## Quality Management Practices and Their Impact on Organization Performance Sahar F. Abu- Jarour

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### **Abstract**

Organization performance is affected by quality management practices. The objective of this research was to investigate the impact of application of TQM system on organizational performance. This research has been applied on a random sample of workers in service companies. The performance of organization was measured through increasing customers' satisfaction, human resources, and organizational management. The results of this research improved that the application of TQM system in service organizations is taken seriously in different organizations. The hypothesis testing of this research indicated that the application of TQM would improve organizational performance in the fields of this research.

#### Introduction

Most modern organizations seeks sustainable growth throw expanding their businesses. The expansion of business is dependent on the ability of organization to compete and stand considerable market share. The performance of the organization its ability to satisfy customers with its good or services will determine finally its ability to expand work.

Recently, the quality management systems were created as a tool to improve the ability of organization to develop their work to meet the requirements of their customers. The quality systems were concerned with managing the operations of the organization and ensure the learning organization process (Shammot, 2011).

Quality management practices are concerned with quality control in one aspect and quality testing for the processes inside the organization on the other one. Quality management cares for the improvement of performances of processes to standardized limit that matches the standards locally or internationally.

The performance of organization is dependent on the ability of the organization to meet the standards of good or service quality required by end users. The organization is mentioned to have a good quality management if the output of the organization is meeting with end users requirements and the possibility to develop the outputs to meet the customers' expectations.

This study will investigated the effect of quality management on organizational performance which will provide good information about this effect in service companies sector.

#### **Research objectives:**

This research will accomplish the major objective concerning with studying the effect of quality management on organizational behavior. This objective will be accomplished through some sub-objectives as follow:

- 1. Studying the effect of quality management systems on improvement of service quality.
- 2. Studying the effect of quality management systems on improving the working staff of organization.
- 3. Studying the effect of quality management systems on time management inside the organization.

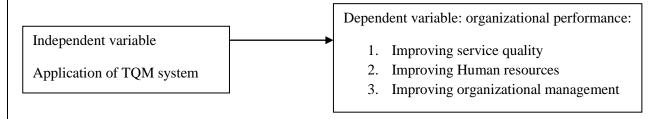
## **Research Hypothesis**

This study will test different hypothesis to find out the effect of TQM on organization performance. These hypothesis

- H1: There is not statistically significant effect of TQM practices on service quality.
- H2: There is not statistically significant effect of TQM practices on improving staff of organization.
- H3: There is not statistically significant effect of TOM practices on time management inside the organization.

## **Research Model**

Depending on literature review, the researcher reached to the following model which measures the effect of TQM on organization performance:



The population of this research included the workers in service sector. To accomplish the objectives of this research, random sample was collected from the company working in services sector. The random sample included 150 workers in services companies. The number of collected questionnaires was 131 with response rate 87.3%.

### **Research Rationale**

The application of TQM is highly distributed in the industrial sector. The awareness of TQM system in service sector is initiating. The effect of TQM on organization performance was proved in the industrial sectors, while this effect on service sector is still ambiguous which needs more investigation.

### **Research Tool**

Questionnaire was used as a tool to collect the data for this study. The questionnaire was composed to three parts. The first part was designed to collect information about the demographic characteristics of respondents, while the second part was designed to collect information about the application of TQM in organizations included in this research, and the third part was designed to collect information about the quality of service introduced, improving staff of the organization and improving management inside the organization.

# **Questionnaire Reliability**

To test the questionnaire reliability Cronbach's alpha test was used. The results showed the value of testing exceeded 0.6 which is the acceptable Cornback's alpha for such kind of research.

