

# THE EFFECT OF TQM PRACTICES ON ORGANIZATION PERFORMANCE: MEDIATING ROLE OF CONSUMER BUYING BEHAVIOR

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## ABSTRACT

*The purpose of this study is to explore the relationship between Total Quality Management (TQM) Practices and Organization Performance (OP) in Textile Sector of Pakistan. The Tested model also shows the proposed Mediating role of Consumer Buying Behavior (CBB). Data was collected from 120 different textile firms. In order to measure Constructs (Consumer Buying Behavior and Organization Performance) reliability, it was tested through following standard procedure of Confirmatory Factor Analysis and Exploratory Factor Analysis. While the relationship between TQM, OP and CBB was tested through multiple regression and correlation analysis techniques. Results indicate that TQM have stronger effect on Organization Performance. Similarly Consumer Buying Behavior acts as a stronger mediator between the relationship of TQM and Organization Performance. Findings of the current research study contribute in the existing literature of relationship between TQM and Organization Performance, and conclude that if consumer Behavior is studied in the appropriate way. Than the outcome of TQM implementation process will be increased organization performance.*

**Keywords:** TQM, Organization Performance, CCB, CFA, EFA

## INTRODUCTION

The objective of this study is to explore that in today's world of globalization where every organization wants to get competitive age over others by implementing new rules and regulation either it may be ISO 9000, ISO 14000, quality approaches, mass customization, cost reduction, continuous improvement, better management practices, applying advance techniques of process management with the only outcome to satisfying the need and want of customers. At the same time companies are offering new features, advancements in their products and improved quality standards in order to acquire large number of national and international markets. Here in this research

our main focus is on implementing TQM practices in Manufacturing organization, to investigate the hurdles in implementing TQM practices, the effects of TQM implementation on organization performance, and finally the role of customer buying behavior in implementing these international standards.

The antagonist of total quality management expresses their views that most of fundamental principal of this management technique are derived from already existed organizational behavior concept (Boaden, 1996). These critics pointed that the failure of TQM philosophy is because of deficiencies in the values, assumption of management practices. While other researcher emphasize that the values, assumption and concept of TQM are relatively different from other quality management techniques (Sousa and Voss, 2002; Hackman and Wage man, 1995; Dean and Bowen, 1994; Grant, Shani and Krishnan, 1994). Similarly various research findings indicate that the failure of TQM philosophy is not because of principal of total quality management, but because of failure of management skills (Oakland and Tanner, 2007; Williams et al., 2006).

But various researchers find contradicting results related to TQM implementation, its importance and impact on organization performance. International standard organization (ISO) play an important role in TQM philosophy and it is universally approves technique. According to the latest survey throughout the globe more than million organizations follow the latest version of ISO (9000-2008).

## **LITERATURE REVIEW**

Lot of research studies try to investigate the relationship between TQM practices and organization performance, and found contradictory results. Many researcher stress the positive and significant relationship between these two important attributes (Bou-Llusar et al. 2009; Tari, Molina and Castejon 2007; Kaynak, 2003; Douglas and Judge, 2001; Easton and Jarrel, 1998). In contrast other researcher shows negative relationship between total quality management practices and firm performance especially on financial performance of organization (Corredor and Goni, 2010; Macinati, 2008; Benner and Veloso, 2008; Samson and Terziovski, 1999; Dow, Samson and Ford, 1999; Ho, Duffy and Shih 2001).

According to (Hendricks & Singhal, 1999) top six hundred companies from USA who won quality award is the evidence of positive relationship between TQM practices and their performance. All these award winning companies have higher ratio of assets, sales, income, customers etc. than those of non-winning award companies. Similarly

Zairi, Letza and Oakland (1994) studied audit report of five year performance of TQM and non TQM implemented firms. Out of 29 firm's twenty two companies that implement TQM practices, performed at greater gain in return on assets, employability, customer satisfaction committed employees and average remuneration. Similar results were found by (Llusor et al 2009; Tari et al, 2007) in Spanish manufacturing and service industries.

