanese, and Taiwanese organizational culture is included. However, this study has three limitations: limited survey questions, limited national cultures, and potential bias on data sources. Therefore, it is recommended to expand the study to more national cultures and increase the sampling from the original countries if possible for future research.

Appendix A: Sample Consent Form (English)

Benedictine University
5700 College Road, Lisle, IL 60532
INFORMED CONSENT FORM FOR STUDY ON THE STUDY OF THE EFFECTS ON TOTAL QUALITY MANAGEMENT, NATIONAL CULTURE, AND ORGANIZATION SUSTAINABILITY

I have been informed that this study involves research that will be conducted by Ms. Chiung-Wen Yeh, a student in the Organizational Development program of Benedictine University. I understand that this project is designed to study the correlations among soft total quality management, national culture, and organization sustainability.

I have been informed that I may refuse to participate or withdraw from this study at any time without any penalty or failure of classes that I am attending. I understand that my identity as a participant in this study will be kept in strict confidence and that no information that identifies me in any way will be released without my separate written approval. I am aware that all information that identifies me will be protected to the limits allowed by law.

I am aware that although I may not directly benefit from this study, my participation in this project may benefit people who want to know how soft total quality management influences organization sustainability under different cultural backgrounds. My opinions are critical and important for further related study.

If I have any questions about this project or my participation in this study, I understand that at the end of the study I may request a summary of results or additional information about the study from Ms. Chiung-Wen Yeh by e-mail to (Chiung-Wen_Yeh@ben.edu).

I have read this form and understand what it says. I am 20 years or older and voluntarily agree to participate in this research project.

_____ _____
Participant's Signature Date

_____ _____
Researcher's Signature Date

Appendix B: Cover Letter (English)

Greetings,

Thank you for volunteering to participate in this study. Your input to this study is greatly appreciated.

The purpose of this study is to understand the correlations among soft total quality management, national culture, and organization sustainability.

The results will be shown only as aggregated totals or as trends. No names are requested or should be written anywhere on this survey. Your participation is voluntary and anonymous. Therefore, you have the right to withdraw your questionnaire response if you are not comfortable during or after responding to questions. Both identification of personal and organizational confidentiality will be protected in all reporting procedures.

Thank you for your time and cooperation!

☐ I have read this form and understand what it says. I am 20 years or older and voluntarily agree to participate in this research project. (Please check the box to start the survey)

Appendix C: Soft TQM vs. Organization Sustainability Relationships Questionnaire (English)

My organization is:
☐ Taiwanese company ☐ Japanese company ☐ American company

The following statements represent possible conditions about the company you are currently working for. Please respond to each of the following statements by marking 1 for strongly disagree, 2 for disagree, 3 for somewhat disagree, 4 for somewhat agree, 5 for agree, or 6 for strongly agree.

Please response to every statement.

(a) Leadership

1. Top management shares similar beliefs about the future direction of this company.
2. Top management pursues long-term business success.
3. Top management anticipates change and makes plans to accommodate it.
4. Top management actively participates in quality and improvement process activities.
5. Top management focuses on quality rather than yields.
6. Top management empowers employees to take necessary action on their own.
7. Employees have the opportunity to share in and are encouraged to help the organization implement change.
8. Managers and supervisors understand how to motivate employees and encourage them to perform at their highest levels.

(b) Employee Fulfillment

1. I like my job because I'm doing what I want to do.
2. Employees in this company are dedicated to their jobs.
3. Our company improves working conditions in order to recognize employees' effort.
4. Our company has a salary promotion scheme for encouraging employee participation in quality improvement.
5. Position promotions are based on work quality in our company.
6. Employees' rewards and penalties are clear.

(c) Employee Involvement

1. Employees have the opportunity to suggest changes or modifications to existing processes.
2. Employees are actively involved in improving products, services, and processes.
3. Most employees' suggestions are implemented after an evaluation.
4. Employees are very committed to the success of our company.
5. Employees are held responsible for the output of their process.
6. Employees are encouraged to fix problems they find.
7. Our company has cross-functional teams.

(d) Training and Education

1. Managers and supervisors ensure that all employees receive training that helps them understand how and why the organization does what it does.
2. Employees in this organization understand the basic processes used to create our products and services.
3. Training in specific work skills (technical and vocational) is given to employees throughout the company.
4. Hourly employees in our company can receive appropriate training.
5. Employees are encouraged to accept education and training in our company.
6. Resources are available for employee education and training in our company.
7. Top management has established an environment that encourages continuous education.
8. Employees are regarded as valuable, long-term resources worthy of receiving education and training throughout their careers.

