

THE ROLE OF ORGANIZATIONAL CULTURE IN COMMITMENT TO IMPLEMENT TOTAL QUALITY MANAGEMENT (CASE STUDY OF ALGERIAN PUBLIC COMPANIES)

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ABSTRACT

The management in TQM implies that it's a management approach, not just a narrow quality control or quality assurance function. Some principles and practices of TQM may differ among firms and industries, but there is unanimous agreement as to the importance of organizational culture in implementing TQM. Accordingly the objective of the paper is to empirically investigate the relationship between organizational culture and the implementation of TQM. This study limited to public companies in Algeria. The sample of study consisted (107) executives and managers who are working under functional heads. We used convenience sampling in selecting the subjects. The instrument used in the study was a survey questionnaire. The Correlation analysis explained a positive moderate relationship between organizational culture and implementation of TQM ($r=0.580$, $p=0.000$) that is culture of a (Algerian public companies) is positively related to the implementation of TQM.

The study recommended increasing the interest in improving the availability levels of the organizational culture dimensions in general; and place a particular focus on the relatively low level dimensions, and the necessity to take into account realizing coherence among these dimensions in terms of the closeness of the availability levels, and lessening the deviations among these dimensions as well as among the elements of the same one dimension, due to the integrative nature among them. The study further recommended assimilating the organizational culture concept as an administrative concept by the managerial executives in the Algerian public companies, being an important foundation, upon which the success or failure of applying the TQM depends.

Keywords:

organizational culture, Total Quality Management, Algerian public companies.

JEL: M14, L15

INTRODUCTION

The organizational culture or what is known as «the organization values and personality» was not given the natural interest before the second half of the twentieth century. The 1970s era had witnessed an increasing interest in this concern, and culminated in the 1990s. In addition, the attention of the writers and researchers in the field of management and organizational behavior increased in the issue of the organizational culture. They dealt in it through many aspects and dimensions since it is one of the most important factors of the success of the contemporary organizations, and an influential factor in their management, which work throughout the concept of the gradual transference toward the universality and its challenges. Moreover, the organizations are in real need for change and achieving high levels of efficiency and performance in order to enable them continue, compete and excel, and to adjust in conformity with the ambient environmental variables.

The organizational culture plays an important role and occupies a distinguished status in the managerial performance and development, which is deemed characteristic of the modern age. All institutions and departments of both the public and private sectors need it to face the accelerating world events, since the world had turned into a small village connected by the latest communication methods. It made it impossible for any country, organization or department to live in isolation of these changes, because this means their inability to survive before the environmental challenges they face .

Total Quality is a description of the philosophy, culture and attitude of a company that strives to provide customers (both internal and external) with products and services that satisfy their needs. TQM philosophy expect quality in all aspects of the company's operations, with processes being done right the first time and defects and waste eradicated from operations.

For more than four decades after independence the companies in Algeria enjoyed a protected market with virtually no competition, and some of them even monopolized the market, with customers having little or no choice. As a result, complacency set in and no pressure existed for improvement or change. However, the policy of economic liberalization adopted by the Algerian Government since late 1990s, has thrown open new avenues and challenges to companies in Algeria. The new policy has resulted in open doors through which global corporate players have entered the Algerian markets, and are threatening the domestic manufacturers and suppliers, using quality as a weapon. This has compelled the managements of Algerian public companies to look for those tools and techniques, proven and tested, which would help it to maintain and improve their strategies.

1. ORGANIZATIONAL CULTURE

1.1. CONCEPTS AND DEFINITIONS OF ORGANIZATIONAL CULTURE

When we talk about organizational culture, we are talking about the employee experience, the internal view. What do the employees think? What is it like, to work here? How can the leadership keep them engaged, loyal, and devoted? Organizational culture, the employee experience, is a steady setting for every organization's daily operations. It does not matter if the organizations develop a high-quality product or plan a killer kick-off meeting, if there is an underlying attitude of unpleasantness, resentment, or boredom, the long-term outlook for the organization will not be good. Organization culture is the filter through which everything else happens. Meanwhile creating a positive employee experience is a universal goal, but there is more than one way to get there. And the lines between functions and duties are often blurred. (Brown, Melian, Solow, Chheng & Parker, 2015) . As a summary, Yanagi stated that organizational culture can be defined as philosophies and values shared by the members of organizations and their behavioral patterns for translating them into practical actions. Another often referred-to definition of organizational culture was devised by Arnold (2005, p 625) indicates that “organizational culture is the distinctive