In contrast Harari (1993) findings show that one fifth of TQM implemented firm show better results. Many other researchers also found same results i.e. that TQM is not the only option for better performance of organization (Rich, 2008; Miller, Hartwick and Breton-Miller 2004; Walsh, 1995). According to (Macinati, 2008) findings in Italian health care institutions; he found no significant relationship between TQM practices and organization performance. Corredor and Gani.,(2010) conduct a research study in Spanish manufacturing and service sector, and found no relationship between quality management practices and organization performance. However all those form which adopt TQM practices in earlier stage get advocate advantage.

Therefore in future in-depth investigation between various dimensions of TQM and organization performance may be explored. Review of the literature shows that most of research studies explore the relationship between these two components in western advanced countries i-e USA, Spain, Australia, Germany, etc.. Merely few studies can be found in in the context of the textile market. The majority of textile businesses are located within countries such as Pakistan, The Far East, India in addition to Egypt, which are developing countries. Interestingly, there isn't a single comprehensive study available in the circumstance of Pakistan, which attempts to recognize an association between TQM procedures and organizational efficiency. Therefore, there is to be able to contribute towards debate by conducting a research project in this field.

Thus, the literature exposed above would lead us to formulate the following hypothesis:

**H<sub>1A</sub>**; Customer Focus has no effect on Organization Performance.

**H<sub>1B</sub>**; Top Management Commitment has positive and significant effect Organization Performance.

**H<sub>1C</sub>**; Supplier Quality Management has positive and significant effect on Organization Performance

**H<sub>1D</sub>**; Supplier Quality Management has positive and significant effect on Organization Performance.

**H<sub>1E</sub>**; Continuous Improvement has positive and significant effect e on Organization Performance.

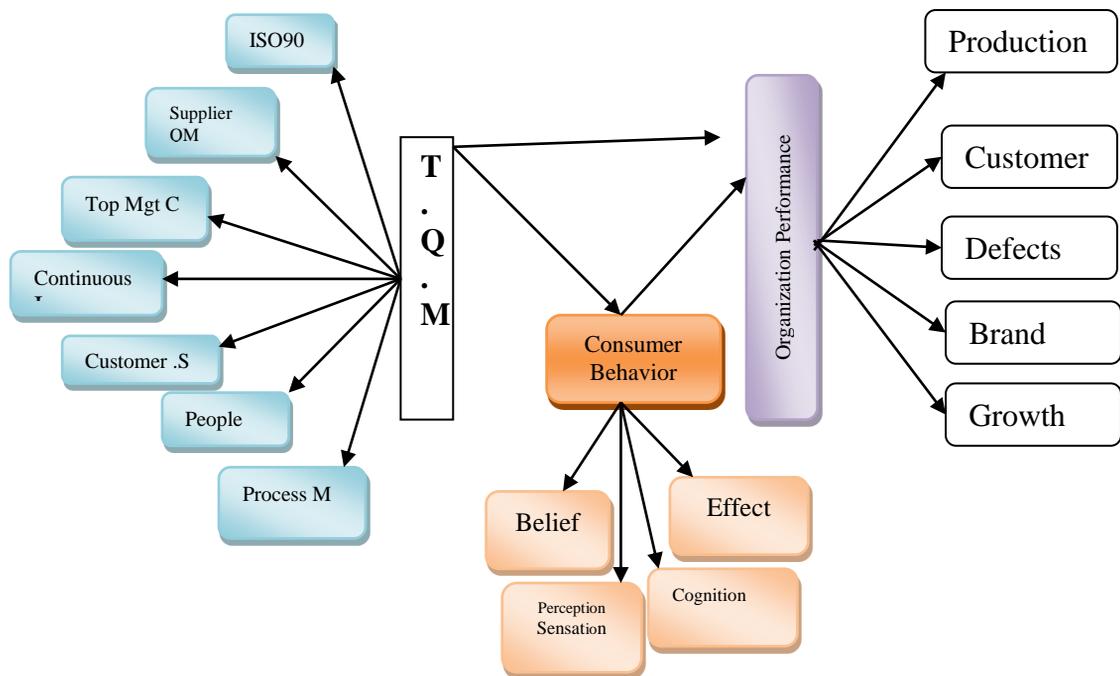
**H<sub>1F</sub>**; Process Management has positive and significant effect on Organization Performance.