(e) Strategic Quality Policy

1. Our company has a clear long-term vision statement.
2. Our company has an effective quality improvement plan.
3. Quality goals and policy are well communicated to the employees within the company.
4. The processes for designing new products and services in this organization ensure quality.
5. Employees involved in different processes know how to use statistical controlling methods to evaluate their processes.

6. In our organization, numerical quotas are not the only, nor the most important, measure of an employee's performance.
7. Our company has a career roadmap for employees.
8. Our company encourages continual study and improvement of all of its products, services, and processes.

(f) Customer Focus

1. Our company has been customer focused for a long time, and customer satisfaction is considered in our company's strategic plan.
2. Managers and supervisors encourage activities that improve customer satisfaction.
3. Satisfying our customers and meeting their expectations are the most important things we do.
4. Our company conducts customer satisfaction surveys to collect complaints and opinions from customers.
5. Quality-related customer complaints are treated with top priority.
6. Our company always conducts market research in order to collect information for improving our products.

The following statements represent possible feelings about the company you are currently working for. Please respond to each of the following statements by marking 1 for strongly disagree, 2 for disagree, 3 for somewhat disagree, 4 for somewhat agree, 5 for agree, or 6 for strongly agree.

Please response to every statement.

(g) Organizational Identification

1. I am proud to be an employee of my current company.
2. I talk up my company to my friends as a great company to work for.
3. I have warm feelings toward my company as a place to work.
4. I feel that my company cares about me.
5. I find that my values and the values of my company are very similar.
6. I really care about the fate of my company.

(h) Employee Commitment

1. I would be very happy to spend the rest of my career with this company.

2. I do feel a strong sense of "belonging" to my company.
3. Right now, staying with my company is a matter of necessity as much as desire.
4. One of the few negative consequences of leaving this company would be the scarcity of available alternatives.
5. I do feel an obligation to remain with my current employer.
6. Even if it were to my advantage, I do not feel it would be right to leave my company now.

(i) Employability

1. During the past year, I was, in general, competent to perform my work accurately and with few mistakes.
2. During the past year, I was, in general, competent to make prompt decisions with respect to my approach to work.
3. I consider myself competent to provide information on my work in a way that is comprehensible.
4. During the past year, I was, in general, competent to carry out my work independently.
5. I consider myself competent to be of practical assistance to colleagues with questions about the approach to work.
6. I consider myself competent to weigh the "pros" and "cons" of particular decisions on working methods, materials, and techniques in my job domain.

(j) Background

1. What is your job function:
   ( ) Operation
   ( ) Sales and service
   ( ) Financial
   ( ) Administration
   ( ) Others _____ (please specify)

2. What is your position in the organization:
   ( ) Executive / Senior manager
   ( ) Manager (2^{nd} level or above)
   ( ) Supervisor (1^{st} level)
   ( ) Non-supervisory
3. How long have you been employed by this organization:
   ( ) < 1 year
   ( ) 1–3 years

( ) 4–6 years
( ) 7–9 years
( ) 10 years or above

4. How many employees work for your company:
( ) < 30 employees
( ) 30–50 employees
( ) 51–200 employees
( ) > 200 employees
5. As far as you know, did the company you work for make a profit in each of the past three years?
( ) Yes
( ) No
( ) Don't know
6. Do you think the company you work for has sustained competitive advantage in the industry?
( ) Yes
( ) No
( ) Don't know
7. The company you work for belongs to what industry:
( ) Technology
( ) Manufacturing
( ) Service
( ) Finance
( ) Import/Export commerce industry
( ) Others _____ (please specify)

Appendix D: Sample Consent Form (Chinese)

問卷填寫同意書 樣本

我被告知我所參與的這個研究計畫是由 Benedictine University, Organizational Development program 的學生 Chiung-Wen Yeh 小姐所進行。我了解這個計畫的設計在於探討不同的國家文化下，人本全面品質管理與組織永續經營的相互關係。

我被告知我可以在任何時間拒絕或退出這個研究計畫，而不會受到任何的處罰或喪失任何既有權益。我知道在這研究中，我的個人身分以及任何可以辨識我身分的資訊會受到嚴密的保護，除非另外經過我的書面同意，否則這些資訊將不會被公開。我知道所有可以辨識我的有關的資料都會受到法律的保護。

我了解雖然我參予這個研究計畫不能得到一些直接的利益，但這個研究可能有益於那些想要了解不同的國家文化下，人本全面品質管理與組織永續經營的相互關係的人們。我的意見對未來的研究相當的重要。

假如我對於這個計畫或參與這個研究計畫有任何問題，我知道在研究結束後我可以用電子郵件 (Chiung-Wen_Yeh@ben.edu) 方式聯絡 Chiung-Wen Yeh 小姐要求研究結果的摘要或一些有關這研究的資訊。

我已閱讀並了解這文件的說明。我已經年滿 20 歲而且是志願同意來參與這個研究計畫。.

