

PSYCHOLOGICAL FACTORS AFFECTING THE SUCCESSFUL IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT INITIATIVES



Kate Andrews, Ph.D.
University of the Rockies, USA

ABSTRACT

The tendency to react to information may be natural but is it wise? Do we want to react or to act in response to information from our employees? Reaction often stems from using the information or data as it is received rather than using the received information as a basis for investigating aspects that are not immediately evident. For example, if a manager receives information on decreased sales for a week, investigation should take place on if the decrease is of a statistical significance and is associated with effects from other subcomponents of the system. Obtaining information that does not have a microfocus but a justifiable and complete macrofocus is important to management of a systemic organization. In examining the complete supply chain, there are numerous opportunities to utilize statistical process control (SPC) in order to determine appropriate actions to changes in process output rather than reactions to discrete and momentary information. Examples of using SPC can be seen throughout the supply chain; including feed suppliers, veterinarians, farm producers, packing plants, distributors, markets, consumers, waste disposal, and recycling. Adherence to government regulations and adequate human resource activities are additional processes benefiting from the use of SPC.

However, can the theory and concepts of SPC and process monitoring used in other countries be directly implemented in Romania? Using lessons from America's implementation of Japanese implementation of Deming's Total Quality, Lean Manufacturing, and Kaizen, the answer found is "No, the concepts must be implemented with consideration of psychological attitudes and beliefs resident within a culture."

The psychological factors affecting implementation of quality theory and concepts are the essence of this paper along with the cultural influences affecting national implementation of quality programs. The factors discussed include focus on business goals, embracement of change, and openness to innovation. Suggestions are provided on approaches to successful psychological implementation of quality management within the framework of Romanian culture.

KEY WORDS: psychological factors, culture, implementation of quality personnel

INTRODUCTION

Total Quality Management (TQM) principles undergird the management foundation that by examining process stability we can tell when changes are necessary and monitor quality to ensure consistent delivery and product. However, is it enough to examine only the mechanical and technical processes? What about the psychological processes involved within an organizational culture? How do they affect the implementation of cultural changes? Can we look at lessons learned about psychological process in implementation attempts of TQM in other countries to learn suggestions for implementation in Romania?

Although TQM principles are associated often with being developed and used in Japan, they were initiated much earlier in the United States. Frederick Taylor, in the late 1800s, first brought principles of scientific management to the forefront of business practices in Philadelphia. Later manufacturing efficient was enhanced by Henry Ford and Karl Benz in the automotive industries in the U.S. and Germany. However, ensuring the control of quality in manufacturing was initiated by Shewhart and then Deming in the U.S. Deming was very successful in implementing quality control through statistical process practices during World War II.

After the war, Japan nationally sought Shewhart, Deming, and Juran to bring life back to the economy in Japan through the principles of statistical process control and TQM when the U.S. was no longer interested. Deming became the primary motivator in Japan's implementation of TQM principles during the 1950s and 1960s. The Japanese implementation of TQM was seen as very successful when Americans finally looked to see why they were increasingly making giant inroads into previously technological territory held by the United States. When Americans saw success in Japan being attributed to TQM, they then wanted to lift the implementation tactics from Japan back to America. Back to America are the words used because Deming first tried to implement the principles of TQM in America but after being rejected over and over so he pursued a favorable environment and it happened to be Japan.

The totality of Deming's principles is sometimes forgotten in the pursuit of implementation of statistical process control. Although Deming was concerned greatly with the ability to ensure quality through the consistency of processes, he had other principles he knew were just as important. His TQM foundation was composed of 14 points.

Deming's 14 points can be divided into two categories (see Figure 1). The points most often associated with Deming in manufacturing and supply chain TQM implementation are often the technical and mechanical process points. These are the measurement points and improvement of the material processes. The other category is associated with psychological components of human behavior associated with management processes.

