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IMPROVE ORGANIZATIONAL PERFORMANCE BY IMPLEMENTING THE DIMENSIONS OF TOTAL QUALITY MANAGEMENT WITH RESPECT TO THE MEDIATING ROLE OF ORGANIZATIONAL INNOVATION CAPABILITY

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Abstract: The results of the research show that the implementation of total quality management can improve processes and public participation in doing the best work in the organization, which in turn can increase market share, increase profits, increase product sales, reduce Waste and rework have a positive effect. The purpose of this study was to investigate the effect of total quality management on organizational performance with respect to the mediating role of organizational innovation capability in Iran Khodro Company. The present study was applied based on the purpose and survey-correlational in terms of data collection. Accordingly, after studying the theoretical foundations and research background in the field of total quality management, organizational performance and organizational innovation capability, effective dimensions were identified and introduced in the form of a conceptual model. The statistical sample of this research consisted of 222 middle managers of Iran Khodro Company's headquarters. A researcher-made questionnaire was used to collect research data, the validity and reliability of which were confirmed. In order to fit the conceptual model of the research and test the research hypotheses, the structural equation

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modeling method was used in Smart PLS software. The results of testing research hypotheses showed that the dimensions of total quality management (hard quality management and soft quality management) have a positive and significant effect on organizational performance and organizational innovation capability. Organizational, the organizational innovation capability variable has an influential mediating role.

Keywords: Total quality management; hard quality management; Soft quality management; Organizational performance; Organizational innovation capability.

JEL CODES: M1, O32.

1. Introduction

Today, high-quality products have become one of the largest tools for organizations to satisfy customers and then make a profit (Delgoshaei et al., 2004). In this regard, total quality management (TQM) is one of the most popular systems that organizations use to achieve a high level of quality (Goetsch & Davis, 2014). Implementing comprehensive quality management can improve processes and public participation Individuals get better at doing things in the organization, which in turn can have a positive effect on increasing market share, increasing profits, increasing product sales, reducing waste, and rework (Adeoti, 2011). Total quality management seeks to restructure, continually improve processes, and empower the organization to compete in dynamic markets (Sirisan et al.., 2020). In this way, comprehensive quality improvement programs, by following a special order in the structure, technology, service production processes and support, create the necessary change and transformation. To this end, a process for continuous improvement should be developed and supported by all members of the organization (Yusr, 2016). In almost all definitions of total quality management, there is a reference to the soft and hard aspects of this concept (Vouzas, 2004). Soft total quality management is more with management concepts and principles such as leadership, staff development and organizational culture It is related and in its concept is very close to these aspects of the organization, while strict total quality management refers more to the tools and techniques of quality improvement and control in the organization (Thiagaragan et al., 2001). In fact, total quality management is a strategy that can improve learning and increase the competitive advantage of organizations. Rapid market changes and reduced product life expectancy are important challenges in competitive markets that have led organizations to take advantage of organizational innovation. Innovation is the most important source of competitive advantage, because it can lead to the production of new products that better meet the needs of customers, can improve the quality of existing products, or can reduce production costs of products requested by customers (Zeng et al., 2015). Mushtaq et al. (2011)

concluded that TQM practices are as interconnected as different types of innovation in an area, as well as innovation through non-financial performance metrics and tools in an organization, such as product and market innovation indirectly on an organization's performance. Affect. One of the important fields of research in quality management is to examine the impact of its dimensions on organizational performance, and since innovation is a fundamental basis for sustainable competitive advantage, in recent years many studies have tried to clarify the relationship between TQM, innovation and the organization has performed in various industries (O'Neill et al., 2016). The automotive industry is one of the industries that have a set of characteristics such as complex products, high importance of quality, safety requirements, wide sales market and significant employment rate, so company's active in this industry to achieve their goals. Optimal response to customer needs requires the implementation of categories such as total quality management and organizational innovation. Given the competitive environment of the existing business, quality and innovation are among the most important competitive advantages in this industry. It has been discussed especially in the automotive industry of industrialized countries. Iran Khodro Automotive Company, as one of the leading companies in the production of passenger cars, etc., has faced a quality challenge in recent years and has tried to strengthen its innovation capabilities, adopt a suitable strategy and improve performance and effectiveness. Take a step. Accordingly, the present study seeks to answer the question that what are the important dimensions of total quality management, including hard and soft total quality management, considering the mediating role of organizational innovation capability on the organizational performance of Iran Khodro Company?