Table 1: Cronbach's alpha reliability of the field of the study

Field	Cronbach's	alpha
	value	
TQM application	0.895	
Service quality	0.912	
Human resources improvement	0.834	
Management quality	0.842	

#### **Literature Review**

## **Total quality management**

TQM has been defined as an "approach to improving the effectiveness and flexibility of business as a whole, meeting customer requirements both external and internal to the organization" (Oakland, 1989). Its principles and techniques were born more than two decades ago with the core ideas of quality management gurus, and are now a well-accepted part of almost every manager's "tool kit" (Sousa & Voss, 2002) (Dow, et al., 1999). Since then, as Sousa (2000) reports, it has become an all-pervasive management philosophy adopted and embedded in different forms of organizations in today's business society. A historical examination of the philosophy and practice of quality reveals that TQM encompasses a vast spectrum of topics and approaches, which is beyond the scope of this section. The focus here will be on major characteristics of the quality approach and similarities in philosophy and practices.

The quality precepts and concepts have been summarized and characterized by a number of researchers (see, for example, Ishikawa, 1985; Black, 1993; Zairi and Youssef, 1995; Powell, 1995; Oakland, 1998; Cardy, 1998; Wilkinson *et al.*, 1998; Cole, 1999). Taken together, many quality researchers seem to suggest the following elements to be key to the TQM philosophy:

- customer orientation; and
- prevention approach to errors.

Customer focus as a basic principle at the heart of and underlying TQM is among the most generally accepted precepts in the work of all quality management gurus (e.g. Deming, 1986; Crosby, 1979; Juran, 1989) which, in turn, provides a common goal for all organizational activities and members, and incorporates both quality of design and conformance to quality specification (Hills and Wilkinson, 1995). In relation to the position of customers among the UK-based businesses, McAtarsney's (1999) study supports this view by saying that British organizations have, for years, ignored their customers, yet to improve the quality of service an organization must understand the fundamental issues which concern their customers. Put simply, McAtarsney highlights the "excellent care as the commercial must for the next millennium". This account is well presented in the book written by Robert E. Cole (1999) that may well come to be regarded as the turning point in the TQM literature to customer orientation. Cole (1999, p. 26) presented nine matching characteristics comparing the old with the new quality model. In this comparison, Cole stressed that it is not enough to meet customer expectations, however, the approach to customer is, as Cole (1999) puts it, "anticipation of customer need before customers are aware of these needs i.e. fitness to latent requirements". In a similar vein, extracted from the literature on quality management and recommendations made by TQM gurus, Scholtes (1993) points out that "customers and their needs shape any organization and its work, not vice versa". In a 2001 paper on the principles of quality that consistently rise to the surface as factors of organizational growth and profitability, Williams

and others came to the conclusion that "leading organizations transform themselves from internally focused TQM to a customer-focused business structure" (Williams *et al.*, 2001). Once defined in terms of "meeting specifications" and "design tolerances", quality has evolved from its traditional internal perspective to one that is customer-centric. Quality is now rightfully defined as consistently meeting or exceeding customer expectations. Further, in an exploratory examination of experimental and theoretical literature on quality management, Dale *et al.* (2001) provided a baseline for the advancement of TQM theory in which customer focus as well as management by fact, process orientation, and teamwork are considered the most important factors. The basic premise of TQM, as they reported, is "to achieve customer satisfaction and continuous improvement". The key to successful implementation therefore begins with the identification of key customer satisfaction variables (CSVs) i.e. price, performance, reliability, service, durability, appearance, and added feature. Ahmed (2001) put it succinctly: "the ultimate TQM goal is to attain a high level of customer satisfaction".

Given all this literature in which customers and their needs shape the organizations, a major goal for any performance evaluation system regardless of organizational context is and should be, of course, people (internal customers) satisfaction with the system as a pre-requisite for external customer satisfaction. In particular, customers are both external and internal, and as Wilkinson et al. (1998) report, "the orientation of quality management is to satisfy customers". Most writers and practitioners would agree that customer satisfaction is a vital business goal, reflecting this, customer satisfaction is the most heavily weighted of the Business Excellence Model's nine criteria, with 20 percent of the overall marking allocated to it. Oakland and Oakland (1998) provided an extensive review of such related evidence and explored the link between people management, people satisfaction, customer satisfaction, and bottom-line business results. They cited sufficient evidence to support this link and concluded that "to be successful, organizations must ensure that employees feel valued and are trusted to do a good job". Further, they maintain that "a key element of best practice in many leading organizations involves the effective management of people through: good communication of the organization's values, goals, policies, to foster employee participation and commitment, encouraging and facilitating teamwork, assessing training needs and providing appropriate training and development opportunities, and empowering employees". Accordingly, when these people management practices are in place, employees are more likely to be satisfied in the workplace. Only then will employees be motivated and committed to delivering products or services which meet or even exceed customer requirements and, ultimately, lead to superior business performance and results. The study by Thiagarajan and Zairi (1997) confirms the above findings and reports that the success of implementing TQM in an organization is ultimately judged by its customers.

