The impact of empowering and transformational leadership on organizational performance and innovation: the mediating role of shared leadership and moderating role of organizational culture in the Iraqi healthcare sector

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Abstract

Purpose – In this study, leadership, social and technical system and organizational behavior theories were used to test the research model, consisting of six variables. The purpose of this study was to observe the impact of leadership styles (i.e. transformational leadership and empowering leadership) on organizational performance and innovation. In addition, the mediating role of shared leadership and mediating role of organizational culture in the model were measured.

Design/methodology/approach – This study relied on a quantitative design, specifically, a questionnaire, to obtain data from 301 employees in the health sector (three public-sector hospitals in the Basra Governorate).

Findings – Data analysis results showed that most of the relationships in the research model were positive. In addition, the results demonstrated the importance of the mediating variable in strengthening the relationship between the independent and dependent variables. The results of this study also clearly depicted the role of the mediating variable. Theoretical and practical implications were discussed, and proposals for future studies were presented.

Originality/value – This research focused on the use of modern leadership styles, collected data on such styles and included them in one model to enhance organizational output. This study was conducted in the context of the Iraqi health sector and can be distinguished from other studies by its adoption of a large sample to obtain clear and important results, thereby making it an important reference for researchers to improve organizational performance.

Keywords Transformational leadership, Empowering leadership, Shared leadership, Organizational innovation, Organizational performance, Organizational culture

Paper type Research paper

Introduction

Organizational performance is a measure of an organization's progress and development (Muthuveloo *et al.*, 2017; Al Khajeh, 2018), in which the extent of the organization's success is

recognized through its ability to achieve its goals and objectives. As organizational performance assesses an organization's performance compared with its goals and objectives, a successful organization is one that can successfully achieve its goals (Koohang *et al.*, 2017; AL-Abrow *et al.*, 2019). Goal attainment is also closely related to organizational effectiveness (high organizational performance), thereby making it the focus of nearly all organizational behavior theories, because of their implicit or explicit goal of improving the effectiveness of organizations (Anderson, 2017; McShane and Glinow, 2018). Managers' efforts to improve employee attitudes will likely lead to positive outcomes, including increased organizational effectiveness, customer satisfaction and profits (Robbins and Judge, 2018). There are seven theoretical orientations or perspectives on organizations, all of which provide various measurement standards:

(1) rational goal models (achieving goals);

(2) system resource models (allocating resources to an organization's subsystems optimally);

(3) managerial process models (effective organizational processes);

(4) organization development models (capacity for problem-solving and renewal);

(5) bargaining models (processes of accommodation and adjustment between organizational elements); and

(6) structural-functional models (creating structures that support the organizational functions) (Cunningham, 1977, 1978).

Innovation at the organizational level is generally considered as the generation (development) or adoption (use) of new ideas or behaviors (Angle and Van de Ven, 2000; Damanpour and Aravind, 2012; Wikhamn, 2019). Specifically, innovation that is new to an organization (a new product, service, technology or practice) is created in a way that will result in changes in previous practices (Wischnevsky and Damanpour, 2008; Daft, 1978; Drucker, 2014; Papa *et al.*, 2018). Innovation typically occurs adaptively in response to the environment where the organization operates and under environmental disturbances, as managers work on organizational transformation to adapt and respond to changes in a timely manner to maintain the organization's competitive advantages, which requires an appropriate leadership style for managing human capital to deal with such changes (Ghasabeh *et al.*, 2015; Fu *et al.*, 2020). Hence, in recent years, studies focused on unconventional leadership styles and their impact on employees' behavior and performance (Andriani *et al.*, 2018; Zhu *et al.*, 2018). This trend encouraged many organizations to adopt a leadership participation pattern to deal with the increasing complexity of the current work environment. Despite the efficiency and effectiveness of leadership participation patterns at the individual and collective levels, studies on such leadership remain scarce (Zhu *et al.*, 2018). Thus, a call for researchers to conduct in-depth studies to clearly understand the special mechanisms of leadership participation patterns emerged (Wu *et al.*, 2020), which can contribute to enhancing developmental performance.