2. Literature Review

2.1 Total quality management

Total quality management is an approach to meeting the needs of both internal and external customers, in which the customer is considered as the most important factor in any process (Bazrkar et al., 2017).one recent definition defines TQM as "TQM is a system based on continuous feedback to improve the quality of service products using comprehensive techniques and methods (Zeng et al., 2015). The overall quality management of the structure It is a system that emphasizes the continuous improvement of all internal activities of an organization. The ultimate goal of total quality management is to improve the quality of products and services by improving human resources, existing processes and equipment and at the same time reducing operating costs. Total quality is the development of a philosophical concept that believes that services and a philosophy that believes that services and products, always with the better quality available to internal and external customers of the

organization and intend to take into account the feedback from these customers. (Ahmad et al., 2012) Comprehensive quality management consists of several critical success factors. A review of the literature shows that critical success factors include leadership and commitment of senior management, development Philosophy, quality measurement, optimization, process management, product design, Amo Employee empowerment is employee empowerment, supplier quality management, customer engagement, and satisfaction and information analysis (Foster, 2007). Many perspectives and literature consider total quality management as a universally applicable method. Its main techniques are to provide a set of general governing principles, which are: customer retention, human resource management, management and continuous improvement based on facts. These success factors of TQM can be classified as soft and hard factors (Jackson et al., 2016):

-Soft quality management: Soft total quality management, in the sense of radical transformation of the organization through advanced developments in attitudes, operations, structures and systems, which increases product quality and participation of all employees and includes communication, production, distribution, marketing, planning and training (Cengiz et al., 2014). Lewis et al. (2006) noted that soft TQM factors are related to behavioral aspects and generally to popular aspects. These factors include education, loyalty, leadership, teamwork, empowerment, customer focus and satisfaction, use of human resources, communication with professional suppliers, integration of customer and supplier demands, communication Performance rewards, a culture of quality and social responsibility. Studies show that soft quality management factors are soft behavioral aspects of management (human factor) that include workforce commitment, shared vision, customer focus, team use, staff training, and collaborative relationships with suppliers (Nafei, 2016). Soft quality management factors emphasize human resource management in organizations and also have a special emphasis on the need to change culture (Dawabsheh et al., 2019).

-Hard quality management: Hard total quality management means continuous training in the comprehensive quality management system, which refers to techniques, tools and systems, statistical process control, ISO 9000 series standards, Pareto analysis, matrix diagram, histogram, decision tree diagram, Critical path analysis, has a fishbone diagram (Sirisan et al., 2020). Lewis et al. (2006) concluded in their study that TQMs are system-oriented and can be more easily quantified. In general, these categories are related to optimization, flexibility, quality systems, quality assurance, zero defects, timeliness, continuous improvement and innovation, information and performance measurement, process management, strategic planning, process control and product/service design. Pay. This is supported by someone who has proposed rigid TQM factors including computer-based

technologies, timeliness, technology utilization, and continuous improvement enablers (O'Neill et al., 2016). However, it has been found that rigid TQM tools are quality management tools that include: cause and effect diagrams, dispersion diagrams, dependency diagrams, communication diagrams, sequence diagrams, control diagrams, quality function expansion, potential failure analysis and its effects (Sciarelli et al., 2020).

2.2 Organizational performance

Organizational performance includes almost all goals of competitiveness and production excellence and is related to cost, flexibility, speed, reliability, or quality (Rus et al., 2012). In addition, organizational performance can be defined as an umbrella that encompasses all concepts related to success and the activities of the entire organization. Top-performing organizations have specific characteristics in terms of the organization's vision and missions, goals, strategic thinking, leadership, organizational design, technology, and organizational processes. In a high-performance organization, the main drivers of performance are explained by the mission statement. One of the most important and fundamental characteristics of an organization with superior performance is its mission and vision. Top-performing organizations set clear and measurable goals (Ebrahimi & Sadeghi, 2003). Organizational performance refers to how organizational missions, tasks and activities are performed and the results of their performance (Hajimohammadi et al., 2019). In another definition, organizational performance is achieving or going beyond organizational and social goals and fulfilling the responsibilities of the organization (Busi, 2006). In another definition, organizational performance is an indicator that measures how to achieve the goals of the organization or institution. In the current era, dramatic changes in management knowledge, the existence of an evaluation system has become inevitable, so that the lack of evaluation evaluating the use of resources and facilities, employees, goals and strategies are considered as one of the symptoms of the organization's disease. Every organization desperately needs an evaluation system in order to be aware of the desirability and quality of its activities, especially in complex and dynamic environments (Shin & Kim, 2015).