norms, beliefs, principles and ways of behaving that combine to give each organisation its distinct character". These two definitions suggest that organizational culture distinguishes one organisation from another organisation. Therefore, Organizational culture has been attracting more attention in the last few decades due to its potential role in improving the organization's future prospects from the managerial perspective (Fisher & Wilmoth, 2018; Hutchison et al., 2019; Jaskyte & Kisieliene, 2006; Schein, 2010). Watson (2006) stated that culture was originally derived from a metaphor of the organization as "something cultivated." However, culture is also a moderator of the relations among other variables. For instance, the effect of gender on the importance people attribute to their personal values depends on the prevailing cultural orientations in a society. (Schwartz, 2013). Similarly, recent studies on organizational culture have focused more on intangible qualities such as values, behaviors and attitudes which help in the decision-making and development processes. Some researchers stress on the point that organizational culture is the climate and practices that support the development cycle within organizations by dealing with people (Schein, 2010). Talking about organizational culture seems to mean talking about the importance for people of symbolism – of rituals, myths, stories, and legends – and about the interpretation of events, ideas and experiences that are influenced and shaped by the group within which they live. This approach draws people's attention to artifacts in organizations and the meanings attached to them, and to an awareness of history, of the past in organizations having a bearing on the present and the future in those organizations'.

Although many ideas about organizational culture seem to be shared by organizational researchers, there are important differences and even disagreements. For example, some see the term 'organizational culture' as a metaphor and they try to understand the attributes of culture that might be relevant to organizations in terms of symbolic process. Others see organizational culture as a thing, an objective entity ('organizations have cultures') that can be examined in terms of variables (independent and dependent) and linked to other things such as performance, satisfaction, and Organizational effectiveness.

There is disagreement as to where the organizational Culture originates, whether the unconscious mind plays a role, whether there is a single Organizational culture or many cultures, whether an organization's culture or cultures can be managed, whether organizations have cultures, or are places to study cultures, whether and how organizational cultures can be studied and whether they should be studied at all (Frost et al. 1985, pp. 17-18). Numerous other definitions of organizational culture have been put forward which resemble one another only in their vagueness. It seems that no single element is detachable that might enable the organizational culture to be measured (Graves 2011). The way we do things around here' might be the most common sense and easy-to-understand definition of organizational culture.

However, it oversimplifies the concept and misses powerful underlying concepts and processes. It is better to regard organizational culture as referring to the shared assumptions, beliefs, values and norms, actions as well as artifacts and language patterns in an organization. It should be regarded as an acquired body of knowledge about how to behave and shared meanings and symbols, which facilitate everyone's interpretation and understanding of how to act within an organization. 'Culture is the unique whole, the heart and soul that determines how a group of people will behave. Cultures are collective beliefs that in turn shape behavior.

A key role for organizational culture is to differentiate the organization from others and provide a sense of identity for its members. Organizational cultures do not necessarily have to always be logical or consistent; in fact, they seldom are and can appear quite haphazard and chaotic to the outsider. It can also have subgroups with different cultures and with varying agendas. A strong culture is one that is internally consistent, is widely shared, and makes it clear what it expects and how it wishes people to act and behave.

An important point made by some researchers while exploring the concepts and a definition of organizational culture is the stress that culture is a dynamic, evolving Process, not at all

static. Morgan (1986), for example, argued that culture must be understood as an active, living phenomenon through which people create and recreate their worlds. Schein (2010) also stated that organizational culture changes over time and becomes more embedded into the ‘out-of-awareness’ functioning of an organization.

Both Morgan and Schein’s views imply that key individuals have a crucial role to play in shaping and refining the culture. Schein (2010) claimed that ‘organizational culture are created by leaders and one of the most decisive functions of leadership may well be the creation, the management, and the destruction of culture’.

Although the main focus of this research is culture at the organizational level, it is also important that due attention be given to the broader external societal, cultural context within which organizations are embedded. Cultures are —layered as stated by researchers. Cultures permeate many levels of social life simultaneously. Some aspects of culture are nearly universal, like the high value placed on family bonds and good childcare. Other cultural themes are characteristic of whole regions of the world (regional culture).

Organizational culture, therefore, has to be viewed in a broader perspective, with due consideration given to the interrelation or the linkages between cultural themes at the regional, national, organizational and individual levels. Despite the various definitions and perspectives on organizational culture, one thing is universal amongst most of them, and that is the shared nature of the beliefs, Philosophies, norms ...etc. In essence, many claimed that the function of organizational culture is to create a feeling of ‘esprit de corps’ within the organization (Souza, 2001). If this is so, then we should attempt to examine why organizational culture is regarded so important and valuable.