Empowering leadership has been considered to be part of organizational science for over 50 years, and the goal of adopting this concept is to achieve benefits at the individual and organizational levels and enhance performance (of individuals, teams and organizations; Yunis *et al.*, 2018). Empowering leadership is defined as a chain of behaviors that leaders adopt to empower employees, which reinforces their intrinsic motivation to achieve the desired performance (Li *et al.*, 2020). In addition, this leadership style can boost employees' confidence by increasing their willingness to be mutually influenced by others to carry out joint actions, leading to the building of mutual trust, regardless of their ability to monitor or control the other parties (Klasmeier and Rowold, 2020).

Organizational culture is an organization's means for dealing with internal and external parties and action mechanism for problems and conflicts that may arise from the organization's activities (Meng and Berger, 2019). When such mechanisms are properly formulated in harmony with employees' perceptions, feelings, thoughts and disposition, they may be transferred to new employees through experience and education (Nikcevic, 2016), which will be effectively reflected in the organization's success (Chesley, 2020).

This present study is an extension of many studies on the relationship between leadership in its various styles, organizational performance and organizational creativity at multiple levels (individual, team or group and organization). This study attempts to address some potential issues highlighted by earlier studies and try to provide some solution. In addition, this study focuses on bridging the knowledge gap by using organizational culture as an interactive variable (Klasmeier and Rowold, 2020), adopting six variables in one model and conducting research in the health sector, with a relatively large sample, to obtain clear results, with the aim of generalizing the findings. This study has been conducted within health sector of Southern Iraq. This is to submit that the health sector is facing leadership issues causing the poor performance and delivery of health services to the masses. This makes health sector a preferred choice to conduct the study.

This study uses a sample of individuals working in hospitals under the Basra Health Department, namely, Abe Al-Khassib General Hospital, Al-Jumhuri General Hospital and Al-Sadr Teaching Hospital (Southern Iraq), to examine the effect of the adopted leadership style, such as transformational leadership or empowering leadership, on organizational performance and innovation through the mediating role of shared leadership and a modifying variable for the relationship, that is, organizational culture. The main objective of this study is to develop a measurable model that can be generalized to the wide-range sample under investigation. Accordingly, this study intends to answer the three main research questions. First, do the transformational and empowering leadership help to improve the performance and innovativeness in Iraqi health sector. Second, does shared leadership mediate the relationship between the transformational leadership and health sector performance? Third, does the organizational culture moderate the proposed relationship between leadership style and performance?

Theoretical development and hypotheses
This section provides a detailed discussion of the relevant earlier studies to provide theoretical foundation of this research. Transformational leadership is one of the most important leadership theories used in the organizational psychology literature (Arthur and Hardy, 2014). Burns first developed transformational leadership theory in 1978 as the first to propose the concept of transformational leadership. This type of leadership works by inspiring employees to improve their workplace to the utmost extent (Ghasabeh et al., 2015; Yukl and Gardner, 2020). According to Burns, this inspiration can be promoted by a leadership style that can transform employees' attitudes, beliefs and behaviors to achieve the highest level of performance (Anderson, 2017). The changes adopted by an organization are the foregone conclusion of the organization's survival and growth, which in turn require a change in the leadership style, from exchange leadership to transformational leadership (Andriani et al., 2018).

Shared leadership is a dynamic, interactive process of influence between individuals in a group to develop their ability to lead one another to achieve the goals of the group, organization or both (Yukl, 1989; Pearce and Conger, 2003). This process can be achieved by distributing the leadership role on a large scale among a group of individuals instead of to one individual assigned as the president (Pearce, 2004). On this basis, leadership

participation can be defined as a process of mutual influence between employees, alternating between formal and informal leaders (Pearce *et al.*, 2004). In this model, leaders emerge from the work group based on their knowledge, skills or abilities to lead the team in tasks or challenges then pass the mantle of leadership to others as the team situation develops (Novoselich and Knight, 2018).

Meanwhile, organizational performance refers to the results or actual outputs of an organization and is measured by comparing such outputs with the organization's predetermined goals (planned goals; Al Khajeh, 2018). To achieve such goals, the top management in the organization must be able to make the right decisions about the acquisition, allocation and distribution of resources among the divisions of the organization (Daft, 2020). Despite the overlap between the concepts of organizational performance and productivity, both represent the outputs of an organization, in which organizational performance is considered as the broadest indicator, as it includes productivity, quality and other factors (Abu-Jarad *et al.*, 2010). Thus, the basic criterion for the evaluation of successful performance is an organization's ability to grow and survive in the long term. Therefore, organizational performance is broader than merely the attainment of outputs using available resources (Jenatabadi, 2015) and a reflection of management practices requiring the success of the organization in various aspects, such as stakeholder satisfaction, including employees (George *et al.*, 2019). Hence, organizational performance can be defined as a set of activities that can realize regional or local business development by providing jobs or a set of goods and services that can increase national wealth and competitiveness (Khalid *et al.*, 2019; Obeso *et al.*, 2020).