2.3 Organizational Innovation Capability

The innovative companies have accustomed themselves to developing efficient and effective systems to predict opportunities and use these systems to upgrade themselves and overcome organizational deficiencies (Vafaei et al., 2019) Organizational innovation capability can mean product or process innovation (Pelau & Chinie, 2018). Even the ability to innovate can show as a powerful network in your organization (Pop et al., 2018). In general, the ability to innovate can have

different types, including the ability to innovate in the field of fintech (Omodero, 2021). According to the reviewed scientific literature, it seems that there are two types of approaches to innovation capability: a) an approach that assumes innovation capability in a systemic view and as one of the parts of the organization's system and its patterns are based on data and Outputs are provided with an internal process that leads to innovation; b) an approach that introduces the ability to innovate as a meta-systemic element in any part that can be entered, and has stated the conditions and needs of innovation, regardless of its location. In fact, this view describes the capability of innovation in such a way that by creating the necessary conditions for its establishment, it can be established in any of the organizational subsystems (Sadikoglu & Zehir, 2010). Innovation of a system with innovation capability can be more accepted because paying attention to innovation capability as a part of a system (organization) ensures its survival in the serious processes of the system (organization) to avoid the deployment of innovation in the sector. Organizational causes (Yusr, 2016). Innovation capability depends on other capabilities in the organization. Three of these capabilities, namely operational capability, structural capability and human capability, are very crucial.

2.4 Conceptual model

Zeng et al. (2015) and Ana et al. (2018) found in their studies that the hard and soft dimensions of total quality management have a positive and significant effect on the innovation performance of the organization and are very decisive in the development of innovative capabilities of the organization. Also, the results of research by Sirisan et al. (2020) showed that in the relationship between the components of total quality management and organizational performance improvement, organizational innovation capability has a very important and effective role. According to the issues related to the dimensions of total quality management, organizational performance and innovation capability, as well as the purpose of the present study, the conceptual model of research based on the study of previous research is presented as follows. In this conceptual model, hard quality management and soft quality management variables as dimensions of total quality management, independent variables, organizational performance variable in relation to hard quality management and soft quality management variables and organizational innovation capability, dependent variable and innovation capability variable in this model play the role of a mediating variable.

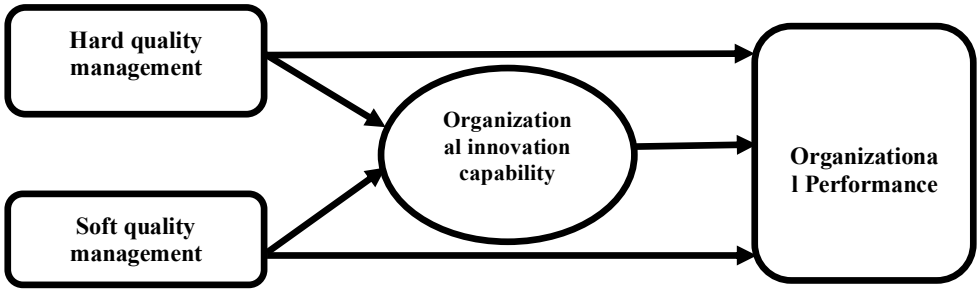

Figure 1 Conceptual model
Source: author's view

2.5 Research Hypotheses

H1: Hard quality management has a positive and significant effect on the organizational performance of Iran Khodro Company.
H2: Soft quality management has a positive and significant effect on the organizational performance of Iran Khodro Company.
H3: Hard-quality management has a positive and significant effect on Iran Khodro's organizational innovation capability.
H4: Soft quality management has a positive and significant effect on Iran Khodro's organizational innovation capability.
H5: The organizational innovation capability has a positive and significant effect on the organizational performance of Iran Khodro Company.
H6: Hard quality management through the organizational innovation capability has a positive and significant effect on the organizational performance of Iran Khodro Company.
H7: Soft quality management through organizational innovation capability has a positive and significant effect on the organizational performance of Iran Company.