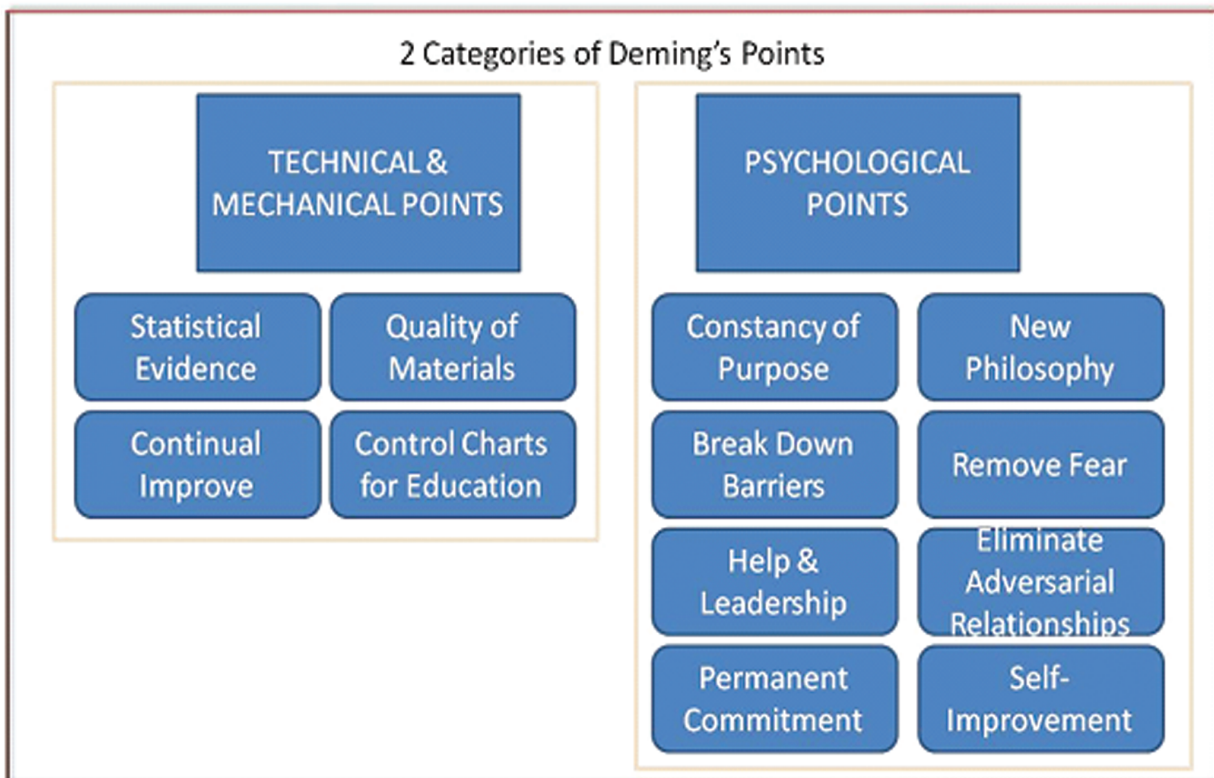


Figure 1. Deming's Points - 2 Categories

The psychological components relate to a human's purpose, philosophy, actions, barriers to success, fears, leadership, self-improvement, and commitment. Other attempts at separating factors or principles of TQM have termed the psychological points "soft" and technical and mechanical points "hard." The "soft" TQM elements were found to be more essential or provide more impact on performance than the "hard" elements (Jung & Hong, 2008; Thiagarajan & Zairi, 1997). Similarly, the Malcolm Baldrige National Quality Award defines seven factors required for a firm's excellence in performance as leadership, people management, customer focus, planning, process management, and information and analysis. Only process management is defined as a "hard" element. The importance of "soft" TQM factors was also borne out in research in Greece (Fotopoulos & Psomas, 2008). Not only Deming's 14 points but Juran's quality trilogy, Crosby's absolutes of quality management, Garvin's quality dimensions, and Ishikawa's cause and effect, as well as Feigenbaum's steps and Taguchi's DOE have "soft" and "hard" components.

It is in the second category we find differences in Romania and American and Japanese cultural needs. These distinctions between Japanese, American, and Romanian culture affecting implementation of quality theory and concepts are the essence of this paper. Hofstede (1992) warned us not only values . . . but even theories, are products of culturally determined socialization. This should make us modest when we try to transfer, for example, Western types of . . . management . . . to people . . . Not only the tools but even the categories available for thinking may be unfit for the other environment (p. 152). Differences discussed include focus on business goals, embracement of change, and openness to innovation. Suggestions are provided on approaches to successful psychological implementation of quality management within the framework of Romanian culture.