_____ _____

參與者簽名 日期

_____ _____

研究者簽名 日期

Appendix E: Cover Letter (Chinese)

問卷填寫同意書

您好，

感謝您協助我們進行這份問卷調查。這份問卷主要是想了解在不同的國家文化下，人本全面品質管理與組織永續經營的相互關係。

我們非常需要你寶貴的意見，你所提供的任何訊息僅供學術研究之用。您不用在問卷中留下您的姓名，所有問卷回收後，將直接由研究者進行分析。任何您和您的公司資料在這研究的過程中或結果呈現時都將受到嚴密保護，除了研究者之外，任何人都不會看到您各別的問卷結果，請你放心填答。

參與本問卷調查，爲自願性與無記名的方式進行，在填寫問卷過程中，你如有感到不舒服，你有權力隨時放棄參與本研究調查。本研究屬於學術性研究，因此沒有所謂的對與錯，只有您自己的看法。請您務必回答所有的問題。

本研究能否順利完成，仰賴您的支持與協助，懇請您撥冗協助完成問卷填寫，再次感謝您熱誠的幫忙！

☐ 我已閱讀並了解這文件的說明。我已經年滿 20 歲而且是志願同意來參與這個研究計畫。（請勾選前方空格開始正式問卷）

Appendix F: Soft TQM vs. Organization Sustainability Relationships Questionnaire (Chinese)

人本全面品質管理與組織永續經營關係研究調查

我目前工作的公司爲:

☐ 台灣本土公司　☐ 日商台灣分公司　☐ 美商台灣分公司

以下問句有關您認爲目前任職公司的現況，請就您個人的看法，勾選同意程度:
1. 非常不同意 2. 不同意 3. 有點不同意 4. 有點同意 5. 同意 6. 非常同意

請回答每一題。

(a) 領導風格

9. 公司高層們對公司未來走向的看法是接近的。
10. 管理階層追求商場上長遠的成功。
11. 管理階層能預測環境變化而且能制訂出相對應的辦法。
12. 管理階層積極的參與品質或流程改進的事務。
13. 高階主管重視品質勝於利潤。
14. 管理階層授權員工自行在工作上採取必要的措施。
15. 管理階層允許員工分享個人看法並且鼓勵他們協助組織變革。
16. 經理或中階主管知道如何激勵員工，並鼓勵他們作出最好的表現。

(b) 員工自我達成

7. 我喜歡我的工作因爲我目前的工作就是我想做的。
8. 公司裡的員工投身奉獻於他們的工作中。
9. 爲了表彰員工的努力，我們公司改善了工作環境的條件。
10. 爲了鼓勵員工參與品質改善，我們公司有薪資獎勵方案。
11. 我們公司的升遷是依據工作成果的品質而定。
12. 在我們公司裡，員工的獎懲辦法很清楚。

(c) 員工參與

8. 員工有機會去更改或修正現有的工作流程。
9. 員工積極參與改進產品、服務或工作流程的事務。
10. 大部分員工的建議在評估後會被執行。
11. 員工被認爲是公司成功的要素。
12. 員工要對他們做出來的成果負責。
13. 公司鼓勵員工修正他們所發現的問題。
14. 我們公司有由不同部門員工組成的工作小組。

(d) 教育訓練

9. 經理與中階主管確保員工都接受到能使他們學會並理解公司目前工作方式的訓練。
10. 公司員工了解公司生產或服務的基本流程。
11. 全體員工都接受了某些工作相關的技職訓練。
12. 兼職員工也受到了適當的訓練。
13. 公司鼓勵員工接受教育訓練。
14. 公司具備足夠的教育訓練資源。
15. 高階主管建立了一個良好的持續學習環境。
16. 員工被公司視爲是有價值的長期資源，並值得在他們的工作生涯中持續投注資源進行教育訓練。

