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Total Quality Management Behaviors And Their Impact On The Organization Through Information Technology As A Mediator

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Abstract:

This research aims to identify the impact of Total Quality Management (TQM) (Empowerment), with dimensions (Top Management, Teamwork and Customer Satisfaction)) on the development of the Organization by confirmation on Information Technology as a mediator to increase performance of the Organization. The Iraqi Ministry of Industry take care interested in the performance of organization. A field study was conducted on ready-to-wear employees in Najaf / Iraq. It is one of the most effectiveness factories in the performance of Iraqi ready-made clothes. The results proved that there is a significant impact of total quality management on organizational development and that this impact is positive when applying (information technology) as a mediator.

Keywords: Total quality management, organization, information technology.

1. Introduction

The whole world confirm for is the important impact of total quality management on (OR) the endless competition of the organization in a highly turbulent and complex environment and the impact of the dimensions of total quality management on organization through information technology as a mediator (Li et al., 2021; Kadhim & Ahmad., 2019). Refers Bieback et al., (2019) whether the disturbance is natural or artificial. There are many problems facing the expansion of the organization; Such as the absence of highly productive institutions, the absence of multiple institutions that

support the government, all time follow organization the mind the absence of government support for organizations. The importance of the study: For our study in this research, this is the long-term survival of the organization and the impact of the dimensions of total quality management on it (Hogu et al., 2022). The study aims to build organizations that are able to produce if they are exposed to environmental problems that impact their development them and there are organizations that must be taken care of and developed because of the knowledge they possess and that building such organizations takes decades. There are many difficulties and complications in the formation or first difficulty in the life cycle of organizations (Susanto et al., 2020; Kadhim & Ahmad., 2021). While focus Paais & Pattiruhu, (2020) the environmental impacts that can end the lives of these organizations due to natural or environmental disasters or any emergency may occur due to expected changes to the wrath of nature and possible future global change. These problems have caused the complete destruction of these organizations and they must be reproduced and planted in multiple places (Maulana et al., 2022; Kadhim & Ahmad., 2022). According to Kim et al., (2020) these parts that constitute information technology as a mediator factor that cannot be imitated or the head of intellectual property, materials, machines, numbers, strategic thinkers, software and creative methods of production (Mountcastle et al., 2020). Therefore, we are here to create a new organization through the impact of the dimensions of total quality management and the role of information technology as an intermediary factor (Jendia, 2019). Which led to the beginning of a new world of digital organizations that believe in the impact of the dimensions of total quality management on them, as the new organization has high productivity, high efficiency and improved production (Chen et al., 2020; Ahmad & kadhim., 2020). You must take a healthy part of the organization and follow up on its development and benefit from it and do some administrative work to integrate the parts between them through managerial thinking, sometimes called organizational

problem cases of organizational performance in order to achieve the goals and objectives of the organization integration and reduce tensions and organizational conflict, and if found to reach synergies between parts of the emerging organization in the beginning of its formation, there were some giant companies that relied on the use of modern technology but used new strategies in new environments (Chen et al., 2020; Albadry et al., 2020). As happened in the France telecom giant when it created new organizations and the France National communications organization. (Abdalla et al., 2020).

Accordingly , this research aims to identify the impact of Total Quality Management (TQM) (Empowerment (EM), with dimensions (Top Management (TM), Teamwork (TE) and Customer Satisfaction (CS)) on the development of the Organization (OR) by confirmation on Information Technology (IT) as a mediator to increase performance of the Organization (OR).