First and foremost, organizations continuously strive to survive, followed by development, prosperity and growth (Damanpour, 1991). This process can be achieved only through the adoption of innovation processes, as organizational innovation can help raise the performance of an organization (Demircioglu, 2016; AL-Abrow *et al.*, 2021). Therefore, organizational innovation is closely related to an organization's growth through its ability to generate new ideas to build and develop new businesses and realize growth and competitive advantages by increasing its size or acquiring assets (Tidd and Bessant, 2021). Organizational innovation is also considered to be the main means of an organization for changing, whether in response to changes in its internal or external environment or as a preventive measure to affect the environment, giving the organization the ability to adapt to the environment where it operates and survive, prosper and grow (Montalvan-Burbano *et al.*, 2020).

Entrepreneurs focus on innovation as a process through which they can take advantage of changes to offer different products (goods, services, processes and so on). Innovation can be presented by entrepreneurs as a system or innovation in their ability to learn; thus, continuous thinking is required to realize the necessary changes (Drucker, 2014), technology and market expansion through the creation of new products, technologies and systems (Razavi and Attarnezhad, 2013). Organizational innovation is also referred to as innovation in how an organization is managed, how the structure of an organization is designed and how to make such structures consistent with human resource practices to support individual creativity, which will be reflected as organizational creativity (Simao *et al.*, 2016).

Cotemporary organizations have moved away from the individual to shared leadership approach, where the decisions are made through employees' participation. (Pearce and Sims, 2000). The way transformational leadership influences the shared leadership is highly dependent on the local culture. It has been found that in Asian context, this effect is quite positive and significant. (Ishikawa, 2012; Hoch, 2013; Wang *et al.*, 2014; Choi *et al.*, 2017;

Galli, 2019). Our study is an extension of these studies in Asian context in a way that it draws number of indirect relationships between the study's variables.

Also, there is a wider research which demonstrates a direct positive impact of transformational leadership on organizational performance (Elenkov, 2002; Garsia *et al.*, 2008; Samad, 2012; Katou, 2015; Arif and Akram, 2018). There are also studies which found a direct relationship between transformational leadership and organizational innovation (e.g. Jung *et al.*, 2003; Gumusluoglu and Ilsev, 2009; Mokhber *et al.*, 2015). We have noticed from review of the previous literature that there is a direct relationship between shared leadership and organizational performance (Avolio *et al.*, 1996; Ensley *et al.*, 2003; Carson *et al.*, 2007; Svensson *et al.*, 2019). Although there are many studies that found a relationship between shared leadership and organizational performance, there are also indications of a relationship of shared leadership and organizational innovation (Hoch, 2013; Wu and Chen, 2018).

Some studies showed that the behavior of transformational leaders is linked with their shared leadership behavior, which reflects positively on individuals' self-efficacy (Choi *et al.*, 2017; Coun *et al.*, 2019; Klasmeier and Rowold, 2020). Transformational leaders can enhance organizational performance by involving employees in important decisions, which can raise their performance level and be the basis for achieving the goals of the organization, thereby raising its overall performance level (Chai *et al.*, 2017). Many studies analyzed the direct impact of transformational leadership on organizational performance (Saeidi *et al.*, 2015; Nguyen *et al.*, 2017; Sweeney *et al.*, 2019) and showed the indirect relationship between the two concepts. Meanwhile, another research stream focused on the relationship between the two concepts through the mediating role of leadership participation, specifically through leaders who build trust and develop relationships with employees and lead to boost employees' morale to reach their highest level of performance (Klasmeier and Rowold, 2020).

