



THE IMPACT OF STRATEGIC HUMAN RESOURCE MANAGEMENT ON ORGANIZATIONAL RESILIENCE: AN EMPIRICAL STUDY ON HOSPITALS

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Received 04 November 2018; accepted 02 January 2019

Abstract. The aim of this study was to explore the impact of strategic human resource management practices (strategic value of human resource practices, human resource analytics and high-performance work practices) on organizational resilience (cognitive, behavioral and contextual dimensions) in private hospitals. The required data for the purpose of this study were collected by a questionnaire developed on the basis of related works. The questionnaire was developed based on exploratory and confirmatory factor analyses. It consisted of 30 items divided into two domains, the first one to measure strategic resource management practices (15 items), and the second one to measure organizational resilience (15 items). The study population was consisted of employees working at private hospitals. The questionnaires were distributed to a random sample of 500 administrative staff working in private hospitals. A total of 449 valid responses were retrieved with a response rate of 89.9%, which is high percent because the researcher visited the hospitals and distributed the questionnaires personally. Using IBM SPSS 24.0 and AMOS 22, the results confirmed that strategic human resource management practices have a positive impact on organizational resilience. In terms of the separate effects of strategic HRM practices, the results showed that strategic value of human resource practices was the most influential variable on organizational resilience, followed by human resource analytics, then high performance work practices. The study concluded that the hospital's ability to be resilient requires an advance planning when formulating the human resources strategy that is supposed to be integrated into the hospital's strategy.

Keywords: strategic human resources management practices, organizational resilience, hospitals.

JEL Classification: M10, M12, O15.

Introduction

Threats that may harm the company such as economic recession, human errors, natural disasters and many other threats represent a key motivation behind studying organizational resilience (Annarelli and Nonino 2016). In order to identify the concept of organizational resilience, it must be distinguished from similar terms such as organizational flexibility and organizational adaptation. Lengnick-Hall et al. (2011) indicated that organizational flexibility is the ability to make the required change, while organizational adaptation is to meet the requirements of the surrounding environment. However, organizational resilience includes appropriate response to events and situations in a timely manner while making changes that minimize the impact of those situations on the company. According to Stephenson

et al. (2010), organizational resilience-related crises are not limited to the above-mentioned crises, but include other examples such as financial crises, supply chain failures, product manufacturing errors, industrial accidents or human resources issues.

Importantly, numerous studies have been conducted on organizational resilience in different areas such as building organizational resilience (Linnenluecke and Griffiths 2012), improving organizational resilience (Crichton et al. 2009), suggesting a framework for organizational resilience (Limnios et al. 2014), benefits of organizational resilience (Ortiz-de-Mandojana and Bansal 2016), evaluation of organizational resilience capacity in organizations (Tillemont et al. 2009, Aleksić et al. 2013), antecedents of organizational resilience (Pal et al. 2014), essentials of organizational

resilience (Engemann and Henderson 2014), strategic management of organizational resilience (Annarelli and Nonino 2016) and measuring organizational resilience (Somers 2009).

Despite these works, few studies have been conducted on the impact of SHRM and organizational resilience. Lengnick-Hall et al. (2011) suggested that organizational resilience can be developed by SHRM. Kantur and Say (2015) pointed out that the recent interest in the theoretical literature focuses on studying organizational resilience in relation to other organizational variables in order to enhance the organization's ability to succeed. Following this trend, the present study aims at exploring the impact of SHRM on organizational resilience.

1. Literature review and hypotheses development

1.1. Definition of organizational resilience

The word "resilience" has been derived from the scientific field. This word describes a material that has the ability to return to its original form after its deformation. On the other hand, resilience refers to the ability of a system to absorb change and continue to operate (McManus et al. 2008). In the context of organizations, the term organizational resilience was launched. The term was derived as the capacity of an organization to respond in a manner that suited the situation and to make changes to reduce the impact of any surprises that may threaten the company (Lengnick-Hall et al. 2011). According to Youssef and Luthans (2007), resilience is considered as one of the forms of positive organizational behavior. Somers (2009) indicated that the predominant feature of the definitions of the term organizational resilience is a negative feature, which is defined by focusing on the ability of the organization to "back down". Luthans (2002) as cited in Youssef and Luthans (2007) defined resilience as the ability to overcome problems such as conflict and organizational failure. Lee et al. (2013) emphasized that resilience is a multidimensional variable that shows how individuals and groups manage situations of uncertainty. There were many ways companies used to respond to uncertainties, such as the use of centralized control procedures, innovative solutions and adaptation. For McManus et al. (2008), a resilient organization has three main characteristics: understanding the situation, managing the organization's weaknesses, and adaptive capacity. Therefore, they regarded organizational resilience as a function of organization's overall awareness of the situation, ability to manage main vulnerabilities as well as adaptability. Mallak (1998) defined the term as the ability of the organization to design and implement positive adaptive behaviors that are rapidly acting to cope with the situations it faces with minimal pressure.