I. SYSTEMIC VIEW

The tendency to react to information may be natural but is it wise? Do we want to react or to act in response to information from our employees? Reaction often stems from using the information or data as it is received rather than using the received information as a basis for investigating aspects that are not immediately evident. For example, if a manager receives information on decreased sales for a week, investigation should take place to determine if the decrease is of a statistical significance and is associated with effects from other subcomponents of the system. The systemic view is often discussed in relation to the evaluation and measurement of processes. However, the systemic view is also necessary as we look at the entire organization where we want a total quality program implemented. We must look at the whole, the technology, the mechanical processes, cultural attributions, and personality components.

Dividing Deming's points into two categories does not indicate a more or less importance level of either the technical/mechanical process improvements or the psychological factors. Obtaining information that does not have a microfocus but a justifiable and complete macrofocus is important to management of a systemic organization. In examining the complete supply chain, there are numerous opportunities to utilize statistical process control (SPC) in order to determine appropriate actions to changes in process output rather than reactions to discrete and momentary information. SPC can be used to monitor and evaluate processes with feed suppliers, veterinarians, farm producers, packing plants, distributors, markets, consumers, waste disposal, and recycling. Adherence to government regulations and adequate human resource activities are additional processes benefiting from the use of SPC.

It is important to realize that the technical and mechanical quality factors are alone not enough for the most successful implementation of quality change. This is evidenced by Fortune 100 companies who had investments of \$1 billion each over 15-years in organizational change initiatives showed only a 30% improvement in bottom-line results and only 50% resulted in an increase in market share price (Parish, Cadwallader, & Busch, 1997). In another study, Sim and Rogers (2009) found the reasons for a unsuccessful implementation of a quality management program in an organization whose management was firmly committed to the implementation stemmed from employees not feeling valued through the implementation process and that "100 per cent of the hourly male employees disagreed that 'The Company considers the employees as the most important asset and will do what ever they can to keep their people'" (p. 37). Another study by Parish, Cadwallader, and Busch (2008) found affective commitment due to employee fit with vision and manager and employee relationship quality directly related positively to success of continuous improvement programs. Finally, success was directly related positively to performance increases.

Therefore, it is seen that the psychological factors are important and as explanations show in Chapter 2, cultural differences determine national status of these psychological factors in importance.

2. RESEARCH ON NATIONAL CULTURAL DIFFERENCES

Youssef and Zairi (1995) showed different factors have various importance levels in various cultures. Factors found to have similar importance in cultures are management commitment, customer satisfaction, and SPC. However, through their benchmarking exercise, they concluded substantial differences were found between the USA, United Kingdom, and the East in the importance of a cultural change, goal setting, recognition programs, quality circles. A Friedman statistical test (see Figure 2) reveals the rankings are significantly different across the countries.

Much research has been concentrated on quality implementation programs in Japan and the United States with later research in Western Europe. However, there is little published research available in developing countries or those countries emerging into the European Union and other global changes. In Russia, results of research in manufacturing industries by Khoo and Tan (2002) indicates 34 critical factors for the implementation of total quality. Again, these factors can be divided easily into a “soft” category: leadership, quality planning, employee development and satisfaction, processes, and customer satisfaction and a “hard” category: resources, technology. Their research indicated the traditional, autocratic, and bureaucratic national cultural norms of working were counter to providing the resources necessary for more flexible structures required for a quality organization.