2. Literature Review

Total Quality Management

The application of total quality management programs in organizations has become a necessity, and a method that helps organizations survive and continue under market conditions and the financial and economic situation (Ross, 2017). The approach to total quality management is considered one of the modern trends in management sciences, and it has gained popularity because of its ability to develop the performance of organizations, by building a culture of quality in its comprehensive sense to improve organizations' management systems (Goetsch & Davis, 2016). Therefore, adopting the total quality approach as an approach to improving management performance may be the real step. Towards positive change in changing the business management philosophy and achieving customer satisfaction. Total quality management is a new administrative application in the industrial and commercial world. Indeed, total quality management includes many sectors and

activities in developed countries (Bajaj et al., 2018). The Federal Quality Institute defines it as: "Doing the right work, correctly the first time, with the necessity of relying on the opinions of workers, (Beckford, 2016). beneficiaries of services, and goods regarding the extent of performance improvement." Oakland defined it as: "A method for improving the effectiveness and flexibility of work in general, and it is a method of organization that includes the entire facility, including all departments, activities, and employees at all levels." (Mizuno, 2020).

2.1. Dimensions Of Total Quality Management

Total quality management includes four dimensions : Empowerment (EM), Top Management (TM), Teamwork (TE), and Customer Satisfaction (CS) , which conflict in nine hypotheses (Khanam et al., 2013) .

2.1.1. Empowerment (EM)

Hypothesis 1 : Relationship between empowerment (EM) and information technology (IT)

The empowerment dimension is considered one of the important factors for organizations and requires its removal from development because it is an important factor for organizational performance, after proving the impact of empowerment in total quality management on information technology as a mediating factor (Jendia, 2019). Hence, all obstacles that stand in the way of organizational development and achieving organizational performance must be eliminated. the subject.

And to identify the relationship of empowerment in information technology to organizational performance, relying on the data obtained from the questionnaire, which was applied in the women's clothing factory in Najaf in Iraq, and a seven-point Likert scale was used, and for statistical analysis (SPSS) and (Smartpls) are used. (Abdullah et al., 2020).

2.2.2. Top Management (TM)

Hypothesis 2 : Relationship Between Top Management (TM) And Information

Technology (IT)

Top management is one of the important factors for organizations and requires its removal from development because it is an important factor for organizational performance, after proving the influence of senior management in total quality management on information technology as an intermediary factor (Kolaric, 2019). Hence, all obstacles that stand in the way of organizational development and achieving performance must be eliminated. Effective organizational. A seven-point Likert scale was used, and for statistical analysis, (SPSS) and (Smartpls) are used (Obite et al., 2021).

2.1.3. Teamwork (TE)

Hypothesis 3 : Relationship Between Teamwork (TE) And Information Technology (IT)

Teamwork is one of the important factors for organizations and requires its removal from development because it is an important factor for organizational performance, after proving the impact of teamwork in total quality management on information technology as a mediating factor (Kocherova et al., 2019). Hence, all obstacles that stand in the way of development must be eliminated. Organizational and achieving effective organizational performance. A seven-point Likert scale was used, and for statistical analysis, (SPSS) and (Smartpls) are used (Jachson et al., 2020).

2.1.4. Customer Satisfaction (CS)

Hypothesis 4 : Relationship Between Customer Satisfaction (CS) And Information Technology (IT)

Customer satisfaction is one of the important factors for organizations and requires its removal from development because it is an important factor for organizational performance, after proving the effect of teamwork in total quality management on information technology as a mediating factor (Kobayashi et al., 2019). Hence, all

obstacles that stand in the way of development must be eliminated. Organizational and achieving effective organizational performance. A seven-point Likert scale was used, and for statistical analysis, (SPSS) and (Smartpls) were used (Raducan et al., 2020).

2.1.5. Empowerment (EM)

Hypothesis 5 : Relationship Between Empowerment (EM) And Organization (OR)

The empowerment dimension is considered one of the important factors for organizations and requires its removal from development because it is an important factor for organizational performance, after proving the impact of empowerment in total quality management on the organization (Kobayashi et al., 2019). Hence, all obstacles that stand in the way of organizational development and achieving organizational performance must be eliminated. Effective, and reliance is placed on the data obtained from the questionnaire, which was applied in the women's clothing factory in Najaf, Iraq. A seven-point Likert scale was used, and for statistical analysis, (SPSS) and (Smartpls) are used (Stephens & Eaton, 2020).