Transformational leadership is the leadership style most associated with innovation and change (Lukowski, 2017), as it represents one of the elements constituting the innovation process in the workplace (Farrukh *et al.*, 2019), especially when an employee believes him/ herself to be able to deal with events proactively (Prabowo *et al.*, 2018). Although many studies demonstrated the positive impact of the relationship between transformational leadership and organizational innovation (Matzler *et al.*, 2008; Samad, 2012; Paulsen *et al.*, 2013), other studies revealed that the relationship between transformational leadership and innovation behaviors requires support from other variables (Qu *et al.*, 2015). Therefore, a review of the literature indicated that transformational leadership is not necessarily associated with the creativity of individuals under all circumstances, and further research is needed to determine the conditions that can modify the relationship (Zuraik and Kelly, 2019). This finding means that transformational leadership involves behaviors that may influence employees' creativity; however, a possibility exists that this influence may not occur because of the multiplicity of the dimensions of transformational leadership. Thus, it may or may not encourage creativity under all circumstances (Jyoti and Dev, 2015). Hence, highlighting the complementary role of leadership participation in transformational leadership to motivate employees to engage in innovative courses of action is necessary (Jyoti and Bhau, 2015). On the basis of the foregoing discussion, the following hypotheses are proposed:

H1. The mediating role of shared leadership positively influences the relationship between transformational leadership and organizational performance.

H2. The mediating role of shared leadership positively influences the relationship between transformational leadership and organizational innovation.

The concept of empowering leadership was proposed at the end of the 1980s by Manz and Sims (1989, 1991, 2001), who emphasized the need for leaders to encourage employees to lead themselves and called the idea "time superior leadership" (Hao *et al.*, 2018; Cheong *et al.*, 2019), coinciding with the fundamental technological and commercial changes occurring in the public and private sectors (Amundsen and Martinsen, 2014). This leadership style recently emerged in the literature largely because of the growing interest in structural and psychological empowerment, in which a leader helps subordinates exercise independence without worrying about organizational constraints (Hao *et al.*, 2018).

Empowering leadership is one of the modern concepts of leadership and similar to other concepts discussed by various researchers. To distinguish empowering leadership from participatory leadership, empowering leadership can be described as conceptually including a broad range of participatory leadership styles (Kim *et al.*, 2018). Participatory leadership involves employees' participation in decision-making, whereas empowering leadership allows employees to not only participate in decision-making but also take responsibility for their work and does not focus on specific levels or types of jobs or limit the participation of groups versus individuals (Kim, 2019).

When top-level leaders adopt empowering leadership, the act may contribute to improving the leadership engagement process, which in turn can enhance organizational performance (Grille *et al.*, 2015). Empowering leadership can provide benefits at the individual and organizational levels and enhance the performance of individuals and groups; thus, this style of leadership is often linked with shared leadership to enhance and improve individual and collective performance (Yu *et al.*, 2018). Employee empowerment as "power sharing" is not complete without the motivational effect of empowerment on the employees. Thus, the literature on empowering leadership developed management practices based on the social structure perspective, in which leaders' enabling behaviors play a vital role in leadership engagement (Cheong *et al.*, 2019).

Shared leadership arises from the distribution of leadership influence in a group (Humphrey and Aime, 2014). Individual leadership can provide meaningful insights to enhance leadership engagement (Klasmeier and Rowold, 2020), and high-level leaders' empowerment of employees may considerably facilitate the leadership participation process (Grille *et al.*, 2015).

Some leaders adopt distinct behaviors to instill pride and respect in employees through their association and inspire motivation. That is, leaders' behaviors can encourage employees' motivation by encouraging unconventional thinking and new ways of completing tasks and solving problems (Choi *et al.*, 2017; Wu and Chen, 2018). Shared leadership can also contribute to knowledge exchange and organizational performance, which depend on individuals' innovation (Coun *et al.*, 2019), through the sharing of strategic decisions related to the objectives of the organization and not merely through participation (Wu and Chen, 2018). The main goal of shared leadership is knowledge diversity, which can broaden horizons toward innovation (Wu *et al.*, 2020). Thus, researchers agree that leadership participation is not a substitute for, but rather integrated in, empowering leadership and leads to organizational innovation (Fausing *et al.*, 2015). Many factors, such as team attributes and technology, interact with the leadership style, thereby generating joint leadership behaviors. When group leaders and members are aligned, social interactions that can help reinforce the organizational identity will increase (Abdullah and Al-Abrrow, 2022). Moreover, empowering leadership can build behaviors that can empower employees through their role in the shared leadership, which can create a positive impact from the

empowering leader's declaration that employees have an audible voice in and value to the organization (Hoch, 2013). Although numerous studies confirmed the existence of a direct relationship between empowering leadership and innovation (Hui-ying and Jian-peng, 2013; Peter *et al.*, 2015), they showed that this relationship is not necessarily the same in all cases. For instance, the relationship may be directly mediated by certain variables, such as shared leadership (Singh *et al.*, 2019). On the basis of the foregoing discussion, the following hypotheses are proposed:

H3. The mediating role of shared leadership positively influences the relationship between empowering leadership and organizational performance.