1.2. Dimensions of organizational resilience in the literature

Researchers took different dimensions to measure organizational resilience. Examples of these dimensions include those mentioned by McManus et al. (2008) cited three dimensions of organizational resilience: awareness of the situation, management of vulnerabilities, and adaptability. Lee et al. (2013) conducted a study aimed at developing a measure that can be used to evaluate organizational resilience and to compare between companies in terms of their ability to be resilient companies. Their proposed model consisted of four dimensions: resilience ethos, situation awareness, adaptive capacity and management of keystone vulnerabilities. Lengnick-Hall et al. (2011) addressed the development of an organization's capacity for organizational resilience using strategic human resources management and classified the dimensions of organizational resilience into three dimensions: cognitive dimension, behavioral dimension, and contextual dimension. They studied these dimensions through competencies owned by the employees as well as human resources principles and policies. Kantur and Say (2015) develops a measure of organizational resilience comprised three dimensions: robustness, agility and integrity. Mallak (1998) reviewed numerous scales used to assess organizational resilience and concluded six dimensions that utilized to measure this construct: resource access, source reliance, role dependence, critical understanding, avoidance as well as goal-directed solution-seeking. On the basis of the above-mentioned studies, Table 1 highlights the

Table 1. Organizational resilience dimensions in the literature

Dimensions of organizational resilience	Author (s)
Resource access Source reliance Role dependence Critical understanding Avoidance Goal-directed solution-seeking	Mallak (1998), Somers (2009)
Situation awareness Management of vulnerabilities Adaptive capacity	McManus et al. (2008)
Situation awareness Adaptive capacity Management of keystone vulnerabilities Quality	Van Trijpp et al. (2012)
Resilience ethos Situation awareness Management of keystone vulnerabilities Adaptive capacity	Lee et al. (2013)
Cognitive dimension Behavioral dimension Contextual dimension	Lengnick-Hall et al. (2011)
Robustness dimension (resistance capacity) Agility dimension (change adaptability) Integrity dimension (cohesion among employees)	Kantur and Say (2015)

most common dimensions in the theoretical literature of organizational resilience.

1.3. Dimensions of organizational resilience in the current study

The current study is concerned with strategic human resource management practices. Hence, following Lengnick-Hall et al. (2011) study on developing organizational resilience through SHRM, human resources policies related to dimensions of organizational resilience have been used to assess organizational resilience in terms of three dimensions: cognitive, behavioral and contextual dimensions. Table 2 shows the dimensions of organizational resilience and related HR policies used in the present study.

Table 2. Organizational resilience dimensions and related HR policies used in this study

Organizational resilience dimensions	Related human resource policies
Cognitive dimension	Continuous developmental opportunities Group intensives Cross-functional work assignments
Behavioral dimension	Broad job descriptions Employee suggestions Cross-departmental employees
Contextual dimension	Results-based evaluations Empowerment Employee-customer networks

Source: Lengnick-Hall et al. (2011)

1.4. Definition of strategic human resource management (SHRM)

Human resources (HR) practices were deemed as a system aimed at enhancing motivation and skills of employees (Boon et al. 2018, Al-Tit 2016). They added that the purpose of SHRM is to support the organization to achieve its strategic goals. Sareen (2018) distinguished between human resource management (HRM) and SHRM states that the aim of HRM is to hire the best employees and to provide them with all essentials such as skills and compensations in order to motivate them to achieve success in the organization. The author has indicated that SHRM goes beyond by integrating these practices with the strategic goals of the organization. Fottler (2002) defined SHRM as a bundle of managerial activities aimed at developing as well as maintaining qualified employees that contribute to the strategic goals of the organization.

