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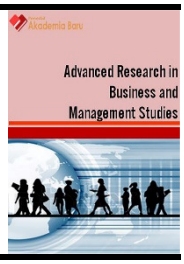

The role of market orientation on the relationship between total quality management dimensions and organizational performance: A study on banks in Libya

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ABSTRACT

The main purpose of this study was to examine the mediating effect of Market Orientation (MO) on the relationship between Total Quality Management (TQM) dimensions namely :(management leadership, customer focus, and continuous improvement) and Organizational Performance (OP). Due to inconsistency in the previous literature, a management tool needed to play the role as a mechanism that can explain the relationship between TQM dimensions and organizational performance in better way. Therefore, this study tried to introduce market orientation as the mechanism between TQM dimensions and organizational performance. Questionnaires were distributed to 400 branches of the Libyan banks. 230 questionnaires were returned and used in the analysis using the PLS-SEM. The results of this study revealed that TQM was positive and have also been proven to be significant predictors of organizational performance. More importantly, the results have also confirmed the mediating effect of Market Orientation on the relationships between TQM dimensions, and organizational performance.

Keywords:
Total quality management, Market orientation, Organizational performance, Libyan banks

1. Introduction

Many strategies have been confirmed to have a significant effect on the overall organizational performance. More specifically, some innovative practices and strategies such as TQM have been reported to influence significantly the organizational performance. Unfortunately, the results regarding the effect of these practices and strategies have been inconclusive in the management literature. Total Quality Management, as a management philosophy that concerns the overall organizational quality through continuous improvement to achieve a high level of customer satisfaction has been widely confirmed as a critical determinant of an enhanced organizational

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performance and competitive advantage [2,8]. Previous studies give mixed result about the relationship between TQM dimensions and organizational performance. To resolve this inconsistency and bridge this theoretical gap this study tried to introduce MO as the mechanism through which TQM can enhance the organizational performance.

2. Total quality management dimensions

This study investigates the most effective TQM critical success factors as management leadership, customer focus, and continuous improvement that suite the context of service sector. The proceeding sections discuss the management leadership, customer focus, and continuous improvement as TQM dimensions.

2.1. Management leadership

Leadership and top management commitment is considered as one of the most crucial factors for TQM in the literature [33]. Top management has to lead the process, take the charges, and provide facilities and work directions [41]. There are many researchers in the literature who determine leadership as a very important factor [2,27,34,36,41].

2.2. Customer focus

In literature, the major objective of TQM strategy is customer satisfaction and meeting customer's expectations. The TQM strategy is considered to have failed if it does not add value to customers [39]. In order to be successfully, an ongoing and effective communication between the firm and customers should be maintained and customers should be allowed to get involved in the design of products and services [16]. Customer involvement in marketing activities requires life-long relationship strategies via interactions.

2.3. Continuous improvement

Continuous improvement is the main aim and philosophy behind TQM implementation beside customers' satisifaction. It refers to desire for continuing improving all aspect in the organization and searching for never ending improvement to have better methods for improving all processes including inputs and outputs [8].

3. Market orientation

Theorists in the field of marketing have addressed market orientation for decades [43]. The concept has been utilized to describe the marketing concept implementation which postulates that a firm should satisfy the customer's long-term needs [3] and that for a firm to be successful, it should be driven by customer-orientation. The proposed operational definitions of marketing orientation arose in the early 1990s. The concept has been described by [21] as a set of behaviors and activities in the organization. Specifically, they defined it as the organization-wide production of market intelligence that concerns the current and future needs (customer philosophy), dissemination of this intelligence throughout departments (integrated marketing organization), and organization-wide responsiveness towards it (goal achievement). The above definition covers activities that concern collection of information concerning customer needs and acting on them. On the other hand, [25]

described it as consisting of three behavioral components and addressing customers and competitors. According to them, market orientation comprises of customer orientation, competitor orientation and inter-functional coordination. The former two covers the activities involved in collecting information regarding the buyer and competitors in the target market and disseminating it across the business while the latter has its basis on customer and competitor information and consists of the coordinated efforts of business that involves more than marketing in the hopes of creating optimum value for buyers.