2.1.6. Top Management (TM)

Hypothesis 6 : Relationship Between Top Management (TM) And Organization (OR)

Top management is one of the important factors for organizations and requires its removal from development because it is an important factor for organizational performance, after proving the influence of senior management in comprehensive quality management on the organization (Lee & Louis, 2019). Hence, all obstacles that stand in the way of organizational development and achieving organizational performance must be eliminated. the subject. A seven-point Likert scale was used, and for statistical analysis, (SPSS) and (Smartpls) were used (Le & Hasegawa, 2019).

2.1.7. Teamwork (TE)

Hypothesis 7 : Relationship Between Teamwork (TE) And Organization (OR)

Teamwork is one of the important factors for organizations and requires its removal from development because it is an important factor for organizational performance, after proving the impact of teamwork in total quality management on the organization (Hou et al., 2019). Hence, all obstacles that stand in the way of organizational development and achieving performance must be eliminated. Effective organizational. A seven-point Likert scale was used, and for statistical analysis, (SPSS) and (Smartpls) were used (Alzeeb et al., 2020).

2.1.8. Customer Satisfaction (CS)

Hypothesis 8 : Relationship Between Customer Satisfaction (CS) And Organization (OR)

Customer satisfaction is one of the important factors for organizations and requires its removal from development because it is an important factor for organizational performance, after proving the impact of customer satisfaction in total quality management on the organization (Hou et al., 2019). Hence, all obstacles that stand in the way of organizational development and achieving performance must be eliminated. Effective organizational. A seven-point Likert scale was used, and for statistical analysis, (SPSS) and (Smartpls) were used (Bello et al., 2020).

2.2. Information Technology (IT)

Information technology is considered an intermediary factor that contributes to improving organizational performance and improving efficiency. The results of the questionnaire were used for employees for the purpose of statistical analysis of the relationships (Sharman et al., 2020).

2.1.9. Teamwork (TE)

Hypothesis 9 : Relationship Between Information Technology (IT) And Organization (OR)

Information technology is one of the important factors for organizations and requires its removal from development because it is an important factor for organizational performance, after proving the impact of information technology in comprehensive quality management on the organization (Hassan et al., 2021). Hence, all obstacles that stand in the way of organizational development and achieving performance must be eliminated. Effective organizational. A seven-point Likert scale was used, and for statistical analysis, (SPSS) and (Smartpls) were used (Itatani et al., 2019).

2.3.Organization (OR)

The organization is a dependent variable that is affected by total quality management through the mediating role of information technology and its reflection on performance and efficiency (Armstrong et al., 2020). The relationships were tested based on data for a questionnaire distributed to a sample of workers (Namekawa et al., 2019)

3 Research Methodology

The literature on the study topic was identified to identify the primary pilot study. Dimensions the total quality management and their impact on the organization through information technology as a mediator factor wherever possible through the conceptual new framework. Most of the previous studies show a positive relationship between the dimensions of total quality management and the organization (Diether & Willing, 2019). Most studies have shown that the organization may improve when the dimensions of total quality management are applied to it. A total of 288 questionnaires were distributed to employees in the ready-made garment factory in Najaf/Iraq. The questionnaire was distributed to employees representing about 97% of the response rate, and the correct answers were 280 was 5 missing and 3 outliers. In this study, the SPSS and SmartPLS system will be used to analyze the determine results to the hypotheses. Shown in Figure 1, the search new framework (Bargues et

al., 2019).