3. Methodology and empirical data

The present research is applied in terms of purpose because the purpose of applied research is to develop applied knowledge in a specific field. In other words, applied research is directed towards the scientific application of knowledge and the results of this type of research can help to make better decisions in the study population. Since the present study investigates the effect of total quality management (hard and soft quality management) on organizational performance with respect to the mediating role of organizational innovation capability. In terms of purpose, it is in the category of applied research and in terms of executive method, it is considered a descriptive survey. Because first, it describes and recognizes the current situation of

Iran Khodro Company as the organization under study, and then, through opinion polls and also completing questionnaires, surveys ideas and collects information, and finally analyzes the collected data and measures the amount. And the type of data correlation used statistical tests to assess the relationships between research variables.

3.1 Statistical population and research sample size

A statistical community is a set of people, objects, places, and in general, things that are common to one or more attributes or attributes. A statistical community framework is a list of all members of a community from which a sample is extracted. The statistical population of this research consists of all middle managers of the headquarters of Iran Khodro Company and affiliated companies in Tehran. Since the size of the statistical population is estimated at 523 people, the sample size required for the research was calculated through Cochran's formula at an error level of 5%, which showed that the sample size of the research is 222 people.

3.2 Methods and tools for collecting research data

The research data collection tool in this study was designed as a questionnaire in which the opinions of professors and experts in relation to the items under study in relation to research variables were identified and collected. The Likert scale was used in the mentioned questionnaire and the options were very high, high, medium, low and very low. It is worth mentioning that the present research questionnaire was developed based on the research literature and based on the questionnaires used in the dimensions of total quality management (hard and soft quality management), organizational performance and innovation capability variable. It should be noted that in order to compile this questionnaire, the following questionnaires were used: Comprehensive Quality Management Dimensions Questionnaire taken from the research of Sirisan et al. (2020) and Sciarelli et al. (2020), Organizational Innovation capability Questionnaire taken from Mir et al. (2016). Also, the organizational performance questionnaire was taken from the research of Al-qeed et al. (2018). Continued and in the form of Table 1. The structure of the research questionnaire is displayed based on the variables and the number of items used.

Table 1 Structure of the research questionnaire

Components	Number of questions	Source
Hard Quality Management	8	Sirisan et al. (2020)
Soft Quality Management	9	Sciarelli et al. (2020)
Organizational innovation capability	4	Mir et al. (2016)
Organizational Performance	6	Al-qeed et al. (2018)

Source: author's view

3.2.1 Validity and reliability of research questionnaire

In this research, the formal validity and content validity are examined. Accordingly, in this study, the face validity method was used first. For this purpose, a questionnaire was provided to specialists and experts such as the esteemed supervisor and they will be commented on each question and regarding the evaluation of the relevant goal, and with corrections. The questionnaire was partially approved. Content validity ratio was also used to evaluate the validity of the questionnaire in more detail. Considering that the opinions of 25 experts were used to examine this ratio, the acceptable value of this ratio was determined to be 0.37 based on 20 experts based on the minimum CVR index. The results of examining this ratio in relation to 27 items of the research questionnaire showed that the obtained values are all more than the standard value of 0.37. As a result, it can be said that the content validity of the questionnaire items is confirmed. Also in the present study, Cronbach's alpha method was used to determine the reliability of the measuring instrument. For this purpose, the reliability of the questionnaire was estimated using SPSS software version 23 and Cronbach's alpha method. If this higher estimate is shown in Table (2), it is at least 0.7, which indicates that the questionnaires used have high reliability.

Table 2 Cronbach's alpha coefficients

Components	Number of respondents	Cronbach's alpha
Hard Quality Management	25	0.84
Soft Quality Management	25	0.88
Organizational innovation capability	25	0.80
Organizational Performance	25	0.86

Source: own processing

4. Empirical results

In the present study, a descriptive study of the statistical sample consisted of two parts: analysis of demographic variables and descriptive statistics of research variables.

