

The Effect of Total Quality Management, Organizational Excellence on Organizational Performance-The Moderating Role of Entrepreneurial Orientation

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Abstract

Purpose: This study was set up to examine the effect of TQM, organizational excellence on organizational performance.

Design/methodology/approach: To examine the model of the study, design of survey questionnaire was employed through data collected from Al Ain Municipality in the UAE. Out of 200 questionnaires, 135 only usable returned. Partial Least Square (PLS) structural equation modelling was employed to analyze the data.

Findings: Based on statistical results, the effect of TQM, organizational excellence, and organizational performance were confirmed. Moreover, Entrepreneurial orientation was found not supported to moderate the effect of TQM as well as organizational excellence on organizational performance.

Practical implications: The results of this study have several practical implications. This study will help managers and decision makers to take the proper decision when implementing TQM system. Due to that, Entrepreneurial orientation are the most important practices to ease the TQM& Organizational Excellence implementation.

Originality/value: This study is considered as the only empirical study that examines the collective effect of TQM, organizational excellence on organizational performance.

Keywords: Total quality management (TQM), organizational excellence (OE), Entrepreneurial orientation (EO), organizational performance (OP), Al Ain Municipality.

Introduction

Today lots of challenges & obstacles a various organization's & companies are facing over all the world, however at the same time there are a great ambition to overcome the difficulties & reach to the planned goals, vision & goals. This can be achieved through practicing & executing an innovative strategies & plans which will foster the journey of fruitful outcomes & accordingly remaining competitive. To support, advocate the development & improvement process, organizations have to cope the updated ideas, attitude as well as philosophy of the Total Quality Management & business excellence (Oakland, 1999).

TQM is a successful tool on the journey of excellence and considered the philosophy of management. It is historical origins back long time. However it is considered as recent term & a pre-requisite instrument for any organization (McAdam, 2000). It's also as stated by Karuppusami and Gandinatha, 2006, TQM is a continuous improvement of quality as well as satisfying the customer's needs. This study examined the effect of TQM, OE, EO and organizational performance. Due to the inconclusiveness findings in the previous literature of the relationship between TQM, OE and organizational performance, this study is an attempt to investigate the mechanism of TQM and Entrepreneurial orientation as moderator variable that can explain that relationship through implementing quantitative research based on questionnaire survey.

2. Related Literature and Research Hypotheses

The literature review is presented in three sections. As a base for understanding the other following relationships, the first section presents the relationship between TQM and organizational performance. Others followed sections will explain the relationships between variables which is HRM, EO and OE and OP. As a result of the thorough discussion of the previous studies in the literature, many hypotheses are proposed for these relationships to be examined in the following parts of this research.

2.1 TQM and Organizational Performance

TQM is known as one of the major revolutions of the last years in the area of management. Accordingly its energy or effort to reach & to beat the various needs of the clients & forecasting by low expense through continuous improvement of people & all to be committed to & concentrating on the methods of organization(Isaksson, 2006).

In the view of (kanji, 2002) TQM Total quality management, it's the management philosophy& attitude that accelerate an organizational culture committed to clients & customer satisfaction through continuous improvement.

Some more idea regarding that, Sila(2007) exposed the different variable of the TQM must be in attention for evaluating the linkage between organizational performance & Total Quality Management, such as leadership, information & investigation, process management, clients focus, HRM, organizational effectiveness financial and market output, & supplier management.

Some researchers have conducted some studies in regards to comprehensive literature

evaluation. Ahire et al. (1995) in regards to TQM strategy testing, he used the MBNQA & EQA criteria. 226 empirical works have been revised, case studies, while the conceptual was accounted approximately from 1970 to 1993 which related to the works on quality management. The outcomes was as the follows, lots of conceptual works have been reported however, there was an important shortage in the empirical & accordingly they proposed to focus on more empirical investigation & expanded which related to TQM strategy.

The mixed results in the previous literature of the effect of TQM on organizational performance motivate us to do some further study and to highlight that relationship with the existing of other variables that may help in increasing the positive and significant effect. Therefore, the following hypothesis is proposed:

H1: There is a positive significant relationship between TQM practices and Organizational performance.

H1 a: There is a significant relationship between TQM-Management Leadership and Organizational Performance.

H1 b bThere is a significant relationship between TQM-Strategic Planning and Organizational Performance.

H1 c:There is a significant relationship between TQM-Service Design and Organizational Performance.

H1 d: There is a significant relationship between TQM-Information and Anlysis and Organizational Performance.