4. The mediating role of market orientation between TQM dimension and organizational performance

While the effect of TQM on the organizational performance has been confirmed by many studies [10,17,18,24,30,36-38,40,44], some other studies argued that not all TQM initiatives were successful [11,20,22,28,31,35,42]. To resolve this inconsistency and bridge this theoretical gap, there have been many calls for more research to be extended. Thus, Market orientation, as a mediator, can have the suitable mechanism that can explain the relationship between TQM and organizational performance and solve the inconclusiveness findings in the previous literature. In other words, market orientation is considered the instrument that will answer the how and why the relationship between TQM and organizational performance occurs. According to [6], the mediator is the mechanism that can explain the relationship between independent variable and dependent variable. In other words, the indirect effect through mediator is investigated and compared to the direct effect. Due the inconsistent results of the direct effect between TQM and organizational performance, the indirect effect through market orientation was examined. TQM and market orientation can provide a competitive advantage to respond to the competitive business environment. Therefore, the following hypotheses were proposed to be examined:

H1: Market Orientation (MO) mediates the relationship between TQM- Management Leadership and organizational performance of banks.
H2: Market Orientation (MO) mediates the relationship between TQM- Customer Focus and organizational performance of banks.
H3: Market Orientation (MO) mediates the relationship between TQM - Continuous Improvement and organizational performance of banks.

5. Research methodology and statistical data analysis

5.1. Measurement and instrumentation

Organizational performance measurement was obtained from studies in literature dedicated to management. Specifically, [19,25] measures were adapted to measure performance. Some items were adopted from [22,26]. Moreover, the study used the [7,29,31] items to measure TQM dimensions. The measurement related to market orientation adopted from [25].

5.2. Population and sample

The population of the study was the total number of Libyan banks (14 banks) with 460 bank branches. To test the model of the study and to examine the developed hypotheses, a simple random sample as probability technique was used to select the data form the list of banks branches. Based on that, 400 questionnaires were distributed out of 230 questionnaires were returned. To examine

the model of the study, Partial Least Squares Structural Equation Modeling (PLS-SEM) approach was employed utilizing the SmartPLS package 0.2. The analysis was detailed in the following sections.

5.3. The measurement model

The first step was to confirm the validity and reliability of the measurement model following the Partial Least Square Structural Equations Modeling (PLS SEM). The SmartPLS 2.0 package was used.

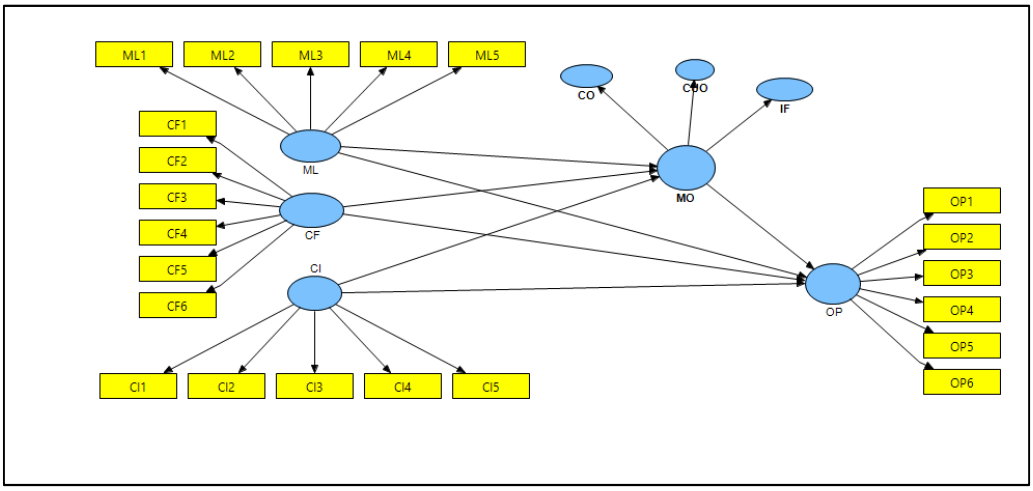

Fig. 1. The research framework

Prior to hypotheses testing, the Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to assess the measurement model's outer model. The following phases, suggested by [4] were followed. This process confirms construct validity. Construct validity can be assessed through the construct's content validity, convergent validity and discriminant validity.