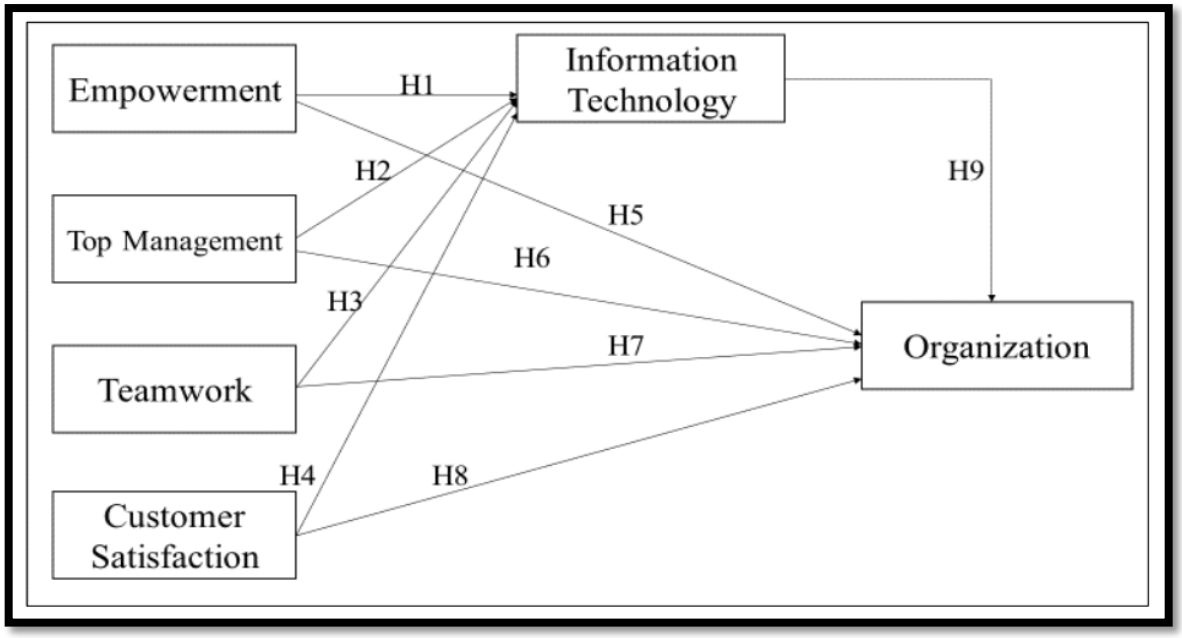

Figure 1: Study Model

4. Results study

This section and is composed of two sections. First is the (p-value) that clear the reliability and validity of the questionnaire. Second is the (t-value) that explained the relationship amoing variants (Caldwell et al., 2020).

4.1 Measurement model

This study analyses the (p-value) to verify the validity and reliability of the research. Figure 2 shows that factors loading is more than 0.8. Thus, reliability has been assessed (Čehulić, 2021). Table 1, shows that (7) the values are among achieve goals. (Ścieżyńska et al., 2019).

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Table 1: Reliability and validity

Items	Cronbach's Alpha		Composite Reliability	Average Variance Extracted (AVE)
CS	0.850		0.918	0.738
EM	0.867		0.802	0.325
IT	0.849		0.898	0.643
OR	0.893		0.896	0.603
TE	0.915		0.930	0.328
TM	0.819		0.848	0.419

The discriminant validity authority is to force the of the difference between the variants of concepts and confirm on the importance of research in know the results. (Diana et al., 2021). Shown Figure 2.

Table 2: Discriminant validity

Items	CS	EM	IT	OR	TE	TM
CS	0.859					
EM	0.019	0.970				
IT	0.068	0.152	0.802			
OR	0.155	0.064	0.223	0.776		
TE	0.153	0.146	0.008	0.110	0.872	
TM	0.003	0.177	0.197	0.077	0.084	0.948