H1 e: There is a significant relationship between TQM-Continuous Improvement and Organizational Performance.

H1 f: There is a significant relationship between TQM-Benchmarking and Organizational Performance.

2.2 Organizational Excellence and Organizational Performance

(Peters, W, 1982) has stated that definition of the excellence is commonly connected to the bestseller. It also from their point of view defined excellence in a very vague manner & it's particularly finance oriented.

Excellence sustains the organization capability to deal with change (Oakland Consultation, 2005). For achieving Business excellence, managers have to have a clear vision & goal that will lead & drive the organization to achieve its goals and objectives (Oakland Consultation, 2005), delivering value and managing organizations for stakeholders. Excellence is regarded as the highest level of performance(Antony & Bahattacharyya, 2010) therefore organizations should care more in their performance.

Antony and Bhattacharyya (2010) examined the connection of the organizational excellence with the organizational performance in SMEs in India & the results was, there is a possibility to be calculated by depending on the relationship among various for the organizational

excellence indicators of performance. Furthermore, that relationship have been established & tested according to the figures & information received from 407 respondents in SMEs in India. The suggested & proposed outcomes that organizational performance & excellence come with measured by consolidating performance variables. Hence calculation of the organizational excellence can be through connection among performance variables.

Moreover, they found that organizational excellence helps managers to evaluate and differentiate organizations in better method that organizational performance.& Therefore, the following hypothesis is proposed to be tested:

H4: The organizational excellence moderates the relationship between TQM and organizational performance

2.3 Entrepreneurial orientation and Organizational Performance

The historical definition was defined by the classic Joseph Schumpeter (1934) “The entrepreneurship is a deal we make related to a certain type of behaviour including initiative, organization and reorganization of socio-economic mechanisms and the acceptance or risks and failure”. The activities of the Entrepreneurial have dramatically increased in such of the organizations as well as companies in the current period & that increased also its successfully in the way to achieve an organizational performance & constant competitive advantage (Covin&Slevin, 1986; Wiklund& Shepherd, 2003; Zahra, 1986).

There has been published bulk of research in the field of entrepreneurship and Entrepreneurial orientation (EO) concept. Although, entrepreneurial orientation (EO) has attracted interest of many writers, but the most majority of publications has come from USA authors and almost no empirical findings focus on Europe (Frank, Kessler, & Fink, 2010). In addition, they argued that the works of Harms and Ehrmann (2003), Kreiser, Marino, and Weaver (2002a; 2002b; 2002c), Marino, Strandholm, Steensma, & Weaver (2002), Wiklund (1998; 1999), Wiklund and Shepherd (2003; 2005), and other some published doctoral thesis like Haid (2004) and Harms (2004), are exceptions, however most of them are not empirical studies.

Lumpkin and Dess (2001) studied the linking between two dimensions of EO and organization performance with investigating the moderating role of industry life cycle and environment using data collected from 124 executives from 94 organizations by survey instrument. Their finding suggested that the two dimensions, proactiveness and aggressiveness, have different effect on organizational performance. In other words, they found that proactiveness was positively related to performance but aggressiveness was poorly associated with performance. The following hypothesis is proposed to be examined:

H3: There is a significant relationship between EO and Organizational performance.

H3 a: There is a significant relationship between EO-Innovativeness and Organizational Performance.

H3 b: There is a significant relationship between EO-Proactiveness and Organizational Performance.

H3 c: There is a significant relationship between EO-Risk-taking and Organizational Performance.

3. Methodology

The main purpose of this study is to examine the effect of variables of TQM, OE and EO on OP. To achieve that a quantitative methodology approach was employed. Questionnaire survey is considered as one of the important tools to gather the primary data from respondents (Kerlinger & Lee, 2000). The data collected through cross-sectional research design which is suitable for this study to collect the data at the point of time. The survey questionnaires were distributed in March, 2015 and collected end of May, 2015 through hard copy and emails. The source of data was Al Ain Municipality in the UAE.

Because of the nature of this study's variables, various sections and departments of Al Ain Municipality have been selected to fill the questionnaire through Head of departments. Head of department are the middle managers as a link between managers and employees. They are aware more than others on how these practices and strategies how it can be implement it and working. Two hundred questionnaires have been distributed and one hundred thirty five were returned completely. Dimensions and measurements have been adopted and adapted from previous studies. TQM measurements have been adopted from: Brah, Wong, and Rao (2000), Anderson and Sohal (1999), Terziovski& Samson (1999), and Rao (2000). Whereas measurements of organizational excellence have been adopted from Pinar and Girard (2000), and organizational performance from Kaplan and Norton (1992; 2000). Structural Equation Modeling (SEM) is the technique that used to analyze the data and test the proposed hypothesis through Smart-PLS statistical software.