According to the various studies on TOM, another important aspect of the quality approach is an emphasis on prevention rather than detection of errors (see, for example, Deming, 1986, 1993; Walton, 1986; Oakland, 1998; Cardy, 1998). A substantial literature review on this issue was presented by Cardy (1998). As discussed by Cardy (1998), "the traditional Western approach to quality emphasizes the post hoc inspection process as a mechanism for ensuring adequate quality". However, Cardy points out that emphasis in TQM approach is on making inspection an integral part of the work process, rather than a separate function that occurs later. Deming (1986), one of the most notable quality advocates, explicitly identified disadvantages to the traditional error detection system. One disadvantage is that not all defective products or inadequate service interactions can be identified by a separate review function. Further, the study by Cardy cautioned that this disadvantage might result in disgruntled customers and decreased demand for the organizations' product or service. Furthermore, there are also direct costs in the production of errors due to the time and cost of material associated with the creation of the defective product or inadequate service interaction. More specifically, Deming (1986) identified the "indirect costs" as the most important costs of the detection system. The indirect costs asserted by Deming to be associated with the detection approach include "fear and loss of pride in workmanship". There is considerable support for this argument. Ghorpade et al. (1995) analyzed this issue well and emphasized the pride in workmanship as a core value of the American workforce. Furthermore, there is also a persistent complaint that this energy is not being harnessed by the corporate sector. In short, they summarize this position by saying: "the post hoc evaluation by independent inspectors means that errors unrecognized and possibly not produced by the worker can be found and the worker may be held responsible for those outcomes".

Clearly, what this brief evidence has shown is the fact that people and people-related issues are an essential component of any TQM system. TQM organizations cannot impose technical solutions on the workplace without considering the effect on people, and some kind of balance between organizational and individual needs. The concept and achievement of such a balance must be at the upper limit of TQM.

## **Performance evaluation**

"When you can measure what you are speaking about, and express it in numbers, you know something about it...[otherwise] your knowledge is of a meagre and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in thought advanced to the stage of science". (Lord Kelvin (William Thomson) 1824-1907)

Performance measurement is a topic discussed very often these days. Literally, it is the process of quantifying action, where measurement is the process of quantification and action leads to performance (Neely et al., 1995). The pressure

for achieving and continuously improving performances leads firms to develop formal performance management processes. The performance management process should be considered as one of the key business processes and, according to Bititci et al., (1997, p. 524), it can be defined as "the process by which the company manages its performance in line with its corporate and functional strategies and objectives". The performance management process covers a broad set of activities, spanning from strategy formulation and revision, to accounting, personnel appraisal, etc.

Milkovich et al., (1991) defined performance evaluation as: "is a process, typically delivered annually by a supervisor to a subordinate, that is designed to help employees understand their roles, objectives, expectations and performance success as viewed by the appraiser. Areas requiring improvement are identified and appropriate action is discussed". In other place, he defined the objectives of evaluation as being: "The science of performance appraisal is directed toward two fundamental goals: to create a measure that accurately assesses the level of an individual's job performance and to create an evaluation system that will advance one or more operational functions in an organization." To achieve these goals in performance measurement the variables measured and the tools used should be comprehensive in one direction and make sense to the evaluated employees in different level. The lack of properness of tools will lead the evaluation to move away from the drawn objectives. Milkovich, G. et al. (1991) commented on the types of measures and tools by saying: "Within the measurement tradition, emanating from psychometrics and testing, researchers have worked and continue to work on the premise that accurate measurement is a precondition for understanding and accurate evaluation. Psychologists have striven to develop definitive measures of job performance, on the theory that accurate job analysis and measurement instruments would provide both employer and employee with a better understanding of what is expected and knowledge of whether the employee's performance has been effective. By and large, researchers in measurement have made the assumption that if the tools and procedures are accurate (e.g., valid and reliable), then the functional goals of organizations using tests or performance appraisals will be met. Much has been learned, but as this summary of the field makes explicit, there is still a long way to go." This means that the evaluation process is still lacking many important elements which makes it more effective and approaches its goals.