H4. The mediating role of shared leadership positively influences the relationship between empowering leadership and organizational innovation.

Organizational culture is defined as procedures and methods that must be absorbed by all the members of an organization and seen as effective and acceptable to all (Paais and Pattiruhu, 2020), as it clearly affects organizational performance and the achievement of competitive advantages (Isensee *et al.*, 2020). Therefore, organizational culture is one of the critical elements that influence the design of the organizational structure, which can explain why some organizations change their organizational culture in line with developments and complexities in the business environment; otherwise, an organization will not live up to its required level of performance (Spicer, 2020).

Shared leadership refers to the process of influencing others to understand what needs to be done and how it can be done effectively and the process of facilitating individual and collective efforts to achieve common goals (Choi *et al.*, 2017). Such processes require organizations to adopt a transformational leadership style that will allow employees to share the leadership responsibility and build an organizational culture based on the participation of employees in achieving the organizations' goals (Pradhan *et al.*, 2017) and getting the best of what they have, which is positively reflected as organizational performance (AbuAlRub and Nasrallah, 2017). This idea indicates that a link exists between organizational culture, transformational leadership and shared leadership. A leader's culture will affect the relationship between his/her leadership style for dealing with employees and shared leadership, because a successful leader can develop an organizational culture capable of adapting to changing environmental conditions (Lubis and Hanum, 2020).

Shared leadership can be distinguished from other leadership styles through its characteristics of providing social support, member empowerment and participation opportunities (voice) and close relation to empowering leadership (Houghton *et al.*, 2015). Shared leadership can motivate proactive behaviors, thereby indicating that it can encourage leaders' active participation in enhancing organizational performance (Fausing *et al.*, 2015). Moreover, differences in the organizational culture can affect leaders' behaviors (Meng and Berger, 2019) through its positive contribution to independence from bureaucratic constraints and participation in decision-making (Tseng, 2017). Organizational culture influence leaders' behaviour in a way that they motivate employees through involving in critical decisions and delegate powers to them, which consequently improve employees' performance. This, in turn, enhances organizational performance (Marcoulides and Heck, 1993; Jacobs *et al.*, 2013). There are numerous studies which highlight the significance of organizational culture for growth and sustainability of organization (Byles *et al.*, 1991; Ahmad, 2012; Martinez *et al.*, 2015). On the basis of the foregoing discussion, the following hypotheses are proposed:

H5. Organizational culture modifies the relationship between transformational leadership and shared leadership.

H6. Organizational culture modifies the relationship between empowering leadership and shared leadership.

The following Figure 1 presents the conceptual model of the study (1).

Methodology

Sample and procedures

The data were obtained from three public-health-sector hospitals in the Basra Governorate, South Iraq, through a questionnaire distributed to 322 individuals working in the aforementioned sector. From the distributed questionnaires, 311 were retrieved, 301 of which were valid, which makes a higher response rate of 96.5% and a higher ratio of measurable questionnaires to the total number of distributed questionnaires which is 93.5%. The sample was chosen randomly, and the protection of the rights of the respondents and confidentiality of their responses was emphasized in the questionnaire. The data collection period was about 90 days. The participants were identified through the directors of their respective departments. Participants were guided about the contents of the questionnaire. The directors helped to identify the relevant individuals so as to better serve purpose of the study. A random selection method was used to constitute the sample of the study.

To obtain correct, measurable and generalizable data, the study variables and dimensions were clarified accurately and in detail by directly meeting and interacting with the participants for each part of the questionnaire, answering all their questions directly and ensuring the confidentiality of their answers to eliminate or reduce biases. Furthermore, the problems of possible biases in the data and the participants not taking their answers seriously were addressed.

