

Research Article

# TQM Practices and Organizational Performance in the Manufacturing Sector in Jordan mediating role of HRM Practices and Innovation

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**Abstract:** Total Quality Management (TQM) is a continuous process improvement by improving work processes to achieve the quality products and its influence in the organizational performance. The implementation of TQM in an organization is one of the most difficult tasks for a company, as it has consequences for employees. The fact that all quality management awards have included personnel management as one of the crucial aspects to follow is clear evidence of the importance it has for the world of quality management. Innovation plays a critical role in predicting the long-term survival of organizations, determining an organization's success and sustaining its global competitiveness, especially in an environment where technologies, competitive position and customer demands can change almost overnight, and where the life-cycle of products and services are becoming shorter. The purpose of this study is to develop and propose the conceptual framework and research model of TQM Practices about Organizational Performance, by exploring the expected role of HRM Practices and Innovation as mediators to enhance this relationship. A comprehensive review of the literature on TQM, Organizational Performance, HRM Practices, and Innovation were carried out to accomplish the objectives of this study. The adoption of such a conceptual model on TQM and Organizational Performance would help managers and decision makers particularly in Organizational Performance in better understanding of the influence of TQM Practices on Organizational Performance, also to provide guidance to organizations to have a robust understanding the influence of TQM Practices on Organizational Performance with presence of HRM Practices and Innovation. At the same time, this study attempted to shed light on how to improve the Organizational Performance of the manufacturing sector in Jordan. Further, the scope for future study is to test and validate this model by collecting the secondary data from production line managers from manufacturing companies in Jordan, by using Structural Equation Modelling (SEM) approach for hypotheses testing and to find out the effect of these mediators in between TQM Practices and Organizational Performance.

**Keywords:** TQM Practices; Organizational Performance; HRM Practices; Innovation

## About the Authors

Shatha Abu-Mahfouz is a PhD student in the field of Business Management (HRM). Her current research interests include TQM Practices and HRM Practices. During her study as a PhD student, she managed to publish articles in journals and presented papers in conferences. She intends to complete other related articles for publication from her PhD research.

## Public Interest Statement

Every experience of fairness has important attitudinal, affective, and behavioural consequences for any managers. As a results, that would help managers and decision makers particularly in organizational performance in better understanding of the influence of TQM Practices on Organizational Performance. The research, at best, can contribute to provide guidance to organizations to have a robust understanding the influence of TQM Practices on Organizational Performance with presence of HRM Practices and Innovation

## 1. Introduction

In the last few years, the core ideas of total quality management (TQM) have been generally accepted by the business community throughout the world (Montes, Jover, & Fernández, 2003). Total Quality Management (TQM) is a philosophy that emphasizes on continuous improvement of processes to satisfy the customer by producing the quality products with an integrated organizational effort at every level. It is a modern management practice that are implemented by the various sets of an organization such as manufacturing and service. The implementation of TQM with Human Resource Management (HRM) can improve the organizational performance (Nirmala & Faisal, 2016). Also, total quality management (TQM) practices generate positive effects on organizational performance (Anil & Satish, 2015; Montes, Jover, & Fernández, 2003; Press, 2017). Furthermore, TQM practices introduce innovations (Aoun, Hasnan, & Al-Aaraj, 2018; Palm, Lilja, & Wiklund, 2014; Tarí & García-Fernández, 2018; Yusr, 2016; Yusr et al., 2014).

In most organizations, leaders and managers attempt to promote and improve their performance. Previous studies results emphasized the role of human resources management and organizational innovation in the improvement of organizational performance. Nowadays, non-assurance, complexity, globalization and increasing technological changes are considered important features. Innovation, creativity, and problem-solving capability are key skills (Hashemi & Dehghanian, 2017).

In this regard, a major task for managers is to develop human resource management (HRM) initiatives with the aim of generating and refining its intellectual capital assets and, in turn, improving its innovation capacity and organizational performance (Swart & Kinnie, 2010).

HRM practices are the primary means by which companies can influence and shape the skills and behavior of individuals to achieve organizational goals (Chen & Huang, 2009). A number of previous studies have focused on the link between HRM practices and organizational outcomes such as flexibility, productivity or financial performance (Shaw, Park, & Kim, 2013; Shin & Konrad, 2014).