4.1 Findings of Descriptive Statistics

Descriptive statistics of demographic characteristics

In this section, the situation related to the demographic characteristics of the statistical sample was analyzed. These characteristics included gender status, level of education and work experience of the respondents. It should be noted that considering that the statistical sample size was 222 the questionnaire was distributed

among 230 people and 205 completed questionnaires were collected and the data were analyzed in the descriptive and inferential statistics section based on 205 completed questionnaires. The results showed that 0.80 of the statistical sample size were men and 0.20 were women and 0.49 of the statistical sample size were respondents with a bachelor's degree and 0.41% with a master's degree and 0.10 with a degree. They also have a Ph.D., and 14% of respondents have less than 5 years, 20% between 5 and 10 years, 40% between 10 and 15 years and 26% more than 15 years.

4.2. Findings of inferential research statistics

In this part of the analysis of research data collected before using the structural equation modeling method to measure the conceptual model of the research, the first Kolmogorov-Smirnov test is used to test the normality of data collection.

4.2.1 Kolmogorov-Smirnov test

Since in this research, to test the hypotheses, the method of structural equations based on partial least squares is used in Smart PLS software, so it is necessary to examine the normality of the distribution of collected data. Kolmogorov-Smirnov (KS) test was used to check the normality of the data. The results of them, which were calculated using SPSS software, are reported in Table 3.

Table 3 Kolmogorov-Smirnov test results

Components	Average	Standard deviation	Significance level
Hard Quality Management	4.15	0.512	0.217
Soft Quality Management	4.45	0.479	0.198
Organizational innovation capability	3.71	0.368	0.272
Organizational Performance	3.74	0.299	0.254

Source: own processing

Kolmogorov-Smirnov test was tested with an error level of 5%. In this case, it can be said that if the significance level in this test is more than 5%, the data can be assumed to be normal. Otherwise, the distribution of data can not be said to be normal. According to the above table and the values of the significance level, the assumption of normality of the research variables was confirmed.

To test the research conceptual model and also to test the research hypotheses in the model analysis algorithm in the structural equation modeling method in Smart PLS software, the necessary analyzes were performed in three parts: 1) measurement model fit, 2) structural model fit. In this way, first, the accuracy of the relationships in the measurement models was ensured using reliability and validity criteria, and

then the relationships in the structural part were examined and interpreted.

4.2.2 Fitting measurement models

According to the model analysis algorithm in the PLS-SEM method, three criteria of reliability, convergent validity and divergent validity have been used to evaluate the fit of measurement models and the following results have been obtained:

- Reliability: This index is tested and measured using three criteria of factor load coefficients, Cronbach's alpha and combined reliability:
- Factor loads measurement: In confirmatory factor analyses values higher than 0.5 indicate a strong level of significance and high correlation between observation and factor variables and also indicate that the structure is well defined. The results of this measurement are in Table 4.
- Cronbach's alpha: Cronbach's alpha value above 0.7 is an acceptable final indicator. However, Hair et al. (2014) for variables with a small number of questions introduced the value of 0.6 as the limit of Cronbach's alpha coefficient. The results of this test are presented in Table 4.
- Combined reliability: Because in calculating the Cronbach's alpha coefficient for each structure, all indices are entered in the calculations with equal importance, while for calculating CR, the indices with higher factor loads are more important. The CR values of the structures are more realistic and accurate than their Cronbach's alpha. The results of this test are presented in Table 4.

Convergent validity: Convergent validity is the second criterion used to fit measurement models in the partial least squares method. The indicators show that the higher this correlation, the greater the fit. The results of this test are reported in Table 4.

Table 4 Fitting results of measurement models

Component	Item	Factor Loading	Cronbach's Alpha	Combined Reliability	Convergent Validity
Hard quality management	HQM1	0.592	0.863	0.887	0.518
	HQM2	0.753			
	HQM3	0.593			
	HQM4	0.830			
	HQM5	0.801			
	HQM6	0.893			
	HQM7	0.836			
	HQM8	0.845			
	SQM1	0.676			
	SQM2	0.776			
	SQM3	0.783			