Measures

A large number of variables were used in this study, that is, 6 basic variables, with a total of 14 dimensions. To shorten the questionnaire, short scales were adopted as well as
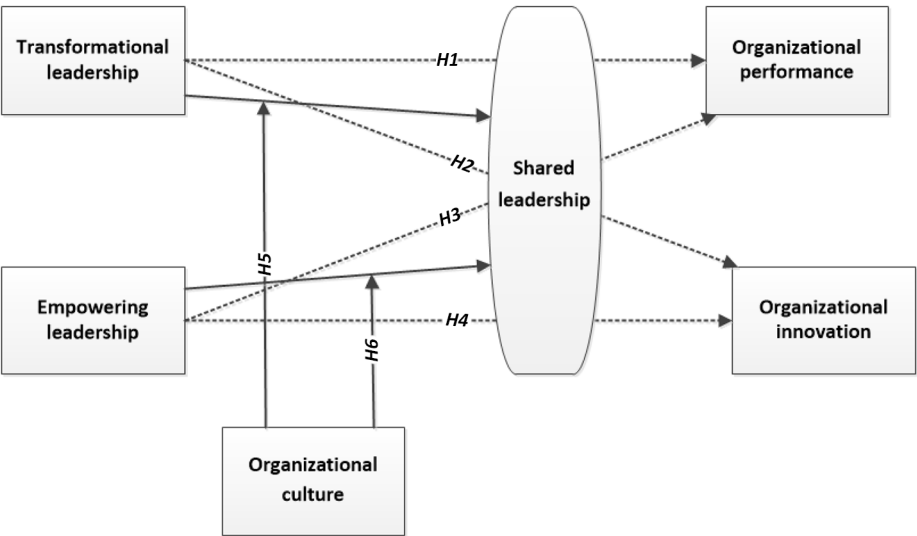

Figure 1.
Research model

questionnaire elements that can obtain a high loading coefficient (Rhoades and Eisenberger, 2002). The questionnaire was translated into Arabic to ease the respondents' task.

Independent variables

- Transformational leadership (*TL;* idealistic influence [*II*]: $\alpha = 0.825$, inspirational motivation [*IM*]: $\alpha = 0.789$, intellectual stimulation [*IS*]: $\alpha = 0.758$, and individual consideration [*IC*]: $\alpha = 0.815$): A scale was adopted (Alarifi, 2014) to measure *TL*, which consisted of four sub-dimensions. For example, the phrase "I think my boss focuses on his beliefs and values" was used to measure *II*, "I see that my Manager talks about optimism when it's about the future" was used to measure *IM* and "When solving problems, he asks for different points of view" was used to measure *IS*. An example item for measuring *IC* is "He helps other people develop their abilities."

- Empowering leadership (*EL;* enhancing the significance of work [*ESW*], fostering participation in decision making [*FPD*], expressing confidence in high performance [*ECH*], and providing autonomy from bureaucratic constraints [*PAB*]; $\alpha = 0.755$ for all the dimensions): A scale was used to measure *EL* (Choi *et al.*, 2017) through four subdimensions. For example, "Our manager helps us understand the importance of our work to influence the organization's overall effectiveness" was used to measure *ESW*, "He often consults us on strategic decisions" was used to measure *FPD*, "He believes that we can handle difficult tasks" was used to measure *ECH* and "He allows us to do our work the way we want" was used to measure *PAB*.

Moderating and mediating variables

- Shared leadership (*SL;* shared purpose [*SP*]: $\alpha = 0.788$, social support [*SS*]: $\alpha = 0.895$ and voice [*VO*]: $\alpha = 0.799$): A scale was adopted to measure *SL* (Carson *et al.*, 2007), which was divided into three subdimensions. For example, "Employees participate in setting the goals of the organization" was used to measure *SP* and "Employees are encouraged to complete tasks on time" was used to measure *SS*. Finally, to measure *VO*, the phrase "Working personnel are involved in selecting department heads" was used.

- Organizational culture (*OC;* $\alpha = 0.828$): A scale was adopted to measure *OC* (Arinanye, 2015). An example item is "We always treat one another with appreciation and respect."

Dependent variables

- Organizational performance (*OP;* $\alpha = 0.798$): A scale was adopted to measure *OP* (Mustaffa, 2012). An example item is "The results of the organization's work are acceptable to the higher management."