**H<sub>1G</sub>**; Process Management has positive and significant effect e on Organization Performance.

**H<sub>1H</sub>**; ISO 9000 series has positive and significant effect on Organization Performance.

**H<sub>1I</sub>**; TQM has positive and significant effect on Consumer Buying Behavior.

**H<sub>1J</sub>**; CBB has positive and significant effect on Organization performance.



## RESEARCH METHODOLOGY

Current study Examine the Relationship between total Quality Management Practices and Organization performance in the textile sector of Pakistan .Data was collected from the quality manager and other personals of textile firms in Lahore, Faisalabad, and other adjacent areas. The Data was obtained from organization having various numbers of employees ranging from 100 up to 500.Questioneria was send to all the respondents of 50 textile industries managers . Total 200 questionnaires was send to the selected sample size and received 132 filled questionnaires. Out of 132 only 120 questionnaires were filled properly and 12 consist of missing values. Confirmatory Factor Analysis was done in order to check Construct Reliability as questionnaire is

design for current research study. Prior to this process the construct was also validate by expert in the field of operation management during Pilot testing Stage. Final correlation and regression analysis was conduct to validate the results of various Hypotheses via SPSS-v.18.

## **ANALYSIS AND RESULTS**

In order to describe the demographic attributes of the respondent Descriptive statistical method is used. The respondent of the current research study consist of 83.3% male and 16.70% were female. The mean score of gender is 1.1667. Most of the respondent were male because in Pakistan prospective job opportunities as well as other social problems hindrances in the success way of women. Majority of the respondent have higher degree that is Master(16 year education) which is 65% (78 respondents ),while only one respondent is noted having the lowest qualification that is SSC degree.28.3% (34 respondents) of the total respondent have Bachelor degree ,and only 7 respondents (5.8%) of the total sample size of 120 consist of Intermediate certificate.48 respondent which consist of (40%) of the age group among 31 up to 40 years and 15 (12.5%) members having the age group of above than 50 years. These are the most senior members of organizations. Most of the respondent is in the age group of 21 up to 30 years, they are 33(27.5%) respondents.

Most of the respondent having background education of Arts and humanities 40 respondents (33.33%), while 36 respondents which comprise of 30% of total population having Business Education and only 14(11.7%) participants having Engineering background. Near to half respondents 45 (37%) of the total sample are the most experienced i.e. having experience more than 10 years and 15 percent have the experience of 7 up to 10 years. 29 number of respondent experience less than 3 years and 28(23.3%) are between the experience group of 3 up to 6 years. The respondent profile related to their specialized department indicate that more than half sample size of the current research study belong to Spinning and Weaving department i.e.30 (25%) and 44 (36.7%) respectively. Respondent belong to quality assurance department is 19(15.8%), HR Department 11 (9.30%) and Marketing Department is 17(14.22%).only 27 (22.5%) respondents indicate that their organization have international quality standards while 93 (77.5%) respondents were unaware about the managing international standards in their organization. It may because of that most of the respondent were not belong to the quality assurance departments. Table number one represent in detail about the mean, median, Kurtosis and Skew ness of the respondent demographic attributes.