Soft quality management	SQM4	0.827	0.895	0.915	0.547
	SQM5	0.772			
	SQM6	0.815			
	SQM7	0.549			
	SQM8	0.662			
	SQM9	0.756			
Organizational innovation capability	OIC1	0.733	0.837	0.888	0.665
	OIC2	0.766			
	OIC3	0.893			
	OIC4	0.860			
Organizational Performance	OP1	0.604	0.768	0.841	0.589
	OP2	0.536			
	OP3	0.880			
	OP4	0.757			
	OP5	0.837			
	OP6	0.671			

Source: own processing

After obtaining the results of the values of factor loads and Cronbach's alpha coefficients, the combined reliability and validity of the partner and the analysis of software outputs, and since the values of each of the above criteria for each of the latent variables are defined above the quorum and threshold, The suitability of the convergent reliability and validity of the research model can be confirmed.
Divergent validity: In Fornell & Larcker (1981) method, the degree of relationship of a structure with its indicators is compared with the relationship of that structure with other structures, so that the acceptable divergence validity of a model indicates that a structure in the model interacts more with its indicators than with other structures. This is done by a matrix. The results of this matrix are presented in Table 5.

Table 5 Divergent validity test results

Components	Hard Quality Management	Soft Quality Management	Organizational innovation capability	Organizational Performance
Hard Quality Management	0.719			
Soft Quality Management	0.689	0.740		
Organizational innovation capability	0.701	0.710	0.815	

Organizational Performance	0.660	0.692	0.711	0.765

Source: own processing

According to the results obtained from Table 5, it can be concluded that in this study, the model structures have more interaction with their indicators, in other words, the divergence validity of the model is acceptable.

4.2.3 Fitting structural research model

After fitting the measurement models, we will fit the structural model (conceptual model) of the research and then we will test the research hypotheses. In order to fit the conceptual model of the research, t-values, R^2, Q^2 were used.