Innovation is a critical aspect for many companies to improve competitiveness (Hallstedt, Thompson, & Lindahl, 2013; Zeng, Zhang, Matsui, & Zhao, 2017) also innovation improve organizational performance (Ali, Seny Kan, & Sarstedt, 2016; Aremu et al., 2015; Giniuniene & Jurksiene, 2015; Su, Cheng, Chung, & Chen, 2018; Tajuddin, Ibrahimi, & Ismail, 2015).

## 2. Research Objectives

The main objective of this study is to investigate whether the presence of TQM practices will have a significant impact on the organizational performance mediating role with HRM practices and innovation of the manufacturing companies in Jordan. This research objective can be achieved through the following specific objectives of the study:

1. To investigate the relationship between the implementation of TQM practices and organizational performance.
2. To explore the expected impacts of TQM practices on HRM practices.
3. To investigate the expected impacts of TQM practices on innovation.
4. To examine the expected impacts of HRM practices and organizational performance.
5. To identify the expected impact of innovation and organizational performance.
6. To investigate the expected impact of HRM practices and innovation.
7. To identify whether the HRM practices mediate the relationship between TQM practices and organizational performance.
8. To check whether the innovation mediates the relationship between TQM practices and organizational performance.
9. To examine whether HRM practices mediate the relationship between TQM practices and innovation.

## 2. Theoretical Basics

**Total Quality Management:** Total quality management (TQM) is an integrated management philosophy aimed at continuously improving the quality of products and process to achieve better customer satisfaction. TQM has been well accepted by managers and quality practitioners as a change management quality approach (Arumugam, Ooi, & Fong, 2008).

**Innovation:** Innovation defined by Afuah (1998), as cited by Popadiuk & Choo (2006) as it is a new knowledge incorporated in products, processes, and services.

**Human resources management:** Human resources management is defined as the arrangement and activities of planned human resources model with the goal that the organization is enabled to achieve its goals (Chow, Teo, & Chew, 2013).

**Organizational performance:** Performance means the result and amount of work. In another definition, it is the number of results achieved by a person, team organization or process (Chow, Teo, & Chew, 2013).

## 3. Literature Review

### 3.1 TQM practices studies

There are scholars who explore the impact of TQM practices and organizational performance (Anil & Satish, 2015; Montes, Jover, & Fernández, 2003; Press, 2017). Previous research has been investigated the relationship between TQM practices (Customer focus, Supplier quality management, Continuous Improvement, Leadership, Employee fulfilment, Learning, Process management) and organizational performance, mediating role by employee satisfaction. The results show that seven TQM constructs have significant relationships with employee satisfaction and hotel performance. Leadership and customer focus play significant roles in enhancing employee satisfaction and hotel performance (Press, 2017).

Also, there are scholars who studied the impact of TQM practices and HRM practices (Paragonzález, Jiménez-Jiménez, & Martínez-lorente, 2016; Ray, 2017; Siregar, Nasution, & Sari, 2017). Previous research has been examined the relationship between TQM practices (customer focus, top management commitment, continuous improvement, employee engagement) and HRM practices (HR planning, staffing, compensation, training and development, and performance appraisal). The results show that the implementation of overall TQM principles has a significant impact on the effectiveness of overall HRM explaining 53.4% of the variation of the effectiveness of HRM practices (Madanat & Khasawneh, 2017)

Moreover, there are scholars examine the impact of TQM practices and innovation (Aoun et al., 2018; Tari & García-Fernández, 2018; Yusr, 2016; Yusr et al., 2014). Previous research has been studied the relationship between TQM practices and innovation performance by exploring the expected role of innovation capability as a mediator to enhance this relationship. The results show that TQM practices have a significant innovation performance. Also, that innovation capability mediates the relationship between TQM practices and innovation performance (Yusr, 2016).

On the other hand, there are scholars who have been studied the impact of TQM practices and organizational performance by mediation role with HRM practices (Para-gonzález et al., 2016). One paper has been published that analyze the relationship between TQM practices and organizational performance mediating role by people criterion of EFQM (European Foundation for Quality Management) model and quality-oriented HRM (selection, training, performance appraisal, and compensation). The result shows a strong and significant effect by a mediator HRM practices between TQM and organizational performance (Para-gonzález et al., 2016).

Furthermore, there are scholars who examine the relationship between TQM practices and organizational performance mediating role with innovation (Arshad, Wang, & Su, 2016; Khan & Naeem, 2016). Previous research has been investigated the relationship between total quality management (TQM), service innovation and firm performance. The results show that TQM implementation has a positive and significant influence on service innovation as well as on

organizational performance. Also, a positive relationship was observed between service innovation and organizational performance (Arshad et al., 2016).