(e) 策略性品質政策

9. 我們公司有清楚的願景。
10. 我們公司有著有效的品質改進計畫。
11. 公司的品質目標與政策充分的傳達給員工。
12. 我們公司在設計新產品或服務時會考量到品質。
13. 參與不同作業流程的員工知道如何使用統計方法去評量他們的工作流程。
14. 在我們公司組織裡，數量不是唯一，也不是最重要的衡量員工績效方式。
15. 我們公司有爲員工設計職場生涯規劃。
16. 我們公司鼓勵大家持續學習和改進公司產品、服務和作業流程。

(f) 顧客導向

7. 我們公司長時間以來一直以客戶爲導向，公司政策計畫會考量到客戶滿意度。
8. 經理或中階主管鼓勵提高客戶滿意度的行爲。
9. 讓客戶滿意和達成客戶的要求是我們最重要的工作。
10. 我們公司執行客戶滿意度調查來取得客戶抱怨和意見。
11. 我們把品質相關的客戶抱怨意見做爲第一優先處理。
12. 我們公司持續進行市場研究來收集資訊以改進公司產品。

以下句子是有關您對目前任職公司的觀感。請就您個人的看法，勾選同意程度:
2. 非常不同意 2. 不同意 3. 有點不同意 4. 有點同意 5. 同意 6. 非常同意

請回答每一題。

(g) 組織認同

1. 我榮幸成爲我們公司的員工。
2. 我在和朋友談話中,會提起我在一家很好的公司工作。
3. 我覺得到我們公司是一個很溫馨的工作場所。
4. 我覺得我們公司會關心我。
5. 我發現我的價值觀與公司的價值觀非常相似。
6. 我真的很在乎我們公司的命運（前途）。

(h) 員工承諾

7. 我很樂意在我目前的公司工作直到我退休。
8. 我對公司有強烈的歸屬感。
9. 我目前留在這家公司一半是爲了經濟上的需要，另一半是因爲自己想留。
10. 離開這家公司的缺點之一，是幾乎沒有其他工作機會讓我選擇。
11. 我覺得我有道義應該要留下來幫公司的忙。
12. 即使對我有利，我也不覺得現在離開我目前的公司是對的。

(i) 員工適性

7. 在過去一年中，一般來說我有能力正確完成我的工作，而且我很少犯錯。
8. 在過去一年中，一般來說我有能力在我工作的範圍內快速做出決定
9. 我認爲我有能力全面且正確提供關於我份內工作的相關資訊
10. 在過去一年中，一般來說我有能力獨力完成我的工作
11. 我認爲我有能力對同事工作上的問題提供有用的幫助
12. 我認爲我有能力去評估分析我工作領域中關於工作方法、材料或技術上個別特定決定的優缺點

(j) 背景問題

8. 您的工作單位屬於:
   ( )作業性質
   ( )業務或服務性質
   ( )財務性質
   ( )一般行政
   ( )其他 _____ (請敘述)

9. 您在公司內的職位是:
   ( )高層主管
   ( )經理
   ( )主任 (基層主管)
   ( )職員

10. 您在目前這家公司服務時間:
    ( )小於一年
    ( )一至三年
    ( )四至六年
    ( )七至九年
    ( )十年及以上

11. 您目前服務的公司有多少員工:
    ( )小於三十人
    ( )三十到五十人
    ( )五十一到兩百人
    ( )兩百人以上

12. 就您所知，您所服務的公司在過去三年是否持續獲利?

( )是
( )否
( )不知道

13. 您個人覺得目前工作的公司在業界是否具有長期競爭的能力?
( )是
( )否
( )不知道

14. 您公司的產業類別爲:
( ) 科技業
( ) 製造業
( ) 服務業
( ) 金融業
( ) 進出口貿易
( ) 其他 _____ (請敘述)

Appendix G: Sample Consent Form (Japanese)

同意書のサンプル

人本の統合品質管理、国の文化および構成持続可能性に対する影響に関する研究に関する研究

私は、この研究が Chiung-Wen Yeh さんによって行なわれる研究を含んでいると通知されました。私は、このプロジェクトが統合品質管理、国の文化および構成維持能力中の相関性を研究するように計画されていると理解します。

私が出席されるというクラスをしそこなうのを拒否するかもしれないと知らされました。 私は、この研究の関係者としての私のアイデンティティが極秘にされて、私を特定する情報が、全く私の別の文書による承諾なしで何らかの方法で発表されないのを理解しています。 私は、私を特定するすべての情報が、法で許容された限界に保護されるのを意識しています。