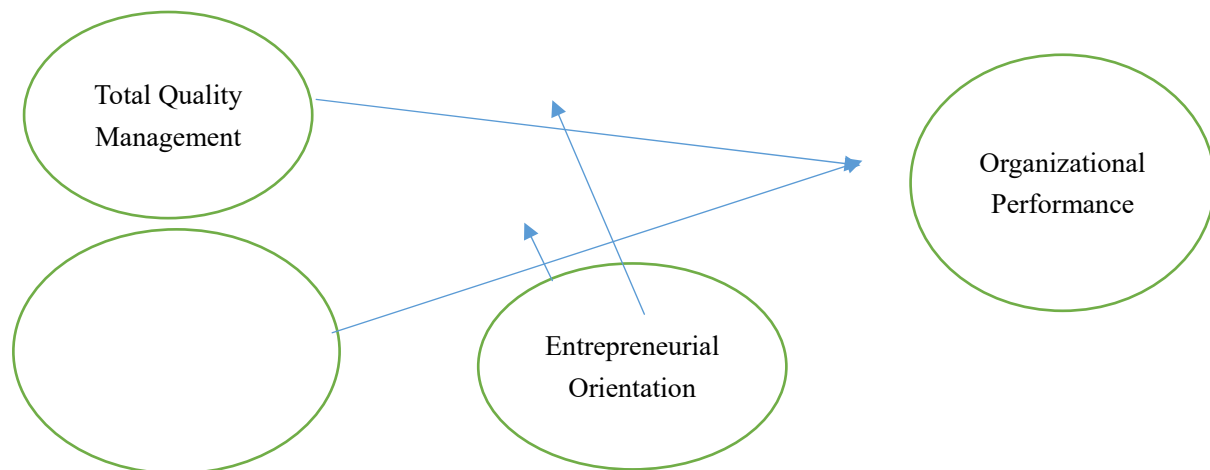


Figure 1. Theoretical Framework

4. Statistical analysis and results

Partial Least Square (PLS) is used to confirm the reliability and validity of the outer. As confirmed by various researchers, reliability and validity are the initial tests before doing the hypotheses testing. The model of this study contains the variables: TQM, organizational

excellence, Entrepreneurial orientation and organizational performance. In order to examine the relationships between these variables, this study follows the two-step approach suggested by Chin (1998). In the literature of Structural Equation Modeling (SEM) the construct validity and reliability of the model should be approved before examining the hypothesized relationships.

4.1 The Outer Model (Measurement)

The following sections test the validity and reliability of the constructs before establishing the goodness of the measurement model. The construct validity and reliability was tested through the content validity, the discriminant validity, and the convergent validity as illustrated in the next sections.

4.1.1 The Content Validity

In multivariate analysis literature, the content validity of the construct compared with the other model's constructs. Therefore, Chin (1998) and Hair et al. (2010) suggested the using of factor loading to examine the content validity. To do that, the items will be deleted if are loaded high with other constructs than their respective ones. Table 1 and 2 showed that all the constructs are significantly loaded higher in their respective variables. Therefore, these results confirmed that the measurement model of this study has content validity.