Additionally, there are scholars who examined HRM practices as a mediator (Dubey, Singh, & Ali, 2015; Para-gonzález et al., 2016). One article has been published that examines the mediating effect of human resource management practices between independent variables (i.e., leadership and quality culture (QC)) and successful total quality management (TQM) implementation for firm performance as dependent variable, and the mediation statistics output suggests that HR is a complete mediation between independent variables (i.e., leadership) and successful TQM implementation for firm performance (Dubey, Singh, & Ali, 2015).

### 3.2 HRM practices studies

There are scholars who have checked the impact of HRM practices and organizational performance (Farouk, Abu Elanain, Obeidat, & Al-Nahya, 2016; Glaister, Karacay, Demirbag, & Tatoglu, 2018; Pombo & Gomes, 2018; Sani & Maharani, 2015). Previous research has determined the relationship between Human resource management (HRM) practices and organizational performance. Results showed that there was a close relationship between HRM practices and organizational performance, and the relationship becomes closer when organizational commitment included as a moderating variable (Sani & Maharani, 2015).

Moreover, there are scholars who have studied the impact of HRM practices and innovation (Belso-Martinez, Palacios-Marqués, & Roig-Tierno, 2018; Donate, Peña, & Sánchez de Pablo, 2015; Gabriele, 2017; Liu, Gong, Zhou, & Huang, 2017; Nieves & Quintana, 2016; Seeck & Diehl, 2017; Shahnaei & Long, 2015). One article has been published that investigates the link between human resource management and innovation. Results indicate that teams and HRM practices are important to establish an open innovation approach, while employees' retention is not essential in engaging in open inbound innovation. Also, HRM aspect of open innovation is important for firms given that knowledge is the most important resource for innovation within firms, and innovation is driven by the knowledge possessed by firm's employees (Gabriele, 2017).

Another article has been published that proposes an innovation framework promotion model in organizations and discusses how individual behavior may impact the organization's innovation strategies from both technical and administrative aspects. Firms engage in open innovation processes and engage external sources of knowledge for innovation. Importance of employee participation is getting serious attention towards these days. This indicates the need for dedicated and customized recruitment, training, appraisal, and compensation system within HRM. Internal sourcing of innovation from its employees is the future for organizational innovation to provide a competitive edge for firms (Shahnaei & Long, 2015).

### 3.3 Innovation studies

Urabe 1088 mentioned that innovation consists of the generation of a new idea and its implementation into a new product, process or service, leading to the dynamic growth of the national economy and the increase of employment as well as to creation of pure profit for the innovative business enterprise. Innovation is never a one-time phenomenon, but a long and cumulative process of a great number of the organizational decision-making process, ranging from the phase of generation of a new idea to its implementation phase. New idea refers to the perception of a new customer need or a new way to produce. It is generated in the cumulative process of information-gathering, coupled with an ever-challenging entrepreneurial vision. Through the implementation process, the new idea is developed and commercialized into a new marketable product or a new process with attendant cost reduction and increased productivity (Popadiuk & Choo, 2006).

Furthermore, there are scholars who have been measuring the impact of innovation and organizational performance (Ali et al., 2016; Aremu et al., 2015; Giniuniene & Jurksiene, 2015; Su et al., 2018; Tajuddin et al., 2015). Previous research has been discussed the relationship between

innovation and organizational performance; the results indicate that innovation is significantly positive in influencing organizational performance (Tajuddin et al., 2015).

### 3.4 Performance measure indicators

Numerous studies have been carried out to determine the positive and negative (or non-significant) relationships or correlations between TQM practices and various performance measures. The study presents an overview of different performance measures indicators. A comprehensive review of TQM studies on organizational performance suggests that there are various performance measures indicators (Anil & Satish, 2015; Zakuan, Yusof, Laosirihongthong, & Shaharoun, 2010). In this study, organizational performance will be measured through business results (example productivity, cost performance, and profitability).

## 4. Research Questions

Based on the above literature review and research objectives, the research questions have been generated within line with research objectives, so this study offered nine important research questions:

1. Do TQM practices contribute significantly to organizational performance?
2. Do TQM practices have a significant impact on HRM practices?
3. Do TQM practices have a significant impact on innovation?
4. Do HRM practices have a significant impact on organizational performance?
5. Does innovation has a significant impact on organizational performance?
6. Do HRM practices have a significant impact on innovation?
7. Do HRM practices mediate the relationship between TQM practices and organizational performance?
8. Does innovation mediate the relationship between TQM practices and organizational performance?
9. Do HRM practices mediate the relationship between TQM practices and innovation?