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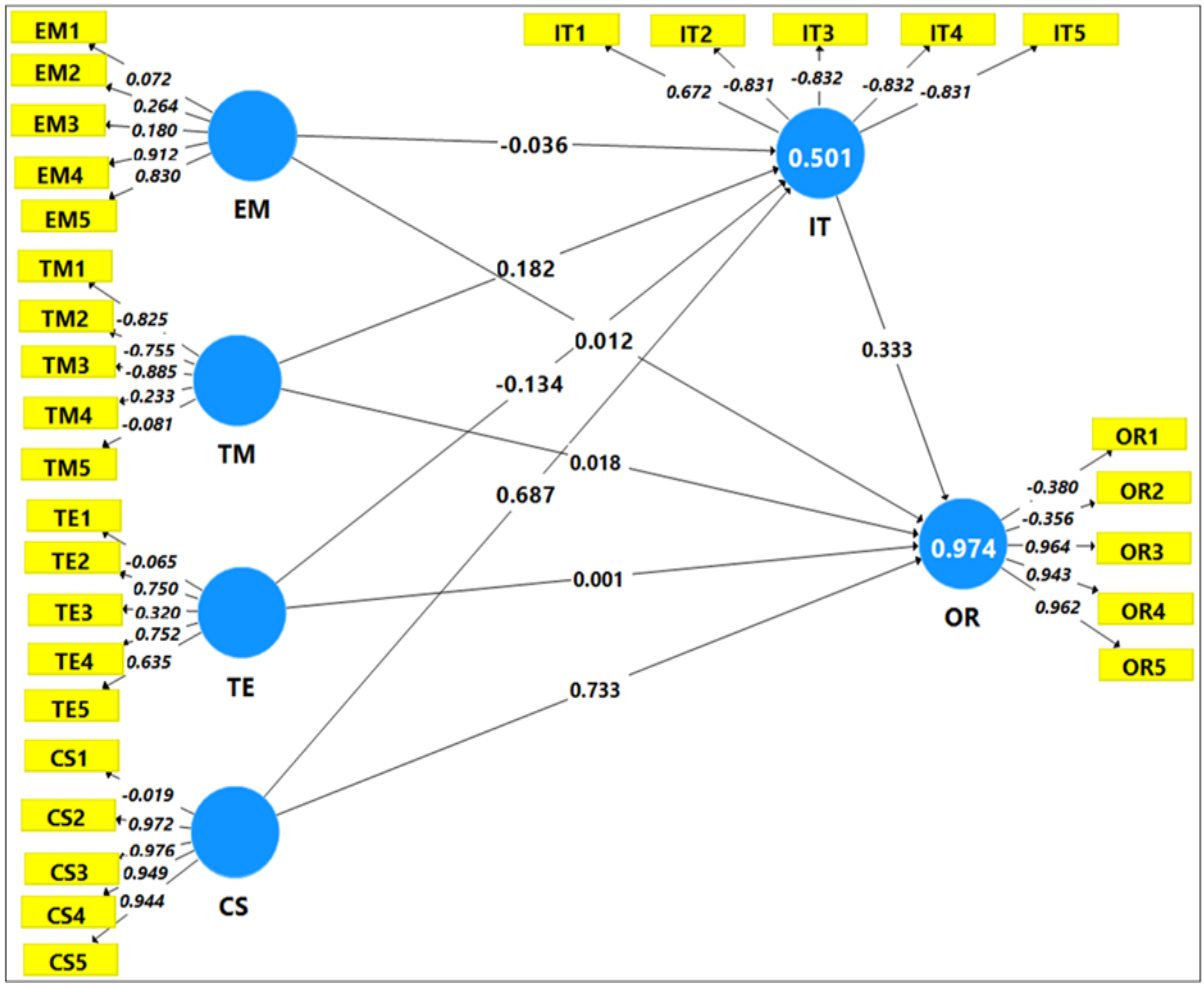
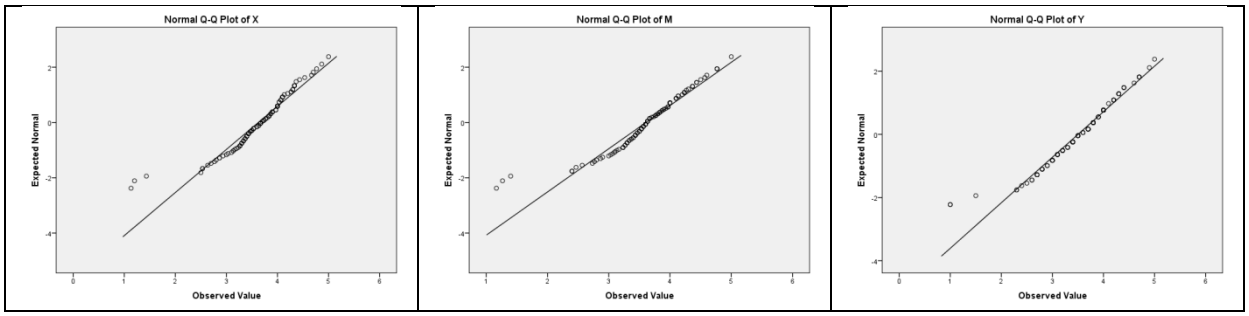