5.3.1. Construct validity of the measurements

Construct validity refers to the degree to which the items generated to measure a construct can appropriately measure the concept they were designed to measure [15]. More specifically, all the items designed to measure a construct should load higher on their respective construct than their loadings on other constructs. This was ensured by a comprehensive review of the literature to generate the items that already have been established and tested in previous studies. Based on factor analysis, items were correctly assigned to their constructs. The items showed high loadings on their respective constructs when compared with other constructs as showed in Table 2 and all the items have significantly loaded on their respective constructs [9].

5.3.2. Convergent validity of the measurements

Table 2 shows that the composite reliability values ranged from 0.889 to 0.956 these values exceeded the recommended value of 0.7 [14,15]. The average variances extracted (AVE) values ranged between 0.544 and 0.785, indicating a good level of construct validity of the measures used [5]. These results confirm the convergent validity of the outer model.

Table 1
Factor loading

	CF	CI	CO	CUO	IF	ML	OP
CF1	**0.765**	0.488	0.416	0.491	0.376	0.634	0.383
CF2	**0.867**	0.512	0.481	0.551	0.471	0.593	0.447
CF3	**0.859**	0.482	0.441	0.498	0.497	0.562	0.395
CF4	**0.785**	0.450	0.523	0.564	0.579	0.573	0.414
CF5	**0.806**	0.543	0.540	0.574	0.560	0.606	0.487
CF6	**0.837**	0.439	0.495	0.538	0.423	0.634	0.410
CI1	0.560	**0.833**	0.651	0.648	0.644	0.535	0.582
CI2	0.446	**0.866**	0.621	0.576	0.571	0.549	0.537
CI3	0.425	**0.782**	0.503	0.479	0.514	0.541	0.460
CI4	0.507	**0.786**	0.566	0.591	0.520	0.615	0.477
CI5	0.424	**0.731**	0.577	0.581	0.532	0.487	0.493
CO1	0.501	0.661	**0.812**	0.711	0.658	0.555	0.525
CO1	0.501	0.661	**0.812**	0.711	0.658	0.555	0.525
CO2	0.358	0.523	**0.781**	0.579	0.581	0.391	0.393
CO3	0.409	0.585	**0.797**	0.642	0.584	0.387	0.486
CO4	0.604	0.553	**0.834**	0.736	0.586	0.555	0.573
CO5	0.562	0.617	**0.816**	0.772	0.664	0.505	0.550
CO6	0.420	0.638	**0.821**	0.715	0.678	0.485	0.627
CO7	0.507	0.601	**0.844**	0.792	0.694	0.504	0.595
Cuo1	0.539	0.656	0.763	**0.867**	0.644	0.556	0.637
Cuo2	0.509	0.643	0.750	**0.854**	0.681	0.547	0.560
Cuo3	0.560	0.660	0.794	**0.908**	0.732	0.507	0.585
Cuo4	0.591	0.671	0.753	**0.894**	0.777	0.513	0.595
Cuo5	0.675	0.573	0.773	**0.873**	0.784	0.594	0.599
Cuo6	0.611	0.639	0.796	**0.917**	0.796	0.590	0.651
IF1	0.595	0.574	0.638	0.728	**0.769**	0.513	0.415
IF2	0.477	0.605	0.643	0.698	**0.792**	0.530	0.558
IF3	0.477	0.529	0.606	0.583	**0.791**	0.433	0.557
IF4	0.333	0.466	0.555	0.572	**0.751**	0.319	0.423
IF5	0.441	0.555	0.615	0.668	**0.819**	0.458	0.545
ML1	0.554	0.604	0.523	0.517	0.426	**0.835**	0.465
ML2	0.552	0.469	0.465	0.548	0.425	**0.826**	0.522
ML3	0.566	0.532	0.474	0.467	0.536	**0.804**	0.457
ML4	0.570	0.492	0.429	0.390	0.409	**0.753**	0.311
ML5	0.704	0.635	0.503	0.560	0.530	**0.809**	0.487
OP1	0.430	0.603	0.628	0.640	0.607	0.521	**0.908**
OP2	0.475	0.617	0.631	0.651	0.652	0.544	**0.893**
OP3	0.362	0.454	0.480	0.568	0.443	0.427	**0.815**
OP4	0.425	0.363	0.443	0.494	0.424	0.359	**0.730**
OP5	0.440	0.589	0.565	0.562	0.506	0.529	**0.887**
OP6	0.413	0.452	0.440	0.379	0.438	0.332	**0.616**

5.3.3. Discriminant validity of the measures

The discriminant validity of the measures was confirmed by employing the method of [14]. As illustrated in Table 3, the square root of average variance extracted (AVE) for all the constructs were placed at the diagonal elements of the correlation matrix. As the diagonal elements were higher than the other elements of the row and column in which they were located, this confirms the discriminant validity of the outer model.