私は、私が直接この研究の利益を得ないかもしれませんが、このプロジェクトへの私の参加が総合的品質管理が異なった文化的背景でどのように組織持続性に影響を及ぼすかを知りたがっている人のためになるかもしれないのを意識しています。

研究へのこのプロジェクトか私の参加に関する質問があるなら、私は、研究の端のときに Chiung-Wen Yeh さんから(Chiung-Wen_Yeh@ben.edu)へのメールで研究に関する結果か追加情報の概要を要求するかもしれないのを理解しています。

私は、この書式を読んで、それが何を示すかを理解しています。 私は、20 歳以上であり、この研究計画に参加するのに自発的に同意します。

_____ _____

関係者の署名 日付

_____ _____

研究者の署名 日付

付録 B: 表文(イギリスの)

Appendix H: Cover Letter (Japanese)

こんにちは,

この研究に参加するさってありがとうございます。

相関関係が管理、国民文化、および組織持続性を合計するのを理解するのにこの研究の目的は設計されています。

結果は集められた合計として、または、傾向として示されるだけでしょう。名前を全く要求するべきではありませんし、またこの調査で何処にも書くべきではありません。

あなたの参加は、自発的であって、匿名です。あなたにはあなたのアンケート応答を引き下がらせる権利があります。 個人的の識別と組織的な秘密性の両方がすべての報告手順で保護されるでしょう。

時間と会社をありがとうございます!

☐ 私は、この書式を読んで、それが何を示すかを理解しています。 私は、20歳以上であり、この研究計画に参加するのに自発的に同意します。 (調査を始めるために箱をチェックしてください)

Appendix I: Soft TQM vs. Organization Sustainability Relationships Questionnaire (Japanese)

人本の統合品質管理対組織持続性関係アンケート

私の会社は:
☐ 台湾の会社　　☐ 日本の会社　　☐ アメリカの会社

あなたが現在働いている会社に関する可能な状態を表す声明に従います。以下を作ることによって、それぞれの以下の声明への応答を喜ばせます。
1、強く意見を異に
2、意見を異に
3、いくらか意見を異、
4、いくらか同意して、
5、同意して
6、強く同意して

あらゆる声明への応答はそうしてください。

(a) リーダーシップ
1. 管理者は同社の将来の方向に関して同様の信念を共有します。
2. 管理者は長期事業成功を追求します。
3. 管理者は、変化を予期して、それをする計画を作ります。
4. 管理者は活発に品質と改良プロセス活動に参加します。
5. 管理者は利回りよりむしろ品質に焦点を合わせます。
6. 管理者は、従業員がそれら自身のへの必要な行動を取るのに権限を与えます。
7. 従業員は、分担する機会を持って、組織が変化を実行するのを助けるよう奨励されます。
8. マネージャーと監督は、従業員に動機づけする方法を理解して、彼らが彼らの最高レベルで行うのを奨励します。

(b) 従業員実現

1. 私がしたいと思うことをしているので、私は仕事が好きです。
2. 同社の従業員は彼らの仕事に専念します。
3. 弊社は、従業員の取り組みを認識するために待遇を改善します。
4. 弊社には、品質改良における従業員参加を奨励することの給料販売促進計画があります。
5. 位置の販売促進は弊社で仕事品質に基づいています。
6. 従業員の報酬と罰則は明確です。

(c) 従業員の参画

1. 従業員には、既存のプロセスへの変化か変更を示す機会があります。
2. 従業員には、既存のプロセスへの変化か変更を示す機会があります。
3. ほとんどの従業員の提案は評価の後に実行されます。
4. 従業員は弊社の成功に非常にがけます。
5. 過程の出力は従業員の責任を負わせられます。
6. 従業員は、彼らが見つける問題を修正する督励です。
7. 弊社には、クロスファンクショナルチームがあります。

(d) トレーニングと教育

1. マネージャと監督は、全社員が彼らが、組織がどのようにすることをするかを理解するのを助けるトレーニングを受けるのを保証します。
2. この組織の従業員は、製品/サービスを作成していたのプロセスを理解しています。
3. 会社中で特定の作業熟練度(技術的で職業上の)のトレーニングを従業員に与えます。
4. 弊社の時給労働者は適切なトレーニングを受けることができます。
5. 従業員が弊社の教育訓練を受け入れるよう奨励されます。
6. 弊社の人材教育とトレーニングにリソース利用可能です。
7. 管理者は連続した教育を奨励する環境を確立しました。
8. 従業員はそれらのキャリアの間中教育訓練を受けるのにふさわしい長期のリソースと見なされます。