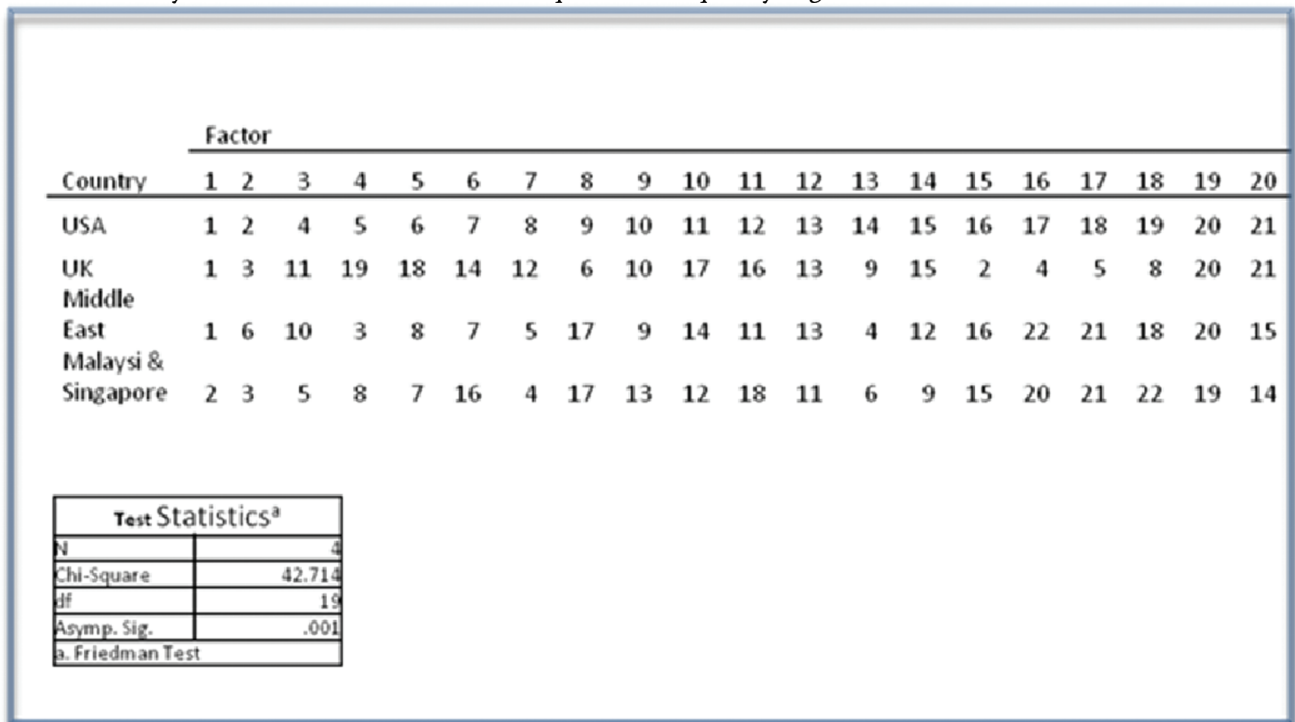


Figure 2. Friedman Test of Critical Success Factors Statistical test with data from (Youssef & Zairi, 1995)

National culture was defined by Hofstede (2001) as “the collective programming of the mind that distinguishes the members of one group or category of people from another” (p. 9). Hofstede purported that national cul-

2.1 Materialistic focus

A materialistic focus was studied in 12 countries by Ger and Beck (1994). Interestingly out of the 12 countries, Romania registered the highest level of materialistic focus as supported by both quantitative and qualitative data even ahead of the United States and Germany. Romanians were also the least likely to see materialism as a weakness. This may relate to the theory of terror management which states human motivation to be inherently tied to an awareness of vulnerability. The nuances found with Ger and Beck’s study reveal very interesting details where Romanians also stressed more utilitarian aspects of life or instrumental materialism and believed almost everyone in the Romanian culture was becoming more materialistic. Romanians more than Western Europeans, Americans, and Turks reported materials as an empowering factor and a self-enhancing expression of control and freedom. Interestingly, all other European countries, besides Germany, were actually nonmaterialistic.

2.2 Cognitive processing and attribution of causation

Researchers have often strived to understand the dichotomy of cognitive style between the West's analytic style and the East's intuitive style (Allinson & Hayes, 2000). An intuitive/analytic style relates to what information is considered foremost in making decisions. With the more intuitive style of the East, impressions and patterns are used more than in the West where physical realities, facts, and details are accentuated. This dimension is similar to how causation is determined. Perception of causation in the Eastern tradition attributes the source or stimulation of action to environmental from sensations or data while the Western tradition attributes causation to responses to earlier events based upon Greek historical changes. This Western perception leads to abstract terms such as "productivity, leadership style, and morale, which are linked in a logical and sequential chain of connections. . . [Wherein Asian' perception generates] concrete concepts of group consensus, nation, and security" (Doktor, 1990). Because Poland has a similar history in economic and governmental realms, it behooves one to examine the influences found to affect its social organization and resulting mechanisms developed for maintaining control and order within that country. The fatalism exhibited by the Polish people was directly opposed to determinism wherein initiative would have been promoted (Roney, 2000).

2.3 Bribery and a high context culture

Roney (2000) found within Polish traditional influences that semi-legal activities were allowed because they were considered crucial to continuing accepted life styles. She found bribery not only emerging but consuming most activities and the church promoted the collective identify of the people. A high-context culture was also observed in that the meaning of events was translated via implicit communication and was determined to be related to the government's actions to centralize control.