- Organizational innovation (*OI;* $\alpha = 0.854$): A scale was adopted to measure OI (Bekkenutte, 2016). An example item is "New practices are introduced in the workplace for the purpose of development."

We used four dimensions (19 items) to measure transformation leadership, four dimensions (12 items) for measuring empowering leadership, three dimensions (9 items) for shared

leadership, six items for organizational culture and ten items to measure the organizational performance and organizational innovation each.

Data analysis
Smart-PLS 3.3.3 was used to evaluate the measurement model and hypotheses. The model was assessed using a partial least squares structural equation model. The evaluation process was conducted in two phases, that is, the evaluation of the measurement model and evaluation of the structural model. These both were carried out after ensuring model fitness.

Because of the complexity of study' model and more variables, it was mandatory to establish model fitness. We used three different indices to evaluate model fitness, which are (i) comparative fit index-CFI; (ii) chi-square divided by the degrees of freedom ratio (χ^2/df); and (iii) root mean square error of approximation-RESEA. A value of above 0.90 for CFI indicates model fitness. In case of (χ^2/df), it ranges between 1 and 5. In case of RESEA, a value less than 0.05 indicates good model fitness; a value between 0.05 and 0.08 suggests a reasonable model fitness; a value between 0.08 and 0.10 indicates mediocre model fitness, whereas a value greater than 0.10 means poor model fitness (Byrne, 2016). For all the three measures, our result falls within the range which ascribes a good model fitness [CFI: 0.932, (χ^2/df): 1.92, RESEA: 0.061].

To evaluate the measurement model, factor loading values, the average variance extracted, composite reliability and Cronbach's alpha reliability (α) coefficient were used. Scales are considered acceptable when the factor loadings of items exceed 0.50 or 0.70. The average variance extracted value of each scale must exceed 0.50, and the composite reliability coefficient and Cronbach's alpha should exceed 0.70 (Hair *et al.*, 2017). The results in Table 1 show that all the factor loadings of the items and average variance extracted values exceeded the acceptable values. Therefore, it can be concluded that all the items met the standards (Isaac *et al.*, 2019; Haq and Awan, 2020). In addition, the two reliability values exceeded 0.70 and, thus, are statistically acceptable.

According to Kline (2011), heterotrait-monotrait ratio (HTMT) values less than 0.85 indicate no problem with the data regarding discriminant validity. Table 2 presents the HTMT test results, showing that the diagonal values are higher than the minimum values. Thus, the discriminant validity was satisfactory and sufficient for discriminant verification.

Descriptive statistics were used to provide a summary of the collected data. The mean values ranged from 2.75 to 3.31, and the standard deviation values ranged from 0.547 to 0.911. The correlation coefficient between the variables was positive at the average level for all the six main components, thereby initially supporting the research hypotheses (Table 3).

The bootstrap methodology with 5,000 samples was used in Smart-PLS 3.3.3 to estimate the *t*-statistics of the beta (β) coefficient and *p*-value. In addition, *p*-values and *t*-statistics were used to verify the acceptance level of the hypotheses. Table 4 shows the results of the structural model evaluation of the six research hypotheses.

The results of the testing of the six hypotheses provided several insights. First, regarding the indirect hypotheses, *H1* confirmed the existence of a positive and significant effect relationship (*t*-statistics = 7.052, *p*-value = 0.000 and β = 0.318) between TL and OP through SL, whereas *H2* confirmed the existence of a positive and significant influence relationship (*t*-statistics = 10.552, *p*-value = 0.000 and β = 0.405) between TL and OI through SL. Meanwhile, *H3* confirmed the existence of a positive and significant influence relationship (*t*-statistics = 8.214, *p*-value = 0.000 and β = 254) between EL and OP through SL, and finally, *H4* confirmed the existence of a positive and significant effect relationship (*t*-statistics = 2.254, *p*-value = 0.000 and β = 093) between EL and OI through SL.