1.2. DIFFERENT ASPECTS OF ORGANIZATIONAL CULTURE

Geert Hofstede, has presented different approaches and perspectives on culture (at both national and organizational level) in his numerous research and publications (Hofstede 1980, 1986, 1991, 1993, 1994). He argued that organizational cultures should be distinguished from national cultures. Cultures manifest themselves, from superficial to deep, in symbols, heroes, rituals and values etc. National cultures differ mostly on the values level; while organizational cultures at the levels of symbols, heroes and rituals, together labeled ‘practices’. Hofstede (1980) studied the differences in national cultures for over fifty countries. The cultures show five independent dimensions of values: power distance; individualism versus collectivism; masculinity versus femininity; uncertainty avoidance; and Confucian dynamism. (Jusuf & Shpresa, 2016)

- Power distance: a measure of the inequality between ‘bosses’ and inferiors, the extent to which this is accepted.

- Uncertainty avoidance: the degree to which one is comfortable with or feels threatened by ambiguous, uncertain situations, the extent one can or cannot tolerate uncertainty and tries to avoid it by establishing more structure.

- Individualism – Collectivism: the degree to which a culture relies on and has allegiance to the self or the group.

In other words, it is the degree to which one thinks in terms of ‘I’ versus ‘we’; either ties between individuals are loose or people are part of a cohesive group throughout their lives.

- Masculinity – Femininity (also known as achievement versus nurturance orientation): the degree to which a culture values such behavior as assertiveness, achievement, acquisition of wealth or caring for others, social support and quality of life.

- Confucian dynamism: this fifth dimension was later added following Hofstede’s work with Michael Bond

(Hofstede & Bond 1988) which was meant to explain the rapid economic development of many Asian countries. This dimension refers to the selective promotion of particular set of ethics found

in Confucian teachings. Particular teachings that lead to economic development include thrift, perseverance, a sense of shame, and following a hierarchy. Other Confucian teachings are less emphasized such as tradition and protecting face. The impact of long-term or short-term orientation is also studied as part of this dimension.

National culture differences are reflected not only in solutions to organization problems in different countries, but also in the validity of management theories in these countries. Different national cultures have different preferred ways of structuring organizations and different patterns of employee motivation. For example, they limit the options for performance appraisal, management by objectives, strategic management and humanization of work. In his research into organization cultures, Hofstede identified six independent dimensions of practices:

- Process-oriented versus results-oriented;
- Job-oriented versus employee-oriented;
- Professional versus parochial;
- Open systems versus closed systems;
- Tightly versus loosely controlled; and
- Pragmatic versus normative

The position of an organization on these dimensions is determined in part by the business or industry the organization is in. Scores on the dimensions are also related to a number of other ‘hard’ characteristics of the organizations. These lead to conclusions about how organizational cultures can be and cannot be managed. In the case of international business, it means handling both national and organizational culture differences at the same time. Hofstede argued that ‘organizational cultures are somewhat manageable while national cultures are given facts for management; common organizational cultures across borders are what keep multinationals together. While defining culture as ‘the collective programming of the mind which distinguishes the members of one human group from another’, Hofstede (1991, 1997) emphasizes that culture is not a property of the individuals, but of groups. Country boundaries are usually cultural boundaries, and national culture is instilled from birth. It has to do with what is considered proper, civilized behavior in that country: It includes, for instance, how to act towards strangers, colleagues, and family; how to address somebody, whether to look them in the face, when to invite them home etc...

Some other researchers, while studying organizational culture, noted that an organization’s structure is a determinant of its culture, i.e. certain structures create certain type of cultures, as reflected in Charles Handy’s work. He outlines a simple framework for categorizing cultures. Handy also uses four (4) Greek Gods to illustrate his basic approaches and the organizational cultures that result (Handy 1991). His four organizational cultures are very easy for people to understand and groups easily readily identify with them and begin to explore their culture through the models he uses:

Role Culture: is perhaps the most readily recognized and common of all the cultural types. It is based around the job or role rather than the personalities and is epitomized by what we tend to think of as the traditional hierarchical structure. As such, it is often referred to as a bureaucracy – controlled by procedures, role descriptions and authority

definitions. Co-ordination is at the top. Job position is central. Its strengths are in its predictability, stability and consistency while it’s obvious opposites of inflexibility and slowness of reaction and adjustment are its weakness. A role culture creates highly structured, stable organization precise job descriptions, usually with a single product. Because of the focus on the role this culture tends to be impersonal, and by implication restrictive, suppressing individuals attempts at improvements. It does not take much thought to work in a role culture. Change is therefore relatively slow and is often only brought about by fear – hardly the best atmosphere for progress.