Table 2
Convergent validity

Construct	Items	Loading	Cronbach's Alpha	CR	AVE
Customer Focus	CF1	0.765	0.903	0.925	0.674
	CF2	0.867			
	CF3	0.859			
	CF4	0.785			
	CF5	0.806			
	CF6	0.837			
Continuous Improvement	CI1	0.833	0.859	0.899	0.641
	CI2	0.866			
	CI3	0.782			
	CI4	0.786			
	CI5	0.731			
Competitor Orientation	CO1	0.812	0.916	0.933	0.665
	CO1	0.812			
	CO2	0.781			
	CO3	0.797			
	CO4	0.834			
	CO5	0.816			
	CO6	0.821			
	CO7	0.844			
Customer Orientation	Cuo1	0.867	0.945	0.956	0.785
	Cuo2	0.854			
	Cuo3	0.908			
	Cuo4	0.894			
	Cuo5	0.873			
	Cuo6	0.917			
Inter-functional Coordination	IF1	0.769	0.844	0.889	0.616
	IF2	0.792			
	IF3	0.791			
	IF4	0.751			
	IF5	0.819			
Management Leadership	ML1	0.835	0.866	0.903	0.650
	ML2	0.826			
	ML3	0.804			
	ML4	0.753			
	ML5	0.809			
Organizational Performance	OP1	0.908	0.894	0.921	0.664
	OP2	0.893			
	OP3	0.815			
	OP4	0.730			
	OP5	0.887			
	OP6	0.616			

5.3.4. Prediction relevance of the model

Results pertaining to the prediction quality of the model are illustrated in Table 4, which indicated that the cross-validated redundancy of organizational performance, and market orientation was 0.490 and 0.352 respectively. The cross-validated Communality was 0.664 and 0.611 respectively. These values were more than zero, indicating an adequate predictive validity of the model based on the criteria suggested by [13].

Table 3
Discriminant validity

Construct	1	2	3	4	5	6	7
(1)CF	**0.821**						
(2)CI	0.593	**0.801**					
(3)CO	0.592	0.733	**0.815**				
(4)CUO	0.656	0.722	0.871	**0.886**			
(5)IF	0.596	0.699	0.781	0.832	**0.785**		
(6)ML	0.731	0.680	0.596	0.622	0.579	**0.806**	
(7)OP	0.519	0.640	0.661	0.683	0.637	0.565	**0.815**

Table 4
Prediction relevance of the model

Variable	Variable Type	R square	Cross-Validated Communality	Cross Validated Redundancy
Organizational Performance	Endogenous	0.537	0.664	0.352
Market Orientation	Endogenous	0.802	0.611	0.490