Figure 2: Beta-value

4.3 Linearity

Table 3 indicates a linearity test for the data, and the results indicate that the data follows linearity

Table 3: Linearity of the Data



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4.3 Normality

Table 4 indicates that the data had skewness and kurtosis values between (-1.96) and (+1.96), and this confirms that it follows a normal distribution.

Table 4: Normality Test

Variable	min	max	skew	kurtosis
EM1	1.000	5.000	-.866	.827
EM2	2.000	5.000	-.470	-.179
EM3	1.000	5.000	-.905	.723
EM4	1.000	5.000	-.664	.224
EM5	1.000	5.000	-.961	.994
EM6	1.000	5.000	-1.080	1.244
EM7	1.000	5.000	-.906	1.266
EM8	1.000	5.000	-.969	.832
EM9	1.000	5.000	-.427	.183
EM10	1.000	5.000	-.648	.205
EM11	1.000	5.000	-.464	.204
EM12	1.000	5.000	-.901	1.032
EM13	1.000	5.000	-.935	1.551
EM14	1.000	5.000	-.620	.710
EM15	1.000	5.000	-.447	-.136
EM16	2.000	5.000	-.242	-.300
EM17	1.000	5.000	-1.083	1.757
EM18	1.000	5.000	-1.113	1.888
EM19	2.000	5.000	-.405	-.147
EM20	1.000	5.000	-1.034	1.509
				136.300
IT1	1.000	5.000	-.648	.458
IT2	1.000	5.000	-.427	.410
IT3	1.000	5.000	-.969	1.861
IT4	1.000	5.000	-.906	2.830
IT5	1.000	5.000	-.678	.501
Multivariate				6.090
OR1	1.000	5.000		.957
OR2	2.000	5.000		-.054
OR3	1.000	5.000		1.069
OR4	1.000	5.000		.142
OR5	1.000	5.000		.948
Multivariate				11.439

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4.3 Structural model

The relationship in this research to know results of the hypothesis. Table 5 reveals EM has a negative effect on IT and this relationship is non-significant at 0.05. While the relationship between TM and IT is positive and, the relationship between TE and IT is. negative is at 0.05, the relationship between CS and IT positive in the study (Chen & Antonelli, 2020). Table 3 reveals EM has a positive effect on OR and this relationship is significant at 0.05. While the relationship between TM and OR is also positive and the relationship between TE and OR is also positive significant is at 0.05 and, the relationship between CS and OR also positive is significant at 0.05 (Szliszka et al., 2009). Shown, Figure 3.

Table 4: Structural Relationship

Hypothesis	Relationship	Beta-value	t-value	Result
H1	EM → IT	-0.036	0.507	Non-Accepted
H2	TM → IT	0.182	0.966	Accepted
H3	TE → IT	-0.134	1.353	Non-Accepted
H4	CS → IT	0.687	8.755	Accepted
H5	EM → OR	0.282	0.813	Accepted
H6	TM → OR	0.018	1.058	Accepted
H7	TE → OR	0.001	0.070	Accepted
H8	CS → OR	0.733	19.556	Accepted
H9	IT → OR	0.333	6.815	Accepted