Task Culture: is one where management is basically concerned with the Continuous and successful solution to problems. Performance is judged in terms of results and problems solved. Although a structure exists, it is flexible and capable of being formed and reformed depending upon the task

in hand (more flexible and adaptable). Handy (1991) likens it to a net where the power comes from the junctions or interstices. The organization is therefore a more loosely bound than the role model. It is very much a small team approach – the network organisation – small ‘organizations’ cooperating together to deliver a project. The emphasis is on results, problem-solving, getting things done. Individuals empowered with discretion and control over their work. Power and respect come from individual knowledge and talent rather than rank or position. The power being influenced from various positions depending upon the current task.

Power Culture: It is like a web with a ruling spider. Those in the web are dependent on a central power source. Rays of power and influence spread out from a central figure or group and lines of communications do not radiate out from this center but also link sideways across the organization. In this type of organization, power derives from the top person, and a personal relationship with that individual matters more than any formal title or position. The dominant influence of the center results in a structure that is able to move quickly and respond to change and outside threats. This ability is gained not by formal methods but by the selection of like-minded individuals who in key positions are able to ‘guess what the Boss would do’ without the need for conformist systems. This culture is often found in small entrepreneurial organizations and political groups but will frequently breakdown as they grow since the web is more difficult to maintain with size. Alternatively, the culture may spawn subsidiary webs.

Person (Star) Culture: The individual is the central point. If there is a structure, it exists only to serve the individuals within it. The culture only exists for the people concerned; it has no super-ordinate objective. Although not a common culture for an entire organization to be based, it is none the less found in small areas of large companies. The culture is that of educated and articulate individuals, specialists who have come together because of common interest – solicitors, academic researchers, consultants etc... They may use some common office services but generally operate independently. They tend to have strong values about how they will work and are very difficult for the organization to manage. The organization – the ‘existential’ organization exists so that individuals can achieve their purposes e.g. universities, medical practices and professional groupings. Charles Handy (1991-video) describes attempting to control this type of organization as ‘like trying to herd a group of tom cats’. It is easily observed that while the first two cultural models focus on the role or task, the last two place the emphasis on individuals.

2. DEFINITIONS OF TOTAL QUALITY MANAGEMENT

Total Quality Management is a management approach that originated in the 1950’s and has steadily become more popular since the early 1980’s. Total Quality is a description of the culture, attitude and organization of a company that strives to provide customers with products and services that satisfy their needs. The culture requires quality in all aspects of the company’s operations, with processes being done right the first time and defects and waste eradicated from operations.

Total Quality Management, TQM, is a method by which management and employees can become involved in the continuous improvement of the production of goods and services. It is a combination of quality and management tools aimed at increasing business and reducing losses due to wasteful practices.

2.1. TOTAL QUALITY MANAGEMENT DEFINED

TQM is a management philosophy that seeks to integrate all organizational functions (marketing, finance, design, engineering, and production, customer service, etc.) to focus on meeting customer needs and organizational objectives.

TQM views an organization as a collection of processes. It maintains that organizations must strive to continuously improve these processes by incorporating the knowledge and experiences of workers. The simple objective of TQM is «Do the right things, right the first time, every time». TQM is infinitely variable and adaptable.

Although originally applied to manufacturing operations, and for a number of years only used in that area, TQM is now becoming recognized as a generic management tool, just as applicable in service and public sector organizations.

There are a number of evolutionary strands, with different sectors creating their own versions from the common ancestor. TQM is the foundation for activities, which include:

- Commitment by senior management and all employees
- Meeting customer requirements
- Reducing development cycle times
- Just In Time/Demand Flow Manufacturing
- Improvement teams
- Reducing product and service costs
- Systems to facilitate improvement
- Line Management ownership
- Employee involvement and empowerment
- Recognition and celebration
- Challenging quantified goals and benchmarking
- Focus on processes / improvement plans
- Specific incorporation in strategic planning

This shows that TQM must be practiced in all activities, by all personnel, in Manufacturing, Marketing, Engineering, R&D, Sales, Purchasing, HR, etc.