Construct		B	CI	EOI	EOP	EOR	CUSTOMER	INNOVATIONS	PERSONNEL	IA	ML	OP	SD	SP
							FOCUS		COMMETMENT					
benchmark	B1	0.879	0.813	0.655	0.576	0.665	0.604	0.666	0.657	0.735	0.743	0.546	0.671	0.732
	B2	0.891	0.681	0.556	0.531	0.580	0.502	0.584	0.541	0.631	0.605	0.440	0.608	0.588
	B3	0.898	0.741	0.624	0.573	0.615	0.532	0.622	0.610	0.661	0.643	0.526	0.700	0.596
continous improvement	CI1	0.758	0.910	0.738	0.685	0.725	0.702	0.708	0.706	0.803	0.815	0.607	0.721	0.780
	CI2	0.681	0.850	0.601	0.570	0.569	0.538	0.612	0.629	0.629	0.662	0.493	0.653	0.663
	CI3	0.800	0.902	0.696	0.602	0.692	0.628	0.700	0.713	0.772	0.787	0.590	0.705	0.748
innovativeness	EOI1	0.649	0.703	0.918	0.810	0.793	0.611	0.702	0.682	0.650	0.658	0.535	0.646	0.642
	EOI2	0.642	0.731	0.933	0.808	0.832	0.608	0.689	0.673	0.675	0.685	0.541	0.615	0.700
	EOI3	0.625	0.692	0.921	0.800	0.792	0.572	0.668	0.662	0.635	0.648	0.534	0.640	0.656
proactiveness	EOP1	0.588	0.669	0.846	0.915	0.802	0.515	0.657	0.636	0.642	0.625	0.495	0.618	0.588
	EOP2	0.558	0.599	0.735	0.902	0.776	0.496	0.582	0.554	0.575	0.576	0.472	0.535	0.548
risk taking	EOR1	0.594	0.684	0.795	0.820	0.891	0.543	0.614	0.602	0.589	0.633	0.532	0.541	0.587
	EOR2	0.581	0.629	0.772	0.710	0.869	0.499	0.586	0.586	0.627	0.614	0.450	0.545	0.552
	EOR3	0.673	0.663	0.732	0.758	0.878	0.484	0.596	0.591	0.590	0.613	0.519	0.617	0.523
customer fucus	EXC1	0.495	0.584	0.563	0.487	0.485	0.902	0.599	0.619	0.573	0.644	0.578	0.567	0.673
	EXC2	0.540	0.616	0.587	0.503	0.538	0.930	0.651	0.633	0.610	0.703	0.618	0.584	0.680
	EXC3	0.597	0.663	0.562	0.486	0.510	0.822	0.709	0.750	0.635	0.690	0.612	0.680	0.657
innovations	EXI1	0.654	0.721	0.670	0.622	0.624	0.700	0.923	0.789	0.692	0.732	0.588	0.651	0.685
	EXI2	0.640	0.701	0.709	0.652	0.643	0.671	0.926	0.728	0.675	0.716	0.601	0.649	0.686
	EXI3	0.675	0.705	0.700	0.638	0.639	0.703	0.949	0.814	0.682	0.747	0.592	0.690	0.716
personel commitment	EXP1	0.629	0.705	0.654	0.615	0.599	0.705	0.767	0.899	0.665	0.720	0.623	0.717	0.684
	EXP2	0.655	0.744	0.699	0.642	0.644	0.706	0.801	0.917	0.687	0.725	0.585	0.690	0.727

Construct		B	CI	EOI	EOP	EOR	CUSTOMER FOCUS	INNOVATIONS	PERSONNEL COMMETMENT	IA	ML	OP	SD	SP
			EXP3	0.548	0.640	0.627	0.527	0.557	0.655	0.707	0.874	0.602	0.670	0.620
	EXP4	0.594	0.655	0.612	0.552	0.605	0.636	0.696	0.878	0.630	0.672	0.550	0.599	0.636
information & analysis	IA1	0.682	0.717	0.628	0.578	0.606	0.631	0.651	0.673	0.903	0.733	0.533	0.752	0.732
	IA2	0.687	0.749	0.653	0.631	0.632	0.634	0.672	0.667	0.920	0.750	0.547	0.734	0.777
	IA3	0.712	0.801	0.645	0.620	0.627	0.609	0.673	0.637	0.903	0.742	0.515	0.697	0.733
leadership	ML1	0.672	0.778	0.669	0.625	0.659	0.692	0.724	0.699	0.713	0.925	0.631	0.683	0.762
	ML2	0.671	0.781	0.649	0.592	0.621	0.710	0.698	0.713	0.724	0.931	0.647	0.689	0.785
	ML3	0.693	0.748	0.657	0.606	0.645	0.703	0.724	0.693	0.784	0.895	0.572	0.668	0.782
orgnization performance	ML4	0.699	0.802	0.643	0.590	0.645	0.699	0.715	0.744	0.754	0.894	0.552	0.739	0.794
	OP1	0.470	0.541	0.511	0.463	0.473	0.637	0.579	0.582	0.531	0.628	0.849	0.535	0.561
	OP2	0.490	0.521	0.438	0.408	0.447	0.532	0.514	0.523	0.466	0.510	0.859	0.509	0.486
service design	OP3	0.449	0.511	0.495	0.424	0.470	0.608	0.525	0.531	0.489	0.542	0.841	0.487	0.533
	OP4	0.521	0.583	0.518	0.504	0.536	0.532	0.532	0.618	0.492	0.544	0.838	0.543	0.507
	SD1	0.676	0.720	0.625	0.580	0.588	0.648	0.627	0.682	0.675	0.685	0.592	0.910	0.712
strategic planing	SD2	0.681	0.706	0.626	0.581	0.589	0.617	0.671	0.668	0.784	0.706	0.528	0.915	0.701
	SP1	0.644	0.727	0.636	0.570	0.554	0.677	0.666	0.701	0.735	0.761	0.548	0.701	0.874
	SP2	0.656	0.754	0.629	0.515	0.546	0.677	0.673	0.700	0.721	0.768	0.529	0.711	0.895
	SP3	0.637	0.735	0.654	0.587	0.571	0.661	0.675	0.638	0.716	0.748	0.554	0.650	0.910
	SP4	0.643	0.728	0.653	0.563	0.579	0.692	0.649	0.646	0.764	0.781	0.573	0.701	0.891