1.5. Dimensions of SHRM in the literature

In 1987, Schuler and Jackson cited a list of human resource management (HRM) practices contained planning choices,

staffing choices, appraising choices, compensating choices as well as training and development. Formal practices of these choices include job enrichment (planning), socialization (staffing), employee participation (appraising), employment security (compensating) and quality of work life emphasis (training and development). In a study on the relationship between SHRM and job satisfaction by Sareen (2018), the following SHRM practices were used: recruitment and selection, training and development, performance appraisal in addition to compensation and rewards. Neves et al. (2018) highlighted that the common long-term HR practices among various organizations are relate to selection, compensation and training practices. According to them, the aim of this strategic approach of human resource is to motivate employees’ behaviors. Table 3 exhibits the most common dimensions of SHRM used in the theoretical literature.

Table 3. SHRM practices in the literature

Dimensions of SHRM	Author (s)
Planning practices Staffing practices Appraising practices Compensating practices Training and development practices	Schuler and Jackson (1987)
Commitment-based HR practices	Neves et al. (2018)
Recruitment and selection Training and development Performance appraisal Compensation and rewards	Sareen (2018)
HR analytics	McIver et al. (2018)
Strategic value of selection practices	Kim and Ployhart (2018)
High performance work practices	Kooij and and Boon (2018)

1.6. Dimensions of SHRM in this study

Schmidt et al. (2018) investigated the effect of SHRM system differentiation between jobs and found that a lower degree of HR system investment results in a higher turnover intention ration and lower level of organizational citizenship behavior among employees. Their study highlighted the importance of strategic value of human resource practices. Kim and Ployhart (2018) studied the strategic value of selection practices. McIver et al. (2018) brought our attention the significance of human resource analytics. According to them, human resource analytics include the ability of the organization to develop or design new evidence-based solutions to the problems it faces and the changes it must make. Kooij and Boon (2018) regarded high performance work practices (HPWP) as in the type of SHRM systems. Schmidt et al. (2018) provided the following examples of

Table 4. SHRM practices used in this study

Dimensions of SHRM	Author (s)
Strategic value of HR practices	Schmidt et al. (2018)
HR analytics	McIver et al. (2018)
High performance work practices	Kooij and Boon (2018)

HPWP: extensive training and development and flexible job assignments. In the current study, three dimensions were used to measure SHRM as shown in Table 4.

1.7. Relationship between SHRM and organizational resilience

The current study attempts to identify the SHRM effect on organizational resilience by focusing on three aspects of SHRM relating to the strategic value of human resources practices, human resource analytics, and high-performance work practices as well as by focusing on three aspects of organizational resilience belonging to cognitive, behavioral and contextual aspects of organizational resilience. The hypotheses of the study were developed based on a review of the theoretical literature as shown in the following paragraphs.

According to Boon et al. (2018), a key objective of SHRM is to enable the employees to help their organization to achieve its strategic goals. Other researchers have confirmed this goal (Fotller 2002, Sareen 2018). On the other hand, some studies have indicated the strategic importance of human resource management practices (Schmidt et al. 2018). This means that resource management practices differ in terms of their contribution to help the organization to achieve its strategic objectives. Accordingly, the present study has focused on the strategic value of human resource management practices since practices with strategic value play an important role in achieving strategic objectives.

In terms of human resource analytics, which is based on the collection and analysis of data related to human resource management practices to reach results that can be used to enable the organization to develop new solutions to its problems (McIver et al. 2018). Hence, there is a positive impact of resource analytics on organizational resilience. In terms of high-performance human resources management practices as described by Kooij and Boon (2018), which were training and development as well as work assignments, the results of Blanco (2018) confirmed that training of all kinds is an important element in improving organizational resilience. Flandin et al. (2018) also noted that innovative training is an important element in improving individual and group resilience in organizations. Siddiqui (2017) found that training is a critical element for organizational resilience. Additionally, cross-functional job assignments were deemed by Lengnick-Hall et al. (2011) as an important human resources policy related to the cognitive dimension of

organizational resilience. On the basis of these studies, the following hypotheses were suggested:

H1: There is a significant impact of SHRM on the cognitive aspect of OR.