2.2. PRINCIPLES OF TQM

The key principles of TQM are as following:

- Management Commitment
 - Plan (drive, direct)
 - Do (deploy, support, participate)
 - Check (review)
 - Act (recognize, communicate, revise)
- Employee Empowerment
 - Training
 - Suggestion scheme
 - Measurement and recognition
- Excellence teams
 - Fact Based Decision Making
 - Continuous Improvement
 - Systematic measurement and focus on CONQ
 - Excellence teams
 - Cross-functional process management
 - Attain, maintain, improve standards
- Customer Focus
 - Supplier partnership
 - Service relationship with internal customers
 - Never compromise quality
 - Customer driven standards

2.3. THE CONCEPT OF CONTINUOUS IMPROVEMENT BY TQM

TQM is mainly concerned with continuous improvement in all work, from high level strategic planning and decision-making, to detailed execution of work elements on the shop floor. It stems from the belief that mistakes can be avoided and defects can be prevented. It leads to continuously improving results, in all aspects of work, as a result of continuously improving capabilities, people, processes, technology and machine capabilities.

Continuous improvement must deal not only with improving results, but more importantly with improving

capabilities to produce better results in the future. The five major areas of focus for capability improvement are demand generation, supply generation, technology, operations and people capability.

A central principle of TQM is that mistakes may be made by people, but most of them are caused, or at least permitted, by faulty systems and processes. This means that the root cause of such mistakes can be identified and eliminated, and repetition can be prevented by changing the process.

There are three major mechanisms of prevention:

- Preventing mistakes (defects) from occurring (Mistake - proofing or Poka-Yoke).
- Where mistakes can't be absolutely prevented, detecting them early to prevent them being passed down the value added chain (Inspection at source or by the next operation).
- Where mistakes recur, stopping production until the process can be corrected, to prevent the production of more defects. (Stop in time).

3. IMPLEMENTATION PRINCIPLES AND PROCESSES

A preliminary step in TQM implementation is to assess the organization's current reality. Relevant preconditions have to do with the organization's history, its current needs, precipitating events leading to TQM, and the existing employee quality of working life. If the current reality does not include important preconditions, TQM implementation should be delayed until the organization is in a state in which TQM is likely to succeed.

If an organization has a track record of effective responsiveness to the environment, and if it has been able to successfully change the way it operates when needed, TQM will be easier to implement. If an organization has been historically reactive and has no skill at improving its operating systems, there will be both employee skepticism and a lack of skilled change agents. If this condition prevails, a comprehensive program of management and leadership development may be instituted. A management audit is a good assessment tool to identify current levels of organizational functioning and areas in need of change. An organization should be basically healthy before beginning TQM. If it has significant problems such as a very unstable funding base, weak administrative systems, lack of managerial skill, or poor employee morale, TQM would not be appropriate.

However, a certain level of stress is probably desirable to initiate TQM. People need to feel a need for a change. Kanter (1983) addresses this phenomenon by describing building blocks which are present in effective organizational change. These forces include departures from tradition, a crisis or galvanizing event, strategic decisions, individual «prime movers,» and action vehicles. Departures from tradition are activities, usually at lower levels of the organization, which occur when entrepreneurs move outside the normal ways of operating to solve a problem. A crisis, if it is not too disabling, can also help create a sense of urgency which can mobilize people to act. In the case of TQM, this may be a funding cut or threat, or demands from consumers or other stakeholders for improved quality of service. After a crisis, a leader may intervene strategically by articulating a new vision of the future to help the organization deal with it. A plan to implement TQM may be such a strategic decision.

Such a leader may then become a prime mover, who takes charge in championing the new idea and showing others how it will help them get where they want to go. Finally, action vehicles are needed and mechanisms or structures to enable the change to occur and become institutionalized.

3.1. OBJECTIVE OF THE STUDY

The objective of this study is to empirically investigate the relationship between organizational culture and the implementation of Total Quality Management Accordingly this paper examined the following research question. Does the organizational culture have a relationship with the implementation of TQM in Algerian public companies?

3.2.METHODOLOGY

3.2.1. THE SAMPLE

The sample of study consisted (107) executives and managers who are working under functional heads of operations, marketing, human resources, and finance departments. The subject community has all the characteristics of the type needed for in-depth study of this topic.