The Convergent Validity

The convergent validity is the degree of a group of items converges to measure a specific variable (Hair et al., 2010). In SEM literature, it can be confirmed by testing the composite reliability, the loading, and the average variance extracted (AVE). To consider the items are highly loaded and statistically significant, factor loading should at least 0.7, AVE is at least 0.5, and the composite reliability is at least 0.7. Table 3 shows that all these criteria have been achieved and confirmed. Therefore, the results of the outer model (measurement model) have suitable convergent validity (Bagozzi & Yi, 1988).

Construct	Items	Loadings	Cronbach's Alpha	CR ^a	AVE ^b
benchmark	B1	0.879	0.867923	0.9189	0.790668
	B2	0.891			
	B3	0.898			
continous improvement	CI1	0.910	0.865874	0.917923	0.788639
	CI2	0.850			
	CI3	0.902			
innovativness	EOI1	0.918	0.914748	0.946233	0.854367
	EOI2	0.933			
	EOI3	0.921			

Construct	Items	Loadings	Cronbach's Alpha	CR ^a	AVE ^b
proactiveness	EOP1	0.915	0.789038	0.904484	0.825632
	EOP2	0.902			
	EOR1	0.891			
risk taking	EOR2	0.869	0.853571	0.911106	0.773493
	EOR3	0.878			
	EXC1	0.902			
customer focus	EXC2	0.930	0.861092	0.915899	0.784475
	EXC3	0.822			
	EXI1	0.923			
innovations	EXI2	0.926	0.925239	0.952558	0.870028
	EXI3	0.949			
	EXP1	0.899			
personel commitment	EXP2	0.917	0.91443	0.939732	0.795904
	EXP3	0.874			
	EXP4	0.878			
information & analysis	IA1	0.920	0.894632	0.934385	0.826001
	IA2	0.903			
	IA3	0.903			
leadership	ML1	0.920	0.932007	0.951557	0.830865
	ML2	0.903			
	ML3	0.894			
organization performance	ML4	0.849	0.868882	0.910411	0.717575
	OP1	0.849			
	OP2	0.859			
service design	OP3	0.841	0.799055	0.908687	0.832655
	OP4	0.838			
	SD1	0.910			
strategic planning	SD2	0.915	0.914753	0.93995	0.7965
	SP1	0.874			
	SP2	0.895			
	SP3	0.910			
	SP4	0.891			

The Discriminant Validity

The literature of SEM defined the discriminant validity as the degree of items can distinguish a construct from other model's constructs. According to Compeau et al. (1999), items of each construct should have variances among them more than with other constructs in the model. Table 4 shows that the diagonal line of values that contain the square root of AVE and below it there are the correlations of the constructs. To examine the discriminant validity, the values of the diagonal line should be compared with other off diagonal ones. As we can see in the table, the values of the diagonal line are higher than others in their respective columns and

rows and therefore confirmed the discriminant validity of the model based on Fornell and Larcker's (1981) criterion.

	B	CI	CUSTOMER FOCUS	EOI	EOP	EOR	IA	INNOVATIONS	ML	OP	PERSONNEL COMMETMENT	SD	SP
B	0.889												
CI	0.842	0.789											
CUSTOMER FOCUS	0.617	0.705	0.784										
EOI	0.691	0.767	0.646	0.854									
EOP	0.631	0.699	0.557	0.872	0.826								
EOR	0.700	0.749	0.579	0.872	0.868	0.773							
IA	0.763	0.832	0.687	0.707	0.671	0.684	0.826						
INNOVATIONS	0.704	0.760	0.741	0.742	0.683	0.681	0.732	0.933					
ML	0.750	0.853	0.769	0.718	0.662	0.705	0.816	0.785	0.912				
OP	0.570	0.637	0.683	0.581	0.532	0.570	0.585	0.636	0.659	0.847			
PERSONNEL COMMETMENT	0.681	0.770	0.758	0.727	0.656	0.674	0.725	0.834	0.782	0.667	0.892		
SD	0.744	0.781	0.693	0.685	0.636	0.645	0.800	0.712	0.762	0.613	0.739	0.912	
SP	0.723	0.825	0.759	0.720	0.626	0.630	0.823	0.746	0.857	0.618	0.752	0.774	0.892