H2: There is a significant impact of SHRM on the behavioral aspect of OR.

H3: There is a significant impact of SHRM on the contextual aspect of OR.

2. Methodology

2.1. Participants

Participants of this study were randomly selected from administrative staff working in private hospitals. The sample includes 500 employees. A questionnaire was distributed to the sample to collect the data. The number of questionnaires returned was 449 questionnaires with a response rate of 89.9%.

2.2. Measures

SHRM practices were measured by three main factors: the strategic value of HR practices, HR analytics and high-performance work practices (Schmidt et al. 2018, Kim and Ployhart 2018, McIver et al. 2018, Kooij and Boon 2018). These factors were collectively measured by nine items. Organizational resilience was measured using three factors adopted from Lengnick-Hall et al. (2011), which were cognitive, behavioral and contextual dimensions. Each dimension was assessed by three factors. All variables were measured by a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree).

2.3. Research model

The model that developed for the purpose of the current study as exhibited in Figure 1 contains one independent variable (SHRM) with three dimensions and one dependent variable (organizational resilience) with three dimensions. Consequently, the model illustrates three hypotheses that clarify the impact of SHRM on organizational resilience. SHRM was assessed as a whole construct by strategic value

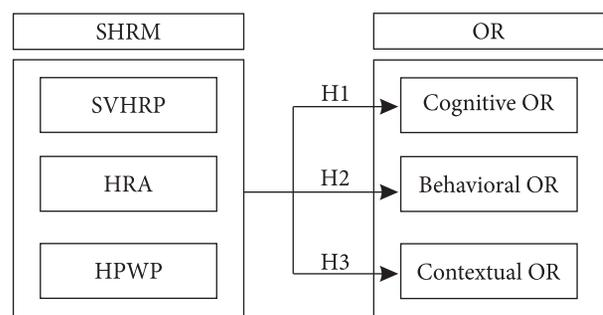


Figure 1. The conceptual model

of human resource practices (SVHRP), human resource analytics (HRA) and high-performance work practices (HPWP). In contrast, organizational resilience (OR) was evaluated as a multidimensional construct comprised three dimensions: cognitive organizational resilience (cognitive OR), behavioral organizational resilience (behavioral OR) and contextual organizational resilience (contextual OR). In fact, the model comprises three measurement models (SHRM with 9 items, cognitive OR, behavioral OR and contextual OR with 3 indicators for each).

2.4. Reliability and validity

Reliability was assessed on the basis of Cronbach's alpha (α) and composite reliability (CR). Validity on the other hand was assured by convergent and discriminant validity. Convergent validity was calculated based on the average variance extracted (AVE) while discriminant validity was

assessed by comparing AVE square roots with bivariate correlations between variables (Al-Tit 2015). The square roots of AVEs should be greater than the correlations between each pair of the variables (Chuah et al. 2016). As can be seen in Table 5, the results of factor loadings of all items were greater than 0.70. For SHRM items (H1-H9), factor loadings ranged from 0.89 to 0.71. Lambda squares as well as epsilon (ϵ) values were computed in order to calculate AVE and composite reliability. In relation to AVE values, Table 6 showed the following results: SHRM (AVE = 0.64), cognitive OR (AVE = 0.80), behavioral OR (AVE = 0.79), contextual OR (AVE = 0.78). In the same vein, composite reliability values for all variables were greater than 0.70 (CR SHRM = 0.94, CR cognitive OR = 0.85, behavioral OR = 0.84, CR contextual OR = 0.83). The results indicated that alpha (α) value was greater than 0.70. The results of composite reliability and Cronbach's alpha represent an indicator of the scale's internal consistency (Lee et al. 2013).

Table 5. Lambda, Lambda square and epsilon values of scale items

Items	Λ				λ^2				E			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
H1	0.89				0.79				0.21			
H2	0.84				0.71				0.29			
H3	0.81				0.66				0.34			
H4	0.74				0.55				0.45			
H5	0.84				0.71				0.29			
H6	0.75				0.56				0.44			
H7	0.88				0.77				0.23			
H8	0.73				0.53				0.47			
H9	0.71				0.50				0.50			
OR1		0.90				0.81				0.19		
OR2		0.81				0.66				0.34		
OR3		0.70				0.49				0.51		
OR4			0.87				0.76				0.24	
OR5			0.77				0.59				0.41	
OR6			0.74				0.55				0.45	
OR7				0.80				0.64				0.36
OR8				0.79				0.62				0.38
OR9				0.76				0.58				0.42
Sum	7.19	2.41	2.38	2.35	5.78	1.96	1.90	1.84	3.22	1.04	1.10	1.16