Resources management, organizational sociology, and more recently applied psychology, have focused their efforts on usability and acceptability of performance appraisal tools and procedures. They have concerned themselves less with questions of validity and reliability than with the workability of the performance appraisal system within the organization, its ability to communicate organizational standards to employees, to reward good performers, and to identify employees who require training and other development activities. For example, the scholarship in the management literature looks at the use of performance appraisal systems to reinforce organizational and employee belief systems. The implicit assumption of many applied researchers is that if the tools and procedures are acceptable and useful, they are also likely to be sufficiently accurate from a measurement standpoint. From a historical perspective, until the last decade research on performance appraisal was largely dominated by the measurement tradition. Performance appraisals were viewed in much the same way as tests; that is to say, they were evaluated against criteria of validity, reliability, and freedom from bias. The emphasis throughout was on reducing rating errors, which was assumed to improve the accuracy of measurement. The research addressed two issues almost exclusively the nature and quality of the scales to be used to assess performance and rater training. The question of which performance dimensions to evaluate tended to be taken as a given. Although, strictly speaking, we do not disagree with the test analogy for performance appraisals, it can be misleading. Performance appraisals are different from the typical standardized test in that the "test" in this case is a combination of the scale and the person who completes the rating. And, contrary to standardized test administration, the context in which the appraisal process takes place is difficult if not impossible to standardize. These complexities were often overlooked in the performance appraisal literature in the psychometric tradition. The research on scales has tended to treat all variation attributable to raters as error variance. The classic training research can be seen as attempting to develop and evaluate ways of standardizing the person component of the appraisal process. In the late 1970s there was a shift in emphasis away from the psychometric properties of scales. The shift was initially articulated by Landy and Parr (1980) and was extended by Ilgen and Feldman (1983) and DeNisi et al. (1984). They expounded the thesis that the search for rating error had reached the point of diminishing returns for improving the quality of performance appraisals, and that it was time for the field to concentrate more on what the rater brings to performance appraisal more specifically, how the rater processes information about the employee and how this mental processing influences the accuracy of the appraisal. The thrust of the research was still on accuracy, but now the focus was on the accuracy of judgment rather than rating errors and the classical psychometric indices of quality.

Just as there was dissatisfaction with progress in performance appraisal research at the end of the 1970s, recent literature suggests dissatisfaction with the approaches of the 1980s. But this time the shift promises to be more fundamental. The most recent research (Ilgen et al., 1989; Murphy and Cleveland, 1991) appears to reject the goal of precision measurement as impractical. From this point of view, prior research has either ignored or underestimated the