3.2.2. INSTRUMENTATION

The instrument used in the study was a survey questionnaire which consists 72 questions. The organizational culture has been measured by a 52 item questionnaire which has been originally devised by Algerian public companies for its management performance survey. The success of TQM has been measured by a 20 item questionnaire. (See Appendix A & B)

3.2.3. DATA COLLECTION AND ANALYSIS

One hundred and seven (107) questionnaires along with a covering letter were distributed among the selected sample of managers and executives (by E-mail) .It explained the purpose of the study and the importance of the participation of the employees in responding to the questionnaires.

The first stage of data analysis involved computing descriptive statistics as frequencies and percentages for analyzing characteristics of the subjects. Second a reliability analysis was done to check whether the questionnaires measure the variables reliably .The Alpha values were calculated for the same purpose. If the Alpha values are greater than 0.5, the questionnaires measure the variables reliably.(organizational culture questionnaire and implementation of TQM questionnaire) Third a factor analysis was performed to find out the dimensions of each variable ,how questions are grouped to dimensions, to find out whether any unwanted questions can be eliminated from the questionnaire.

Finally the simple correlation analysis was performed to identify the relationship between organizational culture and implementation of TQM. (we used the SPSS 20th version)

4.RESULTS

4.1. QUESTIONNAIRE RESPONSES AND THE PROFILE OF MANAGERS

There were 107 responses from the 109 questionnaires. It is a response rate of 98%, which is at a satisfactory level. However 107 questionnaires were selected for this analysis. It shows that 92% of the respondents were male employees while the rest were female employees. The majority of the employees appear to be within the age group of 40-50(65%). The respondents have been from majority group having job experience of 10-20 years. There were 97% of married and 3% unmarried employees in the sample.

4.2. RELIABILITY ANALYSIS AND FACTOR ANALYSIS

A reliability analysis was done to check whether each Questionnaire measure the variables reliably. The Chronbach’s Alpha value was measured for this purpose .The results reveal that the questionnaires measure the variables reliably.

Table 1. Summary of reliability analysis

	Questionnaire	Alpha Value	Comment
01	Organizational culture Questionnaire	0.7431	acceptable
02	implementation of TQM Questionnaire	0.6953	acceptable

Factor analysis is a statistical procedure to take a large number of constructs and reduce them to a smaller number of factors that describe this measure. A ‘factor’ is a combination of questions where shared correlation explains a certain amount of total variance. After rotation, factors are designed to demonstrate underlying similarities between groups of variables.

4.3. DESCRIPTIVE

The Standard Error of Mean (SEM) is less than 2.7% for all variables and the highest standard Error of mean is for organizational culture (2.6%). The implementation of TQM has the highest average scores. Overall averages are above 03, and it implies that successfulness of all factors.

The following table shows a summary of the descriptive.

Table 2. Summary of descriptive

	Mean	Standard Deviation	Remarks
Organizational culture	3.98	0.271	Highest dispersion : Points scattered away from the mean
implementation of TQM	4.02	0.259	Points scattered some what close to the mean.

4.4. CORRELATION ANALYSIS

The correlation between Organizational culture and implementation of TQM is positive and significant at 1% significance level since $r = 0.580$ and $P = 0.001$.

Table 3. Comment on scatter plots

Variables Involved	Correlation Coefficient (r).	Comments
Organizational culture	0.580	A positive correlation
implementation of TQM		The points are much scattered around a straight line

4.5. THE REGRESSION BETWEEN ORGANIZATIONAL CULTURE AND IMPLEMENTATION OF TQM

The analysis gives the following information.

1. $R = 0.58$, which means a moderate gradient regression line.
2. $R^2 = 0.336$, means 33.6% of the variance of implementation of TQM was accounted for by organizational culture.
3. Sum of squares figures explain a larger proportion of unexplained variance than explained variance.

5. TEST OF HYPOTHESIS

The hypothesis states as follows

—Organizational culture is positively related to the implementation of TQM in Algerian public companies. Correlation analysis explained a positive relationship between organizational culture and implementation of TQM

($r = 0.580$, $P = 0.001$). Regression analysis also supports this by giving a value, ($B_3 = 0.296$). Hence organizational culture is a predictor of implementation of TQM ($F = 34.19$, $p = 0.000$). Hence the decision is organizational culture is a predictor of implementation of Total Quality Management in Algerian public companies

6. DISCUSSION

The study reveals a moderate relationship between organizational culture and implementation of TQM in (Algerian public companies) ($r = 0.580$, $P = 0.001$). This is significant at 1% significance level. Hence organizational culture is reflected on implementation of TQM. The simple regression analysis describes that organizational culture has a positive impact on implementation of TQM with the strength of $B = 0.384$ ($F = 69.423$, $P = 0.000$). The organizational culture gives a measure of implementation of TQM and it has a 42.2% accuracy of predicting. That is 42.2% of implementation of TQM is accounted for, by organizational culture.