2.4 Mentoring focus

In regard to mentoring in the workplace, Japan, the US and Western Europe differ significantly (Bright, 2004). Western thought sees mentorship as a strategy and Eastern thought utilizes a more relationship, informal approach to mentoring. Mentoring seems to be taken for granted in Japan rather than being a formal program or any type of mentoring training program (Drucker, 1971). Instead of needing a formal designation of mentoring as in the West where these relationships are governed by contract, in Japan relationships are covered by personal bonds where supervisors are accepted as coming within the personal matters of direct reports. Bright (2004) reported a survey found US and Japanese respondents answered a question if supervisors should give personal advice to workers about marriage. Japanese answered positively at a 70% rate while US respondents answered at a 29% rate. Only 5% of Japanese responded that supervisors should not be asked for advice but 60% of the US respondents thought the workers should not ask for advice. Differences in Eastern culture promoting this different mindset have to do with kinship relations where personal bonds can develop between unrelated individuals, concept of vertical relationships with older, more experienced persons, and one-to-one vertical relationships that correspond to Western mentoring relationships (junior and subordinate relationships; Bright, 2004). Bright's research indicated the West's organizational culture that promotes short-termism, mistrust, and suspicion contributes to a different mentoring relationship than Japan and these same factors exist within Romanian culture and create resistance to principles such as breaking down barriers and removal of fear.

2.5 Specific research on Romanian national culture

In order to evaluate Romanian implementation strategies, a look at specific findings regarding Romanian national culture must take place. Specifically, in the following paragraphs research results are explained regarding Romanian job satisfaction, masculine culture, high power distance, individualism, uncertainly avoidance, trust, and strategic planning.

2.5.1 Job satisfaction.

Romania rated statistically significantly lowest in overall job satisfaction of any European country including Czech Republic, Bulgaria, and Estonia (European Foundation, n.d.). In fact, the survey data shows as expected a decline from 1994-1998 and then a recovery in 2001 but followed by the latest data recording further decline in 2001-2004. Gender was not found be a key factor in the ratings. Different than the Czech Republic, Hungary, Estonia, and Western European countries, Romanian increase in age was directly related to a decline in overall job satisfaction.

2.5.2 Masculine culture.

Hofstede's dimensions are often researched in organizational culture where they have been found to directly affect productivity and performance. The masculine/femininity dimension states the more defined separateness that exists between gender roles the more masculine the culture is and the less defined roles the more feminine. In research, Romania, is consistently reported to have a masculine culture (Ali, 2009; Hofstede, 1983). A high masculinity level indicates opposition with TQM success factors of creating a safe and caring environment and realizing the systemic needs of society rather than isolated individual needs (Hofstede, 1983).

2.5.3 High power distance. Power distance refers to the hierarchical organizational status and division of power existing within the organization. A high power distance is associated with preventing critical success factors for TQM implementation of employee empowerment, bottom-up communication very restricted, and team-working because of hierarchical levels of privilege and status (Jones & Seraphim, 2008). Romania scored the highest level of power distance of any European country in research by Wehnert (2009). This agrees with research conducted by Mihut and Lungescu in 2006 where this power distance is the driving force behind Romanian perceived unconditional obedience to supervisors. However, this obedience is often lacking in discipline. High distance from power also is symbolized in the Romanian expectation of inequalities among management, employees, and just people in general. In fact, these inequalities are seen as desirable ("Cross-Cultural Differences, 2010). Structurally, Romanian organizations are seen as much more hierarchical than Western and other EU counterparts (Neculaesei and Tatarusanu, 2008).

2.5.4 Individualism.

Romanians desire to avoid direct conflicts is seen in its collectivist culture as reported in research conducted by Neculaesei and Tatarusanu (2008). Romanians will most often desire little conflict which inhibits creativity. In collectivist cultures, GNP per person is low as in Romania and interest groups dominate political and economic ruling systems (Hofstede, 2001). The low individualism rate found by Hofstede in Romania is supported by later research by Mihut (2006) where the collectivist culture prevents initiative, defeats accomplishing visions, promotes nepotism and continues the prominence of special interests groups. Another result of a strongly collectivist culture is the tendency for societal members to see themselves as victims when something goes "wrong" (Ali, 2009).