(e) 戦略の品質方針

1. 弊社には、明確な長期ビジョン声明があります。
2. 弊社には、有効な品質改良プランがあります。
3. また、上質の目標と政策は会社の中で従業員に伝えられます。

4. この組織における新しい製品/サービスを設計するための過程は品質を確実にします。
5. 異なった過程にかかわる従業員はそれらの過程を評価するための統計的な制御方法を使用する方法を知っています。
6. 私たちの組織では、数字の割当ては唯一、最も重要であるのが従業員の実績を測定するということではありません。
7. 弊社には、従業員のためのキャリアプランがあります。
8. 弊社はすべての製品、サービス、およびプロセスの絶え間ない研究と改良を奨励します。

(f) 顧客中心

1. 弊社は長い間集中している顧客です、顧客満足が弊社の戦略的計画で考えられています。
2. マネージャと管理者は顧客満足を改良する活動を奨励します。
3. 客を満足させて、彼らの期待に合うのは、私たちがする中で最も重要なことです。
4. 弊社は、顧客から苦情/意見を集めるために顧客満足調査を指導します。
5. 品質関連の顧客の苦情は最優先で扱われます。
6. 弊社は、私たちの製品を改良するための情報を集めるためにいつも市場調査を行います。

あなたが現在働いている会社に関する可能な感じを表す声明に従います。 以下を作ることによって、それぞれの以下の声明への応答を喜ばせます。1、強く意見を異に
2、意見を異に
3、いくらか意見を異、
4、いくらか同意して、
5、同意して
6、強く同意して

あらゆる声明への応答はそうしてください。

(g) 組織への一体化

1. 私は私の現在の会社の従業員であることを誇りに思っています。
2. 私は働いている偉大な会社として会社について友人に誇り。
3. 私は働く場所として私の会社に向かって気持ちを持っています。
4. 私は、私の会社が私を心配すると感じています。

5. 私は、私の価値と私の会社の価値が非常に同様であることがわかりました。
6. 私は本当に私の会社の未來を心配します。

(h) 従業員関与

1. 同社と私のキャリアの残りを費やすでしょう。
2. 私は私の会社への「属します」という強い感覚を感じます。
3. たった今、私の会社に滞在するのは、願望して必要な問題です。
4. 同社を出るわずかな否定的な結果の 1 つは有効な代替案への不足でしょう。
5. 私は私の現在の雇い主と共に残る義務を感じます。
6. 私の利点にそれがあったとしても、私は、今私の会社をやめるのが正しいと感じないでしょうに。

(i) 雇用適性

1. 昨年、一般に、私は正確とわずかな誤りで仕事をする。
2. 昨年、一般に、私は働いているという私のアプローチに関する速断を取るのにおいて有能でした。
3. 私は、自分が分かりやすい方法で私の仕事の情報を提供する。
4. 昨年、一般に、私は独自に私の仕事を行うのにおいて有能でした。
5. 私は、自分が扱うアプローチに関する質問をもっている同僚に対する実用的な支援で有能であると考えています。
6. 私は、仕事のドメインで働く方法、材料、およびテクニックで特定の決定について自分が重みを加えるのにおいて有能であると考えて、「プロ」と「まやかし」を解決します。

(j) 背景問題

1. あなたの職務権限は何ですか:
   ( ) 管理
   ( ) 販売およびサービスの
   ( ) 金融
   ( ) 行政職
   ( ) 他のもの_____(説明してください)

2. あなたの職:

( ) 幹部社員/上級管理者
( ) マネージャ
( ) スーパーバイザー
( ) 非管理職です。

3. この組織によって使われた時間の長さ:
( ) 1 年
( ) 1-3 年
( ) 4-6 年
( ) 7-9 年
( ) 10 年以上

4. あなたが働いている会社における従業員数:
( ) 30 人の従業員
( ) 30- 50 の従業員
( ) 51--200 人の従業員
( ) 200 人の従業員

5. ご承知のとおり、あなたが働いている会社は過去 3 年間で利益が上がり続けますか?
( ) はい、
( ) ない、
( ) 知りません です。

6. あなたは、あなたが働いている会社が産業で競争力において有利な立場を被ったと思いますか?
( ) はい、
( ) ない、
( ) 知りません です。

7. あなたが働いている会社性質は:
( ) 技術産業
( ) 製造業
( ) サービス業
( ) 金融業界
( ) 輸入/輸出
( ) 他のもの_____ (説明してください)

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