powerful impact of organizational context and people's perceptions of it. The context position is that, although rating scale formats, training, and other technical qualities of performance appraisals do influence the qualities of ratings, the quality of performance appraisals is also strongly affected by the context in which they are used. It is argued that research on performance appraisals now needs to turn to learning more about the conditions that encourage raters to use the performance appraisal systems in the way that they were intended to be used. At this juncture, therefore, it appears that the measurement and management traditions in performance appraisal have reached a rapprochement. How do these varied bodies of research contribute to an understanding of performance appraisal technology and application? Can jobs be accurately described? Can valid and reliable measures of performance be developed? Does the research offer evidence that performance appraisal instruments and procedures have a positive effect on individual and organizational effectiveness? Is there evidence that performance appraisal systems contribute to communication of organizational goals and performance expectations as management theory would lead us to believe? What does the recent focus on the interactions between appraisal systems and organizational context suggest about the probable accuracy of appraisals when actually used to make decisions about individual employees? These questions and their treatment in the psychological research and human resources management literature form the major themes of this chapter. In the following pages we present the results of research in the areas of psychometrics, applied psychology, and human resources management on performance description, performance measurement, and performance assessment for purposes of enhancing individual employee performance. The first section deals with measurement issues. The discussion proceeds from a general description of the research on job performance and its measurement to a description of the factors that can influence the quality of the performance assessment. Research relating to managerial-level jobs is presented as available, but most of the work in job performance description and measurement has involved non- managerial jobs.) The second section deals with research on the more applied. The reason for this imbalance in the research literature is obvious: managerial jobs are difficult to define and assess at a specific level not only are they fragmented, diverse, and amorphous, but many of the factors leading to successful outcomes in such jobs are not directly measurable.

#### **Results**

### **Personal characteristics**

The results showed that most of the sample are males with percentage 72.5%, and the most dominant of the sample are from young workers with age ranging from 20-less than 30 years with percentage 64.1%. The experience of the sample concentrated in the three first experience categories less than 5 yrs to 15 yrs with percentage about 80% of the sample.

Table 2: Frequency and percentage of personal characteristics

Character	Frequency	Percentage
Sex		
Male	95	72.5
Female	36	27.5
Age		
Less than 20 yrs	9	6.9
20-Less than 30 yrs	84	64.1
30- Less than 40 yrs	30	22.9
40-Less than 50 yrs	8	6.1
50 yrs or more	0	0.0
Experience in work		
Less than 5 yrs	31	23.7
5-Less than 10 yrs	34	26.0
10 yrs – less than 15 yrs	43	32.8
15 yrs or more	23	17.6

# Attitudes of sample concerning TQM practices and its effect on service, human resources and organization management

The results showed that the application of TQM is complete in the service sector organizations. The means of the application of TQM in different fields was less than 4 which means that the extent of application did not reach the optimal application of this system (Table 3).

Table 3: Means and standard deviation of sample attitudes for the application of TQM in service organizations

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Paragraph	Mean	Sd.	

1. The organization applied TQM concerning human resources	3.8	1.0
2. The organization applied TQM concerning the products		
quality	3.7	1.0
3. The organization applied TQM concerning customers'		
satisfaction	3.6	1.0
4. The organization applied training courses about TQM for		
different management levels	3.5	1.0

The evaluation for the effect of TQM on different fields of the research was less than very good rank as the mean of evaluation was less than 4 for all paragraphs in different fields (Table 4). This indicates that the service quality, human resources improvement and organization management are not controlled through the application of TQM system which indicates that the improvement of these field is random and scheduled to accomplish the organizational objectives.

Table 4: Means and standard deviation of sample for the effect of TQM on organizational performance

Paragraph	Mean	Sd.
Service quality		
1. The application of TQM system improves the quality of		
services introduced by the organization	3.5	1.1
2. The application of TQM makes it possible for the		
organization to have more integrated group of services	3.4	1.0
3. TQM application increases the satisfaction of customers	3.4	0.9
4.Application of TQM improves the image of organization at		
customers	3.4	1.0
5. TQM application improves the loyalty of customers for		
the organization	3.2	1.0
Human resources performance		
1. TQM management improves the application of target		
training programs	3.4	1.0
2. TQM enhanced the employees capabilities	3.4	1.0
3. TQM improves the internal exchange of knowledge	3.3	1.0
4. TQM improves the employees loyalty for the organization	3.3	1.0
5.TQM improves employees team work performance	3.3	1.0
Management of organization		
1.TQM improves the communication of different		
management levels	3.5	1.2
2.TQM practice improvement decision making in		
organization	3.4	1.2
3. TQM gave more empowerment for employees	3.4	1.1
4. TQM gives the management to concentrate on		
improvements	3.4	1.3
5. TQM increased the trust of employees of organization		
management	3.3	1.2

## Hypothesis testing

The results showed that the organization performance is highly affected by the application of TQM system. The results showed that TQM would improve the service quality by 33.9%, while the human resources would be improves by 42.9% when TQM is applied optimally. The organizational management would be improved by 35.2% if the TQM applied.