The aim of this study was to increase our understanding of the effects of the organization's culture on the implementation of TQM. The results of this research have shown that TQM had the most effects on process management, focus on leadership and management. On the other hand, Human resource problems, performance appraisal and Strategic problems were the most important obstacles of TQM success respectively.

A successful TQM implementation needs long-term strategic planning. Quality gurus and writers strongly emphasize the importance of strategic planning process based on total quality (Dayton, 2001; Hitchcock and Willard, 2002). Strategic problems were important barriers of TQM success in this survey. These barriers included lack of planning and long-term policies, lack of mechanisms for strategy formulating, non-clarity of objectives, inflexibility of organization toward environment and technologies change and lack of legal elements for providing quality services.

This study showed that the implementation of TQM in Algerian public companies with organizational culture was medium. It seems that pay more attention to details leads to more stability in Algerian public companies. In a stable organizations, employees and its executives and managers will have more collaboration.

7. RECOMMENDATIONS

- Placing more care in improving the prevalence level of the organizational culture levels, in general, and focusing on the relatively low-level dimensions. With special care to achieve coherence among these dimensions in terms of proximity of the prevalence levels and lessening the deviations among the dimensions, as well as among the same on dimension, due to the integrative nature among them.

- It is necessary that the companies should assimilate the organizational culture concept as an administrative concept by the administrative leaders in the Algerian public companies.

- The Algerian public companies should reconsider the current administrative systems and apply a clear and understandable mechanism by all the workers.

- The Algerian public companies Managers should be able to create an innovation culture and devise suitable policies to encourage innovation positively within their organizations.

- The Algerian public companies Managers should place special emphasis on innovation and learning and an infrastructure that helps build and preserve an organizational climate which is conducive to continuous improvement and which is sustainable.

CONCLUSION

Algerian public companies have some problems in getting quality performance as a result of the complicated nature of the industry. TQM is being increasingly applied to Algerian public companies to solve quality problem. The implementation of a TQM required a culture change and change in management behavior.

Algerian public companies need to shift from their current culture to a TQM culture that focuses on quality as a key strategy. A review of literature identifies ten important culture elements that contribute to successful implementation of TQM, which include leadership and top management commitment, customer management, training and education, teamwork, people management and empowerment, supplier partnership, quality planning and strategic, process management, rewards and recognition and effective communication. These dimensions of quality culture should be adopted by the Algerian public companies in implementing TQM for continuous improvement.