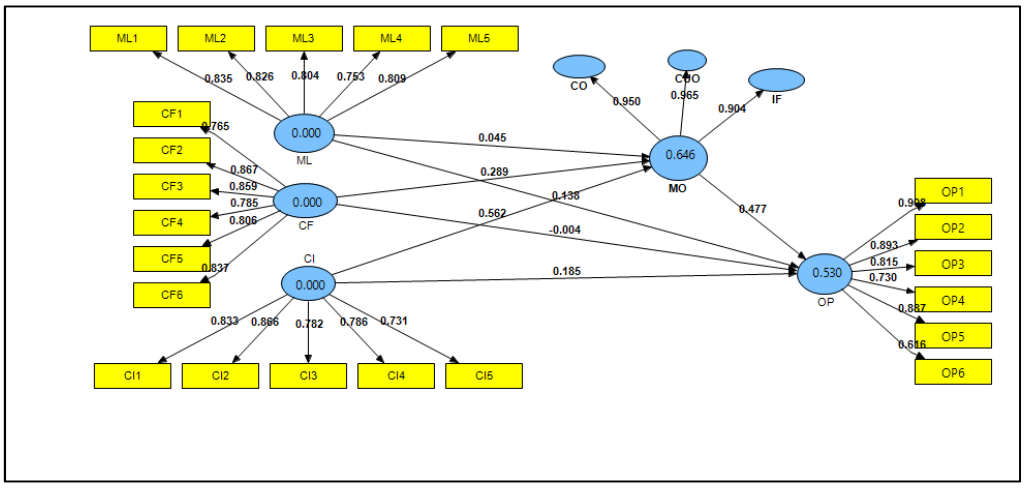

Fig. 2. Path model results

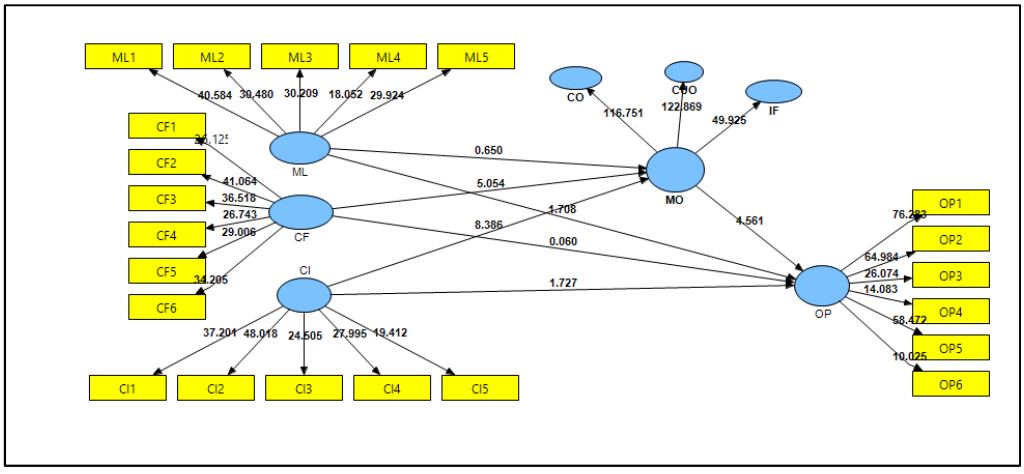

Fig. 3. Path model significance results

5.3.5. Hypotheses testing

The mediating role of market orientation was examined with the help of SmartPLS 2.0. The results of the test are displayed in Table 5, where it is evident that after employing the bootstrapping method no mediation effect of Market orientation on TQM- Management Leadership and Organizational performance relationship at the significant level of 0.01 (β= 0.021, t=0.647, p> 0.01) and thus H1 is not supported. As well as, the mediating role of MO on the TQM- Customer Focus and OP relationship, the results obtained show that MO fully mediates at level (β= 0.137, t=3.572, p<0.001) indicating partial support for H2. Similarly, market orientation partially mediates TQM - Continuous Improvement and organizational performance Organizational performance relationship at the significant level of 0.001 (β= 0.265, t=3.476, p<0.001) and thus H3 is supported.

Table 5
Testing Mediation effect of Market Orientation

Hyp No	Hypothesis	Path Coefficient			Standard Error	T-value	P value	Decision
		a*b	c	c'				
H1	MO as Mediator between ML-OP	0.021	0.569	0.289	0.032	0.647	0.259	No Mediation
H2	MO as Mediator between CF- OP	0.137***	0.526	0.562	0.038	3.572	0.000	Full Mediation
H3	MO as Mediator between CI-OP	0.265***	0.644	0.185	0.076	3.476	0.000	Partial Mediation

*:p<0.05; **:p<0.01; ***:p<0.001

6. Discussion and conclusion

The results of this study confirm the mediating impact of market orientation on the TQM dimension -organizational performance relationship following the bootstrapping method. This result is aligned with the proposed hypothesis H1has been not supported. On the other hand, H2, H3 in that a mediating effect was confirmed according to [6].

Market orientation is a mechanism that sheds an in-depth insight into the TQM dimension - organizational performance. Hence, this positive effect and significance is expected to increase through the practices of market orientation factors, which are customer orientation, competitor orientation and inter-functional coordination. The result indicates that Libyan banks do employ market orientation practices by concentrating on customers and competitors. In this regard, several insights have been brought up in this study concerning the issues relating to organizational performance of Libyan banks.

This study examined the role of market orientation in maximizing organizational performance – specifically, its mediating role in the relationships of TQM Dimensions and organizational performance. Based on the results, MO has a key role in developing and improving the performance of organizations. To this end, market orientation is explained by the RBV theory in that it is an important resource in achieving competitive advantages.

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