Table No 4.1. Descriptive statistics of Demographic Variables of the study

		GEN	EDUI	AGE	SPECILI	TIME	DEPT	CERTIF	AWARD
N	Valid	120	120	120	120	120	120	120	120
	Missing	0	0	0	0	0	0	0	0
<b>Mean</b>		1.1667	3.5750	3.1750	2.8000	2.6583	4.5000	3.5083	1.7750
<b>Median</b>		1.0000	4.0000	3.0000	3.0000	3.0000	5.0000	4.0000	2.0000
<b>Std. Deviation</b>		.37424	.64381	.97586	1.03388	1.21265	1.34101	1.43190	.41933
<b>Skewness</b>		1.812	-1.438	.468	-.238	-.148	-.744	-.497	-1.334
<b>Std. Error of Skewness</b>		.221	.221	.221	.221	.221	.221	.221	.221
<b>Kurtosis</b>		1.303	1.722	-.734	-1.184	-1.562	-.488	-.462	-.225
<b>Std. Error of Kurtosis</b>		.438	.438	.438	.438	.438	.438	.438	.438
<b>Minimum</b>		1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00
<b>Maximum</b>		2.00	4.00	5.00	4.00	4.00	6.00	6.00	2.00

#### 4.1 CFA Test For Combine Effect of TQM Construct.

CFA test for combine effect of TQM construct is an important step to verify the relation of individual factors to its different factor as well as combine effect in single model. CFA for seven factor model of total quality management TQM was run. Results shows that model is good fit because ( $X^2/df= 2.112$ , CFI = .96, NFI= .95, GFI= 1.00 values are below than threshold level. All seven component item loadings i.e. continuous improvement, ISE 9000 customer Focus, and Top management items loading are good and is standardized level. Presented in Figure (4.1).

#### 4.2. Measurement of Convergent and Discriminate Validities for TQM construct

Fornel and Lacker (1981) procedure was adopted in order to check construct discriminate and convergent validity. Convergent validity was measure by explaining the share of variance under single factor. Values of PVC index for all seven items of TQM are as following:

Process Management (PRM) is	56%
People Management (PPM) is	62%
Continuous Improvement (CIT) is	49%

ISO- 9000 (ISO 9000) is	52%
Customer Focus (CFC) is	54%
Top management support TMS is	48%
Supplier quality management (SQM) is	42%

After calculating convergent validities for all seven factors of TQM construct we then measure discriminate validities by sharing common variance among factors. From table it is clearly indicated that two factor of TQM construct namely process management (PPM) and CIT is .61, and PPM & TMS is .64. The reliability of construct was measured by Joreskog Rho. Joreskog Rho value for all factors PPM=0.68, PRM=0.70 CIT=0.74, ISO 9000(0.66), FC (.77), TMS (.62) and SQM .65 respectively.

**Table 4.3: Measurement of Convergent & Discriminate Values For TQM Construct.**

	PPM	ORM	CIT	CFC	TMS	SQM	ISO-9000	C.R
PPM	0.51							0.68
ORM	0.43	0.49						0.7
CIT	0.61	0.52	0.54					0.74
CFC	0.32	0.22	0.33	0.58				0.77
TMS	0.64	0.46	0.42	0.29	0.5			0.62
SQM	0.22	0.32	0.19	0.47	0.49	0.5		0.65
ISO-9000	0.32	0.19	0.27	0.37	0.44	0.48	0.52	0.66

As from above table (4.3) it is clearly shown that inter correlation between TMS and PPM (.64) above that than average values. Similarly inter correlation between (CIT) and PPM is equal to .61 also above than average value. So we combine these two factors is seven factor model and run another CFA to validities the values results of new model indicate that seven factor model fitness is better than that of six factor model. Because values of Chai square, RMSEA and CFI are better in seven factor model as compare to 5 factor model. So well will go with seven factor model for further analysis. Detail results are shown in table

**Table 4.4: Model Fit Indices For TQM.**

	(X <sup>2</sup> /df)	NFI	FGI	AGFI	CFI	TLI	RMSEA
Model 1 with 7 factor	2.49	0.94	0.93	0.95	0.96	0.95	0.052
Model 2 with 4 factor	2.01	0.99	0.95	0.98	0.97	0.95	0.083