Table 6. AVE, square root of AVE, CR and Cronbach's alpha

variables	(1)	(2)	(3)	(4)	AVE	$\sqrt{\text{AVE}}$	CR	α
SHRM	–				0.64	0.41	0.94	0.84
Cognitive OR	0.64	–			0.80	0.64	0.85	0.81
Behavioral OR	0.54	0.38	–		0.79	0.62	0.84	0.80
Contextual OR	0.66	0.37	0.34	–	0.78	0.61	0.83	0.78

Pearson's correlation coefficients in Table 6 displayed that SHRM is positively and significantly correlated to the dimensions of organizational resilience. That is, SHRM is positively and significantly correlated to cognitive OR ($r = 0.64, P < 0.05$), behavioral OR ($r = 0.54, P < 0.05$) and contextual OR ($r = 0.66, P < 0.05$). OR dimensions were also positively and significantly correlated. Correlations between independent variables were ranged from 0.34 to 0.38. Hence, no high correlations were detected between these variables.

2.5. Model evaluation and hypotheses testing

The model in Figures 1 and 2 was evaluated based on two aspects: the overall fit of the model and the significance of model parameters in terms of regression coefficients (Ullman and Bentler 2012, Al-Tit and Suifan 2015). The overall model fit was measured based on five indices: goodness-of-fit-index (GFI), the comparative fit index (CFI) and the root mean square error of approximation (RMSEA). Cut-off criteria used to judge the values of these indices suggest that CFI as well as GFI values should be greater than 0.90 and RMSEA value should be less than 0.08 (Al-Tit 2016). The results in Table 7 confirm that the model of the

study is characterized by goodness-of-fit indices (CFI, GFI and AGFI are higher than 0.90, RMSEA is less than 0.04).

Hypotheses 1, 2 and 3 postulated that SHRM has a significant impact on the cognitive, behavioral and contextual aspects of organizational resilience. The results of hypotheses testing indicated that SHRM has a significant impact on the cognitive aspect of organizational resilience ($\beta = 0.31, P < 0.05$), which supported H1. It was revealed that SHRM has a significant impact on the behavioral aspect of organizational resilience ($\beta = 0.40, P < 0.05$). That is, hypothesis 2 was supported. Finally, the results confirmed that SHRM has a significant impact on the contextual aspect of organizational resilience ($\beta = 0.38, P < 0.05$) which indicated an acceptance of H3. All in all, all the hypotheses were supported.

Discussion and conclusions

The aim of the current study was to investigate the impact of SHRM on organizational resilience. SHRM was measured as a unidimensional construct while organizational resilience was measured as a multidimensional construct consists of cognitive, behavioral and contextual aspects. The study presumed that SHRM has a significant impact on these dimensions of organizational resilience. The results of hypotheses testing confirmed that SHRM has a significant impact on cognitive, behavioral and contextual aspects of organizational resilience. According to Boon et al. (2018), a key purpose of human resource management practices is to improve employee's motivation and skills. This rule can be extended so that employee motivation and skills can be used to improve the organization's ability to achieve its

Table 7. Results of goodness-of-fit indices

Indices	Cut-off	Values	Results
CFI	Higher than 0.90	0.921	Fit
GFI	Higher than 0.90	0.940	Fit
AGFI	Higher than 0.90	0.910	Fit
RMSEA	Less than 0.08	0.040	Fit