The Inner Model (Structural Model), and Hypotheses Testing

Testing the Direct Hypotheses

After testing the validity and reliability of the construct, the next step is to examine in the inner model through hypotheses testing by running Algorithm and Bootstrapping in PLS. Figure 2 and Table 5 illustrated the results.

The Results of the Inner Structural Model

Hypothesis	Hypothesis	Path Coefficient	Standard Error	T Value	P Value	Decision
H1	TQM -> OP	0.217	0.105	2.065	0.020	Supported
H2	OE -> OP	0.526	0.105	5.000	0.000	Supported

*:p>0.05; **:p>0.01; ***:p>0.01

Figure 2 and Table 5 show that all the two hypotheses have positive and significant results at the 0.001 level of significance ($\beta=0.130$, $t= 2.065$, $p<0.001$), ($\beta=0.526$, $t= 5.000$, $p<0.001$) Respectively. Accordingly, these outcome supported the hypotheses of the study H1, H2

Predictive Relevance of the Model

R-square, cross-validated redundancy and cross-validated communality were employed to test the predictive power of the model. According to Cohen (1988), values of R-square are substantial with 0.26, moderate with 0.13, and weak with 0.02. All values in the table of R-square are considered substantial. Cross-validated redundancy and cross-validated communality are the medium to assess the model's quality. To extract them, blindfolding procedure in PLS was employed. Their values should be more than zero to say that the model has predictive quality (Fornell & Cha, 1994). Table 7 shows values more than zero and therefore confirmed that the model has prediction quality.

Predictive Quality Indicators of the Model

Variable	Variable Type	R square	Cross-Validated Communality	Cross-Validated Redundancy
Organizational Performance (OP)	Endogenous	0.5	0.718	0.373

Goodness of Fit (GOF) of the Model

According to Wetzels et al. (2009), GoF can be confirmed based on the criteria: (small =0.1, medium =0.25, large =0.36). Table 8 below shows that the GoF value was 0.613 which considered large value.

Construct	R Square	Average Variance Extracted	Goodness of Fit
Organizational Performance	0.524	0.718	0.613

Discussion and Conclusion

This purpose of the study to examine the effect of TQM, organizational excellence, Entrepreneurial orientation on organizational performance. Due to the inconsistency in the literature of the effect TQM, organizational excellence and Entrepreneurial orientation on organizational performance. One moderator variables have been proposed as mechanisms to explain this relationship in different context. These variables are organizational excellence. As expected from the nature and the integration between variables, all hypotheses have been confirmed. In addition, in consistent with other previous studies, all variables has been found to have a positive and significant effect on organizational performance ($\beta=0.130$, $t= 2.065$, $p<0.001$), ($\beta=0.526$, $t= 5.000$, $p<0.001$).

In line with other previous studies, TQM was found to have a positive and significant effect at 0.001 level of significance ($\beta=0.130$, $t= 2.065$, $p<0.001$), (Chong & Rundun, 2004; Hassan & Kerr, 2003). This study has many theoretical contributions. Besides examining the positive effect among variables due to the inconclusiveness finding in the previous literature. In addition, this study fills the gap in the literature by examining the moderating effect of

Entrepreneurial orientation on the relationship between TQM and organizational excellence on organizational performance. The results of this study will urge other researchers to investigate and examine other factors that may play some roles in these relationships. The framework of this study is a unique framework which suggested new relationships which never studied before. In practice, the findings of this study have different practical implications. This study clears the way to managers and decision makers to involve TQM and excellence in their organizations.

There are some limitations of this study. Similar to other previous research surveys, the data collected through self-reported which considered one of common method bias (Thornton, 2006).

Cross-sectional as the research design of this study was used which considered another limitation. The biasness may also generate from the self-reported answers where the respondents translate their perceptions through the questionnaire. Therefore, future researches should include the mixed method design. In addition, longitudinal researches should be considered to test the effects of TQM, organizational Excellence and Entrepreneurial orientation on organizational performance in different point of times.

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