**Table.4.5: Hypothesis Testing of Current Research Model based on Results.**

	Model 1	Model 2	Model 3
ORGANIZATION PERFORMANCE			
CONSTANT	2.433	1.933	0.599
CONTROL VARIABLE			
GENDER	0.065	0.077	0.025
EDUCATION	0.033	0.042	0.019
AGE	.280*	.247*	.143*
EXPEREINCE	0.013	0.088	-0.034
DIRECT EFFECT			
TQM	0.273	2.60*	.159*
MEDIATING EFFECT			
CONSUMER BEHAVIOUR			.212*
INDIRECT EFFECT			
CF	0.294*		.160*
TMC	0.282**		0.172
SQM	-0.011		-0.104
CI	0.213		0.132
PPM	0.146		0.192

PRM	0.281	0.142
ISO 9000	0.190	0.146
R2	0.348	0.513
ADJSUTED R2	0.298	0.466

The results from table (4.5) show that total quality management (TQM) has direct relationship with Organization Performance. Furthermore it is evident from results that some important attributes of TQM namely Customer Focus, Top Management Commitment, ISO9000 and age of the respondents have positive and significant impact on Consumer Buying Behavior. So Consumer Behavior can be seen as mediating variables. Contrary to relationship between some of TQM attributes and Organization performance is quite different. The overall model explains 51.3% of TQM behavior of organization. Based on the result findings rejection and acceptance of the hypothesis are presented in the table below.

Hypotheses relationship give us some enrich information about the proposed model. Some of the relationship is not approved in Pakistan textile sector. ISO 9000 series implementation hypothesis results shows that it have no significant impact on organization performance but consumer buying behavior is strongly related to ISO series before purchasing any textile material specially in super market and industrialized cities of Pakistan. Similarly supplier quality management aspect of TQM was also not supported by the people from whom data was gathered. But rest of the aspect of TQM namely customer focus, people management, process management, continuous improvement and top management commitment are supported by key investigator. But few component of TQM namely contentious improvement and ISO 9000 series have positive relation with consumer buying behavior but inversely related to organization performance. Surprisingly few of the demographic aspect of respondent were also positively related to relationship with mediators and dependent variable.

## **CONCLUSION AND RECOMMENDATION**

In the light of this study, it can be concluded that TQM practices plays an important role in organization success. And organization performance is directly related to effect TQM practices. In the current research study the mediating role of consumer buying behavior is measured for the first time, and results indicate that (CBB) is directly proportional to organization performance and implementation of TQM practices. The

study confirmed that organization particularly textile sector performance will be increased if the role of consumer buying behavior be consider as mainstream. Hence textile sector may develop appropriate mechanism to study the important floe of consumer buying behavior. Because TQM also can increase organization performance but concentrating on (CBB) will act as a catalyst to boost this relationship.

## **Recommendation**

On the basis of the results drawn from this study” Following recommendation could be drawn.

- It is recommended that manager should use appropriate strategies for implementing TQM practices because it will increase organization performance from financial and HR prospective.
- Management may use appropriate ISO version. Because the old version consist of some defective procedure, while latest ISO 9001-2008 and onward series can produce good results.
- Management should prepare appropriate mechanism to understand the diver’s native of consumer behavior. For this purpose separate department (Research and Development) may be established to make good relationship between organization and customers.
- Planning should be focused applying new version of quality management practices in order to compete other firms.
- For effective implementation process of TQM frequent and continuous training programmed should be arranged.
- In order to get edge over other firm’s organization should focus on their human capital. And try to provide maximum satisfaction. This will reduce their lay off.
- In the current research study data collected was cross-sectional in nature. Because of time and cost constraint researcher could not get longitudinal data. Thus this data not truly represent the population. In future if longitudinal data is collected. That will better evaluate the true picture of TQM process and consumer buying behavior.
- In the current research study data is collected through questionnaire. While organization reports, their status at KSE and annual reports are not utilized. In future in these secondary methods are also applied. Then it will provide true picture of organization performance.

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