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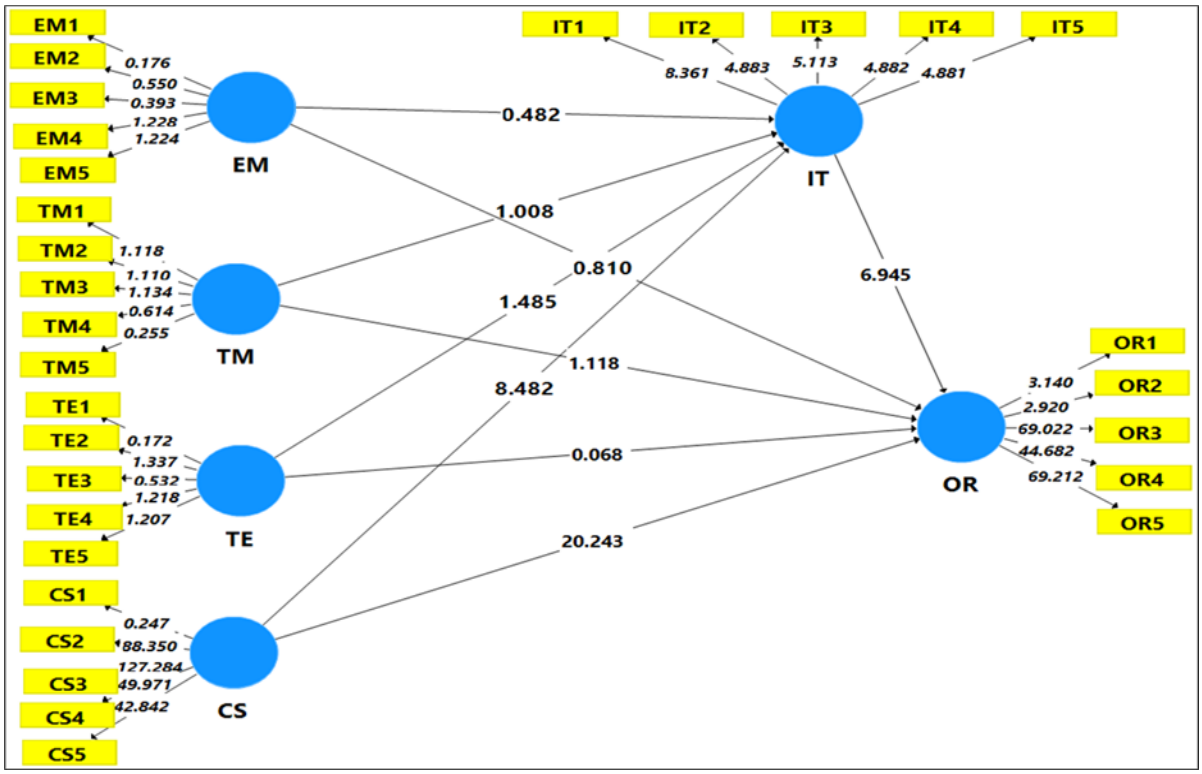

Figure 3: Structural model

5. Discussion

The goal of applying the dimensions of total quality management (empowerment, top management, teamwork, and customer satisfaction) is to improve the organization. The purpose of this study is to find out whether information technology as a mediator helps to implement the dimensions of total quality management in organizations by employees, which will increase the performance of organizations. Studies have proven that total quality management has a positive impact on organizational performance (Pantouvakis, A., & Karakasnaki, 2017) Other studies have also proven that the use of technology improves organizational performance (Khin & Ho, 2018) The relationship between total quality management and technology is positive (Tasleem et al., 2019). Accordingly, It has been proven that the dimensions of total

quality management improve the organization. Confirming the dimensions of total quality management has become necessary to avoid problems. This paper aims to propose a new framework that helps system administrators implement the dimensions of total quality management to improve the organization's performance. There were 9 hypotheses, 2 of which were non-supported and 7 were supported.

6. Conclusion

That production managers should focus on the dimensions of total quality management the dimensions of total quality management are suitable for the development of organizations in Iraq. The current study experimentally demonstrated the relationship between the dimensions of total quality management and the organization the found that 7 relationships are positive and supported and, 2 are non-supported. This study contributed to the literature by applying the dimensions of total quality management to the organization in Iraq. At the same time, information technology can be verified as a mediator between the dimension's total quality management and organization.

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