Table 5: Simple linear regression for testing the effect of TQM practices on service quality, human resources performance and organization management

Field	R	$\mathbb{R}^2$	t value	Prob.	Condition
Service quality	0.582	0.339	11.554	0.001	Refused
Human resources performance	0.655	0.429	13.984	0.001	Refused
Organization management	0.593	0.352	11.871	0.001	Refused

### **Discussion**

The objective of this research is to test the effect of TQM on organizational performance. The results of the previous research approved that the application of TQM would improve customers satisfaction as it improves the services introduced for customers. Total quality management is concerned for the improvement of products produced by the organization. This indicates that the care for the application of TQM will initiate the organization to have plans to control the quality of services produced which is reflected directly to customers.

Human resources management will be improved significantly as the TQM care for the application of training courses and inside training to ensure that the employees are capable to perform tasks to meet the needs of product quality. The results showed that the TQM would improve the employees' performance. The results showed that the improvement of employees performance was not accomplished as the service companies do not care to apply TQM systems.

Total quality management has been approved to improve the communication inside the organization. This improvement includes the vertical and horizontal communication. This actions are taken to improve decision making and toward increase the organization profit and increase products quality. In this research, the organizational management was evaluated to be weak as the organization does not apply total quality system. The hypothesis testing approves that the increase of the application of TQM system will lead to improving organizational management.

### **Conclusions**

The results of this research approved that the application of integrated TQM system would lead to the improvement of organizational performance through the improvement of customer satisfaction, human resources performance and the organizational management.

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## **Questionnaire**

Dear Sir/Madam

This study aims at investigating the effect of total quality management on organizational performance. Your corporation and real answers will help the researcher to reach good results about this subject. Knowing that the answers will be used for scientific purposes only.

Best Regards

Researcher

## **Approved Questions from IJMSBR.**

First Part: This part is designed to collect personal characteristics about the respondents. Please put  $(\sqrt{})$  before the character that matches your case.

Q1 Sex

Male Female

Q2 Age

Less than 20 yrs 20-less than 30 yr 30-less than 40

40-less than 50yrs 50 yrs or more

Q3 Experience in work

Less than 5 yrs 5-less than 10 yrs 10 yrs or more

Part two: This part designed to collect information about the application of total quality management in your organization using 5 levels Likert scale. Put (X) in front the paragraph under the scale level that matches your point of view.

Paragraph	Extremely	Applied	Fairly	Poorly	Not
	applied		applied	applied	applied
1. The organization applied TQM					
concerning human resources					
2. The organization applied TQM					
concerning the products quality					
3. The organization applied TQM					
concerning customers' satisfaction					
4. The organization applied training courses					
about TQM for different management levels					

# Third part: This part collects information about the effect of TQM on services quality, improving human resources performance, and management of organization

Paragraph	Highly improved	Improved	Fairly improved	Poorly improved	Not improved
Service quality	•		•	-	•
1. The application of TQM system improves the quality of services introduced by the organization					
2. The application of TQM makes it possible for the organization to have more integrated group of services					
3. TQM application increases the satisfaction of customers					
4.Application of TQM improves the image of organization at customers					
5. TQM application improves the loyalty of customers for the organization					
Human resources performance					
1. TQM management improves the application of target training programs					
2. TQM enhanced the employees capabilities					
3. TQM improves the internal exchange of knowledge					
4. TQM improves the employees loyalty for the organization					
5.TQM improves employees team work performance					
Organization Management					
1.TQM improves the communication of different management levels					
2.TQM practice improvement decision making in organization					
3. TQM gave more empowerment for employees					
4. TQM gives the management to concentrate on improvements					
5. TQM increased the trust of employees of organization management					