## 5. Underline theories

### 5.1 TQM theories

This paper includes the theoretical framework of TQM practices and organizational performance. The paper expresses the theoretical framework related to TQM practices and organizational performance. It expresses the relevant theory used in this study. TQM theory is used in this study, as the basic to formulate propositions regarding the effects of contextual factors on TQM practices and organizational performance relationships. It is vital to understand the link between TQM practices and organizational performance about theory. Also, TQM innovation theory is used in this study, as the basic to formulate propositions regarding the effects of contextual factors on TQM practices and innovation relationships. It is vital to understand the link between TQM practices and innovation about theory.

My decision for used these theories as the hypothetical framework of this investigation depends on the way that this theory used for. Previous research has been examined the relationships between the practices of total quality management and various levels of organizational performance at firms operating in the US (Kaynak, 2003).

### 5.2 HRM theories

This paper includes the theoretical framework of HRM practices and organizational performance. The section expresses the theoretical framework related to HRM practices and



organizational performance. It expresses the relevant theory used in this study. The theories are contingency theory, and Resource-based view (RBV) theory are used in this study, as the basic to formulate propositions regarding the effects of contextual factors on HRM practices and organizational performance relationships. It is vital to understand the link between HRM practices and organizational performance about theory. My decision for used these theories as the hypothetical framework of this investigation depends on the way that these theories used for.

Contingency theory and resource-based view focus on the examination of HRM at the organizational level and are mainly interested in its performance effects from a business perspective (Boselie, Dietz, & Boon, 2005). Moreover, the performance outcomes of HRM can be captured into Organisational outcomes (e.g., output measures, such as productivity, quality, efficiencies) (Dyer & Reeves, 1995).

### 5.3 Innovation theories

This paper includes the theoretical framework of innovation and organizational performance. The paper expresses the theoretical framework related to innovation and organizational performance. It expresses the relevant theory used in this study.

The theories are resource dependence theory, and Resource-based view (RBV) of organization theory are used in this study, as the basic to formulate propositions regarding the effects of contextual factors on innovation and organizational performance relationships. It is vital to understand the link between innovation and organizational performance about theory. My decision for used these theories as the hypothetical framework of this investigation depends on the way that these theories used for.

Resource dependence theory (Pfeffer & Salancik, 2003) emphasizes 'managerial choice' in the organization–environment interactions in responding to the key environmental constraints such as scarcity of resources, and demands of clients, suppliers, and creditors. To manage environmental dependencies and gain critical resources, organizational leaders would be motivated to change internal processes and offer new products or services to establish and maintain linkages with customers or the government that provide these resources.

The resource-based view (RBV) of organizations, on the other hand, focuses on the heterogeneity of resources and capabilities across the organization and points out the importance of rare, valuable, non-substitutable and inimitable organizational resources in developing distinctive competencies for organizational effectiveness (Braney, 1991; Bryson, Ackermann, & Eden, 2007).

The implication of these theories for this study is that combinative adoption of different types of innovations in different parts of the organization would increase the organization's capacity for adaptive change (Damanpour, Walker, & Avellaneda, 2009).

## 6. Conceptual Framework

Based on the above, a conceptual framework is developed, and a research model has been proposed to explore the relationships between identified TQM practices and organizational performance mediating role with HRM practices and innovation. The framework has four variables. The independent variables are the TQM practices that cover (leadership, top management commitment, process management). The dependent variable is organizational performance. The mediating variable identified are HRM practices that cover (recruitment and selection, training and development, performance appraisal and compensation and rewards), and innovation. This framework aims to examine the relationship between these variables.

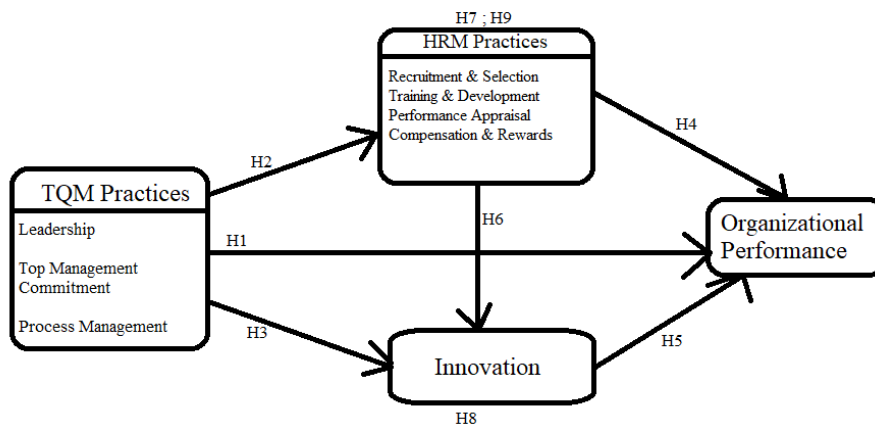
These research hypotheses include the following relations between the variables mentioned which is as follows:

- H1: TQM practices have a significant effect on organizational performance.
- H2: TQM practices have a significant effect on HRM practices.
- H3: TQM practices have a significant effect on innovation.
- H4: HRM practices have a significant effort in organizational performance.

- H5: Innovation has a significant effort on organizational performance.
- H6: HRM practices have a significant effort on innovation.
- H7: HRM practices mediate the relationship between TQM practices and organizational performance.
- H8: Innovation mediates the relationship between TQM practices and organizational performance.
- H9: HRM practices mediate the relationship between TQM practices and innovation.

### 6.1 The Model

Figure 1. Conceptual framework



## 7. Methodology

### 7.1 Sample

#### 7.1.1 Sampling Method

The sample pointed of the populace for this investigation are production line managers at manufacturing sector in Jordan. In addition, the more legitimate strategy to be used for this investigation is the Random Sampling Method.

#### 7.1.2 Sample Size

As per Krejcie & Morgan (1970), the complete sample size of the investigation will be 383 production line managers, and the managers will arbitrarily pick frame the manufacturing sector in Jordan. The response of the subjects will be assembled through the circled questionnaire to them. The questionnaire would be circulated among the manufacturing production line managers.

### 7.2 Data Collection Procedure

In order to increase the response rate and improve the reliability of the questionnaires, the researchers emphasized that the questionnaires were anonymous and not collected by any third person but by the researchers themselves.

### 7.3 Measurement for Constructs

Four constructs were to be measured in this study, including TQM Practices, Organizational Performance, HRM Practices and Innovation, the measurement items of the four constructs were

gotten by means of thorough advances. First, measurement items were adapted from both domestic and overseas studies. Likewise, any things arranged by Jordanian researchers were given careful consideration, since this investigation was specifically led with respect to Jordanian manufacturing sector. Additionally, considering the social foundation of Jordan. Second, a small sample test will be employed, in order to remove the items not significantly related to the constructs by a reliability analysis and exploratory factor analysis. At that point, the estimation sizes of the formal questionnaires will accomplish.

## 8. Significant of study

The implementation of the current study is significant for the following numerous reasons: The present research helps to bridge the gap in the current literature by examining the impact of TQM Practices on Innovation by mediator role of HRM Practices.

Filling the gap could help to improve the understanding of the influence of TQM Practices on Organizational Performance through HRM Practices and Innovation as mediators, in order to improve the manufacturing sector in Jordan and that develop the economy of the country.

The study also highlights the importance of the manufacturing sector, as one of the pillars of the development of the economics of the country, and most industries can detect and applied around the world, and that will help to publish the knowledge and the results of this study widely to be more useful.

Additionally, this study also attempts to enrichment the studies of TQM Practices by identifying HRM Practices as a mediator on the relationship between TQM Practices and Innovation. And the findings of this study will further add to the literature.

## 9. Conclusion

The purpose of this study is to develop and propose the conceptual framework and research model of TQM Practices in relation to Organizational Performance mediating role with HRM Practices and Innovation particularly for manufacturing companies in Jordan. The developed conceptual and research model helps to bridge the gap by showing the relationship between TQM Practices and Innovation mediating role with HRM Practices. The conceptual framework helps to determine the relationship between TQM Practices and Innovation mediating role with HRM Practices. To be more precise for exploring the cross-links between TQM Practices and Organizational Performance mediating role with HRM Practices and Innovation hypotheses are proposed. Finally, the study will provide a significant contribution in developing a better understanding of the relationship between TQM Practices and Innovation mediating role with HRM Practices in Jordanian Manufacturing Companies. The scope for future research is to test and validate this model by collecting the secondary data via distributing self-administrated questionnaires to production line managers at manufacturing companies in Jordan, by using Structural Equation Modelling (SEM) approach for hypotheses testing and to find out the effect of these mediators in between TQM Practices and Organizational Performance.

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