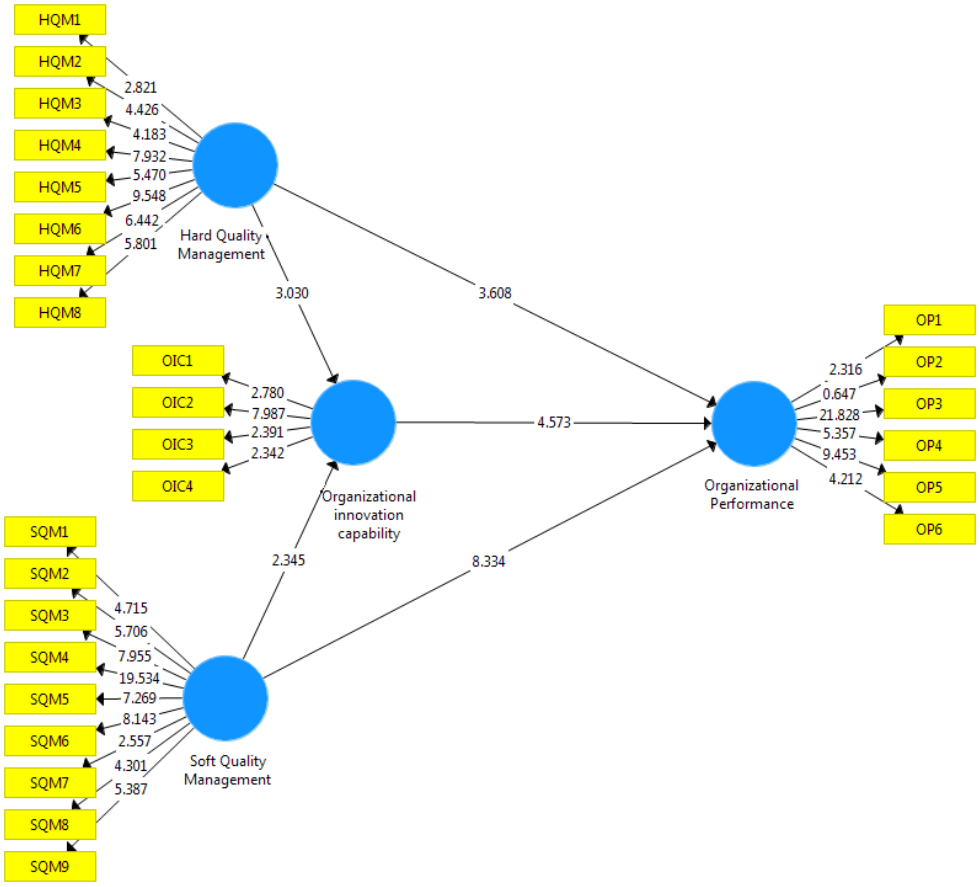

Figure 2 T-values

Source: own processing

T-values: In the partial least squares method, various criteria are used to evaluate the report of the structural model of the research, the most important criterion being the significance coefficient t. If the value of t-statistic is more than 1.96 at the level of 5% error indicates the correctness of the relationship between the research structures and thus confirms the research hypotheses. To calculate this statistic in Smart PLS software, the Bootstrap command is used. The results of this test are shown in Figure 2.

According to the results obtained in Figure 2, it can be concluded that all the obtained numbers are higher than 1.96 and this indicates a good fit of the model and can be a reason to confirm the research hypotheses.

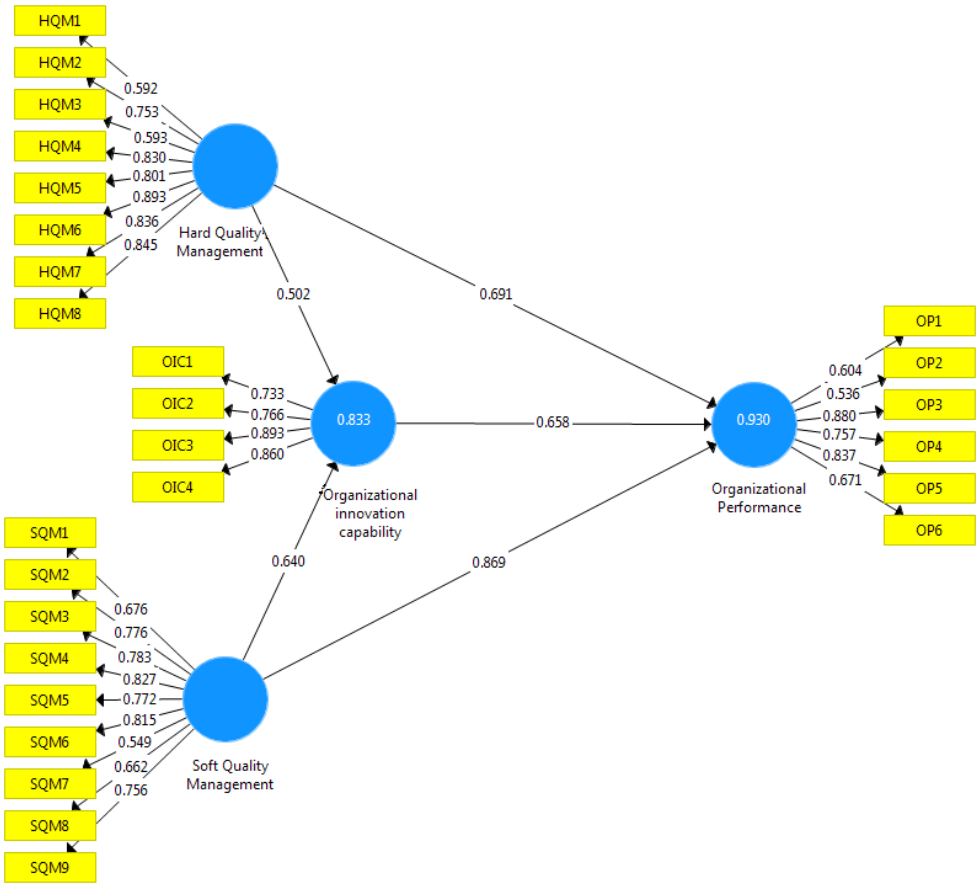

Figure 3 Values R^2, path coefficients and factor loading
Source: own processing

R2: This criterion is the second necessary criterion to examine the fit of the conceptual model of research. Regarding the acceptable value of this criterion, three values are introduced. These three values are 0.19, 0.33 and 0.67, which indicate the weak, medium and strong criteria of the R2 criterion. The results obtained from this criterion are presented in Figure 3.