2.5.5 Uncertainty avoidance.

Uncertainty avoidance occurs where people feel "threatened by uncertain, unknown, ambiguous or unstructured situations" ("Cross-Cultural Differences", 2010). Hofstede's (1983) research showed Romania with an extremely high level of uncertainty avoidance (90 out of 100) that results in avoidance of risks and the need for strict rules where learning is mechanical and concerned with being "right" and creativity is inhibited and even discouraged. Mihut's (2006) conclusion was even though Romania is rich in ideas; however, the implementation of them is limited due to the high degree of uncertainty avoidance wherein people are risk averse and stop before fully making changes due to creativity and innovation. Romania scored the highest level of power distance of any European country and extremely high level of uncertainty avoidance in research by Wehnert (2009). Uncertainty avoidance is the degree nationals desire clear rules in structure situations rather than unstructured situations.

2.5.6 Level of trust.

Additionally, the need to remove barriers including driving out fear, necessitates a culture of trust. The lack of trust of government, community, and organization permeates society within Romania as substantiated by Pop (2009) who reported continuing pessimistic expectations in the economy. The lack of trust was also illustrated by a longitudinal study conducted by Vlas and Gherghina (2009) where Romania was shown to be the country within the EU with the highest criticism of national political organizations partially due to extended corruption.

2.5.7 Short-term orientation & strategic planning.

Final factors found in Romanian culture notable in this study is its short-term orientation (Neculaesei and Tatarusanu, 2008) and lack of strategic planning (Awilda, 2008). Having a short-term orientation leads to a lack of persistence and concentration on personal safety and stability. The short-term orientation within Romania was found to be prevalent throughout the country in all three regions (Neculaesei and Tatarusanu, 2008). Strategic planning was found in slightly over half of small and medium sized enterprises and in fact 34.10% of the organizations

logical factors can be matched to specific cultural differences but then we must remember Cole's admonition that copying the implementation from one organization to another assumes a complete likeness that invariably does not exist. However, the good news is there are generalities we can use as a basis for change and implementation. A linear progression of change does not address the need for systemic changes. One cannot first address one psychological factor and affect a cultural characteristic without addressing another psychological factor and affecting other cultural characteristics. This is the difference between address mechanical processes and people. Addressing each of the aforementioned research findings concerning Romanian culture in the context of the "soft" principles Deming listed, provides us a basis from which to develop an implementation strategy.

As Deming stated, reducing fear in the workplace is one of the most important aspects to address. As a fear-based culture affects all other realms of the culture and organization. The first and primary need is full management commitment to change with a constancy of purpose. This should be part of the strategic planning process. Not only should 5-10 year goals be set but management together should be encouraged to stop abiding by management by objectives and evaluate processes. Employees must receive the education required, however, in order to provide the information needed to evaluate processes. Managing the processes centers the attention away from individuals, concentrates on the organizational goals, and achieves a means to actually continually improve with long-term change rather than short-term results in putting out fires and actually tampering with processes that cost more in the long-run. This can only be achieved through developing mutual goals that benefit each person in management so they begin to see the overall worthwhile efforts in accomplishing organizational goals. As individual goals are brought in alignment with organizational goals, fear-based culture is addressed as well as individualism. The concept of who is the customer must be changed. A customer can no longer be the end user of a product but to everyone an employee provides information, material, or services. This means the front-line workers are customers of management who provide feedback and resources for them to do their jobs. Management are also customers of the front-line workers for their receive quality reports and suggestions for improvement. A participatory management style may not be immediately, if at all, possible within the Romanian culture for the next decades, but a less autocratic and more inclusive style is possible. This is only possible when the nepotism and bribery are addressed from those who are employed to those who receive contracts. Develop opportunities for people to feel pride in their work-remove discipline and instead institute consistent mutually-beneficial reward system. Employees cannot longer be the cause of problems but the solutions to finding special cases rather than concentrating on common causes. A low power distance that promotes collaborative teamwork may also be years in the distance if at all advisable within Romania. However, the effects of a high power distance can be lessened by actively seeking bottom-up communication, which can only happen as fear is reduced.

whole must also be addressed by providing employees with an environment that is conducive to accomplishing organizational goals through team goals and ultimately through individual efforts. Encourage mistakes! They provide learning opportunities. Perhaps, one of the most effective strategies is to bring knowledge to management so they will be the ones to start modeling the change. This means not only in management practices related to financial concerns but leadership practices related to humanity concerns.