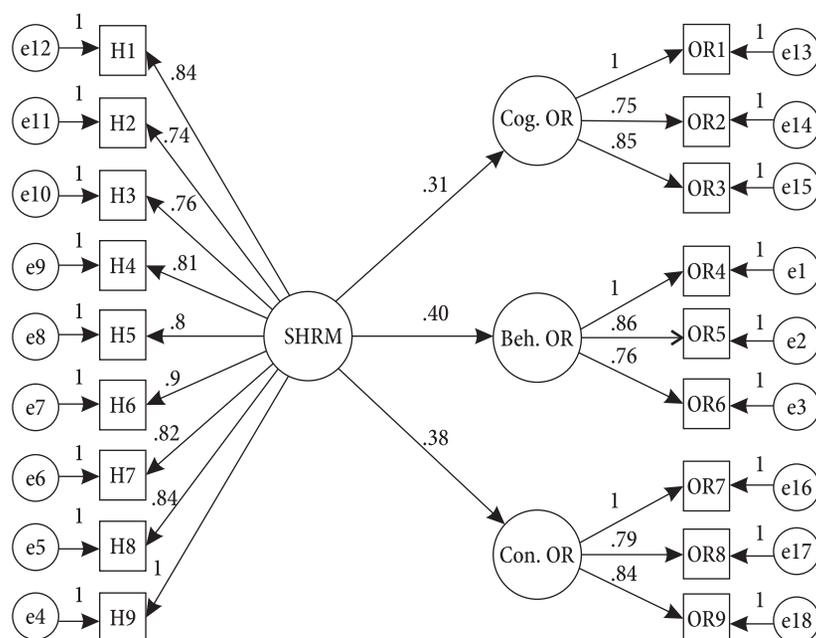


Figure 2. Measurement and structural models

strategic objectives, and then human resource management practices are described as strategic practices. Sareen (2018) added that the strategic management of human resources depends on the integration of strategic practices with the strategic objectives of the organization. Several dimensions have been proposed that can be used to measure strategy. Including the selection, compensation and training of staff. The current study adopted the high-performance practices mentioned by Kooij and Boon (2018). In addition, emphasis was placed on the strategic value of HR practices as suggested by Schmidt et al. (2018) along with HR analytics as proposed by McIver et al. (2018).

Organizational resilience on the other hand represents the organization's ability to respond to situations of uncertainty. Lengnick-Hall et al. (2011) illustrated that organizational resilience can be identified on the basis of three aspects, which were cognitive, behavioral and contextual aspects of organizational resilience. According to them, the cognitive aspect of organizational resilience requires HR practices and policies that can boost continuous developmental opportunities, group intensives and cross-functional work assignments. Furthermore, the behavioral dimension of organizational resilience concerns job descriptions, employee suggestions and job rotation through cross-departmental tasks. The contextual dimension of organizational resilience relates to results-based evaluations, employee empowerment and relationships between employees and customers.

Studies on the effect of SHRM on organizational resilience are very few and therefore it is not easy to find previous studies that are consistent with or different from the results of the current study. In any event, it can be said that strategic practices of human resource, increase the organization's ability to develop new solutions to its problems (McIver et al. 2018). A study by Blanco (2018) found that staff training has a positive impact on organizational resilience, especially innovative training (Flandin et al. 2018). The role of practices involving the employee in a variety of work functions is not forgotten particularly the impact of these practices in the improved level of organizational resilience (Lengnick-Hall et al. 2011). Ultimately, the study concluded that organizational ability to be resilient and to respond to uncertainty and emergency situations can be improved by using strategic human resource management practices.

Study contribution

The contribution of the current study to the theoretical literature in the context of SHRM can be summarized by three basic points. First, the independent variable (SHRM) in the study was measured using the new dimensions adopted from recent studies. Second, the study dealt with a dependent variable that was rarely studied by previous Arab studies. Third, the study was conducted using a sample of

healthcare employees. Dimensions of SHRM do not differ significantly from the dimensions of HRM as it is clear that most studies use similar dimensions. Looking at the main objective of SHRM, which is to assess the contribution of an organization's human resource practices and its role in improving the organization's ability to achieve its strategic objectives. For this reason, SHRM measurement should include reference to the strategic value of human resource management practices used in the organization, which means that the researcher does not simply measure SHRM by selecting some common HRM practices.

Managerial implications and limitations and future research

One of the most important implications of the study is that it alerts organizations to the need to pay attention to organizational resilience through the possession of a special system of resilience, focusing on the cognitive, behavioral, and contextual aspects. In addition, this system can be improved by paying attention to strategic human resource management.

The present study was conducted using a sample of employees in private hospitals. This means that the results cannot be distributed to all hospitals. The results of the study cannot be generalized to other sectors. Therefore, the study recommends conducting future studies using larger samples from hospitals and organizations in other sectors.

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