REFERENCES

- Angela, S. (2006). *The impact of organizational culture on performance*, Melcrum Publishing pp 112-115. <https://www.sinicom.com/wp-content/uploads/2006/10/article84.pdf>
- Badillo, Rustica D. (1997). *The Impact of Organizational Culture on the Employee Behavior and Organizational Performance in the Customs Brokerage Companies*, DLSU-University Research Coordination Office. <https://ejournals.ph/article.php?id=6327>
- Brown, D., Melian, V., Solow, M., Chheng, S., & Parker, K. (2015). *Culture and engagement*. Retrieved from <https://www2.deloitte.com/insights/us/en/focus/human-capital-trends/2015/employee-engagement-culturehuman-capital-trends-2015.html>
- Giannopoulou, E., Barlatier, P. J., & Pénin, J. (2019). *Same but different? Research and technology organizations, universities and the innovation activities of firms*. *Research Policy*, 48(1), 223–233. Doi:10.1016/j.respol.2018.08.008
- Gilbert, G. (1992). *Quality Improvement in a Defense Organization*. *Public Productivity and Management Review*, 16(1), 65-75. DOI: 10.2307/3380806
- Graves, D. (2011) *Corporate culture: diagnosis and change*. London: Printer. <https://www.amazon.co.uk/Corporate-Culture-Diagnosis-Auditing-Organizations/dp/0312169884>
- Haas, L. (2002). *The impact of organizational culture on men's use of parental leave in Sweden*, *Community, Work & Family*, VOL.5, NO.3. PP 319-342. DOI:10.1080/1366880022000041801
- Hofstede, G. (1980) *Culture's Consequences: International Differences in Work Related Values*, Beverly Hills, CA, Sage Publications <https://doi.org/10.1177/017084068300400409> <https://apps.dtic.mil/dtic/tr/fulltext/u2/a141412.pdf>
- Ishikawa, K. (1985) *What Is Total Quality Control? The Japanese Way*. Translated by Lu, D.J., Prentice-Hall, Englewood Cliffs, New Jersey. <https://www.amazon.com/What-Total-Quality-Control-Japanese/dp/0139524339>
- Jusuf, Z & Shpresa, A.(2016), *THE ORGANIZATIONAL CULTURE DIMENSIONS – THE CASE OF AN INDEPENDENT PRIVATE UNIVERSITY IN MACEDONIA*, *STUDIA UBB OECONOMICA*, VOLUME 61, ISSUE 3, 2016, pp. 20-31 DOI: 10.1515/subboec-2016-0002
- Martin, L. (1993). «*Total Quality Management in the Public Sector*,» *National Productivity Review*, 10, 195-213. DOI: <https://doi.org/10.1017/S0047279400023448>
- Moore, M. R. Louis, C. C. Lundberg and J. Martin. *Organizational Culture*. Beverly Hills, Sage: 31-53
- Morgan, G. (1986). *Images of Organization*. *Thousand Oaks, CA: Sage Publications*. <https://doi.org/10.1177/1086026611434274>
- Prajogo, I.(2005), *The relationship between total quality management practices and organizational culture*. *International journal of operations and production management*, VOL.25 , NO.11,PP.1101-1122. DOI: 10.1108/01443570510626916
- Renaë, A. (2005). *The Impact of Organizational Culture and Reshaping Capabilities on Change Implementation Success: The Mediating Role of Readiness for Change*, *Journal of Management Studies*, VOL. 42, NO. 2. <https://doi.org/10.1111/j.1467-6486.2005.00500.x>
- Robbins, S. (1998) *Organisational Behaviour: Concepts, Controversies and Applications*. 8th ed. New Jersey: Prentice Hall <https://www.amazon.com/Organizational-Behavior-Concepts-Controversies-Applications/dp/0138574596>
- Schein, E. (2010). *Organizational culture and leadership (4th ed.)*. San Francisco, United states: Jossey-Bass <https://www.worldcat.org/title/organizational-culture-and-leadership/oclc/56354449>

- Shalom H Schwartz, (2013). *National Culture as Value Orientations: Consequences of Value Differences and Cultural Distance*, Handbook of the Economics of Art and Culture, Vol.2 Chapter: National culture as value orientations: Consequences of value differences and cultural distance Publisher: Elsevier/North Holland Editors: V. Ginsburgh & D. Throsby. DOI: 10.1016/B978-0-444-53776-8.00020-9
- Shortell, S. (1998). *Assessing the impact of total quality management on outcomes of care for coronary artery bypass graft surgery patients: a national study*, Association for Health Services Research. Meeting. PP. 15-208. DOI: 10.1097/00005650-200002000-00010
- Souza-Poza, A., Nystrom, H. and Wiebe, H. (2001). *A cross-cultural study of the differing effects of corporate culture on TQM in three countries*. Intercultural Journal of Quality & Reliability Management, vol. 18, no. 7, pp. 744-761 DOI:10.1108/EUM0000000005778
- Swiss, J. (1992). *Adapting TQM to Government*. Public Administration Review, 52, 356-362. DOI: 10.2307/3110395
- Tichey, N. (1983). *Managing Strategic Change*. New York: John Wiley & Sons. <https://doi.org/10.1002/hrm.3930220313>
- Timmerman, G. (2000). *The Impact of Organizational Culture on Perceptions and Experiences of Sexual Harassment*, University of Groningen. DOI: 10.1006/jvbe.1999.1741
- Van Maanen, J. & Barley, S., (1985). «Cultural Organization: Fragments of a Theory» in P. J. Frost, L. F.
- Van Maanen, J. & Barley, S.R. (1979). *Culture and control in organizations*. In B.M. Staw & L.L. Cummings (eds.), Research in Organizational Behavior. Greenwich: JAI Press <https://apps.dtic.mil/dtic/tr/fulltext/u2/a122826.pdf>

Appendix survey instrument

Appendix A: organizational culture

This questionnaire includes the elements that are generally considered as the critical components of organizational culture (OC). For each statement, check the box that best matches how you feel

1-strongly disagree (SD)

2-disagree (D)

3-neither agree nor disagree (N)

4-agree (A)

5-strongly agree (SA)