Working within a culture of uncertainty avoidance can be helped by establishing spoken norms of expected behavior of management and employees and holding individuals accountable for actions. Norms exist no matter if they are spoken or not but having spoken norms can provide a basis for certainty change. As higher levels of authority within the company are held to the change practices and expected behaviors, a level of trust in knowing what to expect will be created; this in itself, aids in establishing a higher level of trust. A few more suggestions are to establish short-term goals to "first, pick the low hanging fruit" and develop confidence in the process. As true leadership is developed, fear will decrease, and barriers will be broken down; thus, paving the way for concentration on special causes and continual process improvements. A final word of caution is to be careful not to be caught up in instituting more exhortations centered on adversarial relationships due to slogans and meaningless management practices. Be accepting of the Shewhart Cycle which does not purport we will get change right the first time but that change and improvement are a continual process whereby one must accept errors and mistakes in order to see potential opportunities for change.

2.6 Comparing Romania with other countries

Briefly, Romania is a collectivist culture with a high distance from power, represented by a feminist culture, with a high level of uncertainty avoidance, and a desire for short-term orientation. The United States has an individualistic culture with a low distance from power, represented by a masculine culture, with a low uncertainty avoidance, and a desire for a long-term orientation. Remembering Hofstede's (1992) warning, the natural question is how can one expect management techniques in one country with such an entirely different national culture expect to lift in total from another national culture?



3. CULTURAL DIFFERENCES AFFECTING QUALITY CHANGE

How do these cultural differences directly affect implementation of a full, complete quality organizational culture? Analyzing the global barriers to quality implementation, we find the following: Factor analysis by various researchers have found there are essential barriers that cross national lines to TQM implementation. These researchers have identified the level of these factors to not be the same throughout national cultures (Tanimin & Sebastinelli, 1998; Sebastinaelli & Tamimi, 2003; as cited in Bhat & Rajashekhar, 2009). Therefore, given the aforementioned Romanian national cultural factors found to be essential, is it possible for Romanian management to successfully implement quality programs consisting of the entire basis of both "hard" and "soft" principles?

Can we assume that quality implementations will fail if national or organizational culture is not ideal for the change necessary? Actually, Roney (2000) discovered in Poland where the culture has some similarities with Romania, attribution of causation, masculine, high power distance, and individualism, that although opposing tendencies were present, implementation of quality change were possible on some level. In addition, Jones and Seraphim (2008) examined the implementation of total quality management in a United Arab Emirates that did not have the critical success factors that previously have been identified as being required for TQM implementation but the organization was successful in over 3 year of continuing TQM processes. Difficulties described are similar to many factors associated with Romanian culture (communication top-down difficulties, avoidance of written communication, non-participation, strict following of orders, autocratic and controlling management, management focus on cost, high power distance, and masculine culture-all associated with the psychological factors listed at the beginning of this paper.

4. SUGGESTED IMPLEMENTATION STRATEGIES

It is important to remember that as previous research has shown Romania to be a nation of high-context, individualism, low risk taking, and with a high power distance among other characteristics, that not all companies within Romania or management exhibits the reported factors. However, because a significant portion have the aforementioned culture, the factors reported above will be addressed as though they are needed to be acknowledged and even used in development of quality change implementation processes.

A report generated in 2007 indicates while small and medium size private enterprises in Romania are implementing innovative changes they are mostly focused on new products (34.87%), new technologies (26.99%) while new managerial approaches were reported around 10% and new training at 14.46% (Borres, 2008).

Through studies in small to medium-size enterprises, implementation has to be simple and be synchronized with current methods of work; responsibility must be shared between various departments with the emphasis not in customer satisfaction but in customer delight (Kengpol, 2004). The following section will use the assumption that small wins encourage a learning environment whereby change is more likely to be accepted and then embraced. These small wins "throughout the organization, taken together, can provide useful knowledge about the whole system and promote learning. [However, it is important to recognize that] small process wins are often based on tacit knowledge that is harder for other organizations to copy" (Cole, 2001). This method also agrees with Jones and Seraphim's (2008) analysis through lessons learned from a similar culture of high power distance and masculinity, organizations also need to start with areas of low performance and foster cultural change. Their study found success in a company with a similar national culture as Romania used three criteria to select their implementation strategy "cost of implementation, ease of implementation, and expected return." The priority of these three strategies was determined by various circumstances: financial crisis and low culture modification.