Second, regarding the moderating hypotheses, *H5* confirmed the existence of a positive and significant effect relationship (*t*-statistics = 5.124, *p*-value = 0.001 and β = 0.214) in the

Factor	Subfactor	Item	Factor loading	AVE	CR	α
TL	II	ii1	0.766	0.534	0.810	0.825
		ii2	0.763			
		ii3	0.814			
		ii4	0.725			
		ii5	0.676			
		ii6	0.660			
		ii7	0.697			
	IM	im1	0.689	0.531	0.706	0.798
		im2	0.792			
		im3	0.719			
		im4	0.710			
	IS	is1	0.733	0.531	0.707	0.758
		is2	0.805			
		is3	0.736			
		is4	0.631			
	IC	ic1	0.865	0.542	0.720	0.815
		ic2	0.661			
		ic3	0.703			
		ic4	0.700			
SL	SP	sp1	0.754	0.614	0.745	0.788
		sp2	0.855			
		sp3	0.736			
	SS	ss1	0.851	0.690	0.822	0.895
		ss2	0.798			
		ss3	0.842			
	VO	vo1	0.815	0.613	0.744	0.799
		vo2	0.795			
		vo3	0.736			

Factor	Subfactor	Item	Factor loading	AVE	CR	α
EL	ESW	esw1	0.727	0.594	0.723	0.755
		esw2	0.851			
		esw3	0.728			
	FPD	fpd1	0.843	0.675	0.808	0.755
		fpd2	0.839			
		fpd3	0.781			
	ECH	esh1	0.819	0.623	0.755	0.755
		esh2	0.768			
		esh3	0.780			
	PAB	pab1	0.860	0.587	0.714	0.755
		pab2	0.749			
		pab3	0.678			
OC		oc1	0.616	0.557	0.808	0.828
		oc2	0.725			
		oc3	0.796			
		oc4	0.851			
		oc5	0.762			
		oc6	0.705			
OP		op1	0.735	0.549	0.770	0.798
		op2	0.814			
		op3	0.718			
		op4	0.702			
		op5	0.732			
OI		oi1	0.732	0.599	0.818	0.854
		oi2	0.842			
		oi3	0.709			
		oi4	0.814			
		oi5	0.766			

Notes: TL = transformational leadership, II = idealized influence, IM = inspirational motivation, IS = intellectual stimulation, IC = individual consideration, EL = empowering leadership, ESW = enhancing the significance of work, FPD = fostering participation in decision making, ECH = expressing confidence in high performance, PAB = providing autonomy from bureaucratic constraints, SL = shared leadership, SP = shared purpose, SS = social support, VO = voice, OC = organizational culture, OP = organizational performance and OI = organizational innovation

Table 1.
Measurement model assessment

interaction of transformational leadership, organizational culture and shared leadership, whereas *H6* confirmed the existence of a positive and significant influence relationship (*t*-statistics = 1.995, *p*-value = 0.041 and β = 0.109) in the interaction of empowering leadership, organizational culture and shared leadership.

Discussion

In this study, the final results of the relationship between organizational performance and innovation were examined by focusing on the impact of leadership on employee behavior and motivation for innovation. Based on leadership theory, which focuses on leaders'

| | TL | EL | SL | OC | OP | OI | Variance inflation factor | | |
							OC	OP	OI
TL							1.258		
EL	0.685						1.952		
SL	0.301	0.685					1.857		
OC	0.647	0.673	0.692				1.542	1.958	1.542
OP	0.452	0.751	0.665	0.715					
OI	0.178	0.595	0.751	0.623	0.687				

Table 2.
Heterotrait-monotrait ratio and multicollinearity test

Notes: TL = transformational leadership, EL = empowering leadership, SL = shared leadership, OC = organizational culture, OP = organizational performance and OI = organizational innovation

Variables	Mean	SD	TL	EL	SL	OC	OP	OI
TL	3.21	0.821	1					
EL	3.12	0.754	0.512**	1				
SL	3.01	0.911	0.365**	0.587**	1			
OC	3.31	0.547	0.421**	0.625**	0.598**	1		
OP	3.29	0.854	0.541**	0.452**	0.541**	0.465**	1	
OI	2.75	0.705	0.214**	0.452**	0.485**	0.522**	0.542**	1

Table 3.
Descriptive statistics and correlation

Notes: TL = transformational leadership, EL = empowering leadership, SL = shared leadership, OC = organizational culture, OP = organizational performance and OI = organizational innovation; , *$P < 0.05$; **$P < 0.01$

Hypotheses	β	SE	*t*-statistics	*p*-value	OC	R^2 OP	OI
H1: TL → SL → OP	0.318	0.045	7.052	0.000	0.547	0.625	0.354
H2: TL → SL → OI	0.405	0.038	10.552	0.000			
H3: EL → SL → OP	0.254	0