In general, the study of coefficients of determination is related to the endogenous (dependent) variable of the model. It should be noted that the values of R2 are shown within the circles of the research model and are calculated only for endogenous structures of the model, and in the case of exogenous structures, the value of this criterion is zero. According to the value obtained for the endogenous variables of the research in relation to the R2, it can be concluded that because the values of 0.930 and 0.833 are more than the values of 0.19, 0.33 and 0.67, the structural model of the research can be fitted. It is acceptable.

Q^2: This criterion was introduced by Stone Geizer (1974), it determines the predictive power of the model. Henseler et al. (2009) on the intensity of the model's predictive power for endogenous structures, three values of 0.02, 0.15 and 0.35, which indicate the weak, medium and strong predictive power of the structure or structure, respectively. Has exogenous properties, introduced. Since the value of (1-SSE / SSO), the endogenous structures of the model, ie organizational innovation capability and organizational performance are 0.356 and 0.251, respectively, it can be said that this result indicates acceptable predictive power.

4.2.4 Test results of research hypotheses

Based on the research data analysis algorithm using the partial least squares method, at this stage, according to the results obtained from the values of t and path coefficients, the research hypotheses are tested. If the value of the significance coefficient of each path is more than 1.96, the relevant path is significant at the 95% confidence level and the related hypothesis is confirmed. The results are reported in Table 6.

Table 6. Test results of research hypotheses

Hypotheses	T-value	Path coefficient	Result
HQM → OP	3.608	0.691	support
SQM → OP	8.334	0.869	support
HQM → OIC	3.030	0.502	support
SQM → OIC	2.345	0.640	support
OIC → OP	4.573	0.658	support
HQM → OIC → OP	3.818	0.455	support
SQM → OIC → OP	4.956	0.572	support

Source: own processing.

The results obtained from Table 6. It shows that the components of total quality management have a positive and significant effect on the organizational performance of Iran Khodro Company and also in the relationship between hard and soft quality management with the organizational performance of Iran Khodro Company, the variable of organizational innovation capability has a mediating.

5. Conclusions and Policy Implications

The theories such as life cycle and signaling theory provided enhanced understanding on the question that why few of the companies distribute dividends and others do not distribute them? This study tried to answer some of these questions by paying attention to the life cycle theory and signaling theory. The current research addressed the corporate governance measures, firm efficiency, cash flow volatility and growth opportunities in the determination of dividend pay-out. The current study provided new insights into the life cycle theory by considering the corporate governance measures, firm efficiency and cash flow volatility. The contribution of this study is to provide evidence on agency relationship in the dividend pay-out with reference to the life cycle stage of the firm as the life cycle theory suggests that the agency problems are more prevalent in mature firms. Moreover, conferring to the life cycle theory companies which have growth opportunities ahead may not pay dividends to reinvest the funds. However, life cycle theory did not consider the firm efficiency in this relationship. For instance, a company that has growth opportunities may not efficiently utilize these opportunities. Thus, the corporations that are not efficient and do not have capable management may not be comfortable in cutting the dividends to reinvest. The current study contributed to the existing dividend-related literature by examination of firm efficiency in the theory of firm life cycle of dividends.

In addition to the firm efficiency, volatility of cash flows may also increase the risk associated thereby affecting the dividend pay-out. Therefore, this study is novel as it provides an empirical examination of the explanatory variables with the dividend pay-out in the presence of varying levels of growth opportunities. Hence the study contributes to the existing literature by providing four new dimensions concerning the dividend policy in Pakistan. The first contribution is to study the dividend pay-out of firms with corporate governance indicators by considering growth as moderating variable. Second, the contribution is to document the relationship between firm efficiency and dividend pay-out. The third contribution of the current study is to document the relationship between firm efficiency and dividend pay-out by considering the growth as moderating variable. The fourth contribution is to document the relationship of cash flow volatility with dividend pay-out of Pakistan

firms with growth as moderating variable. This study has profound implications on the dividend policy regarding the corporate governance indicators, the firm efficiency, the cash flow volatility and above all the growth opportunities.

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Author Contributions
HH conceived the study and was responsible for the design and development of the data analysis, literature reviews and write-up. RMR and HAA provided supervision and were responsible for making analyses and interpretations. RYH was responsible for the data collection, formatting and proofreading of the draft.

Disclosure Statement
The authors have not any competing financial, professional, or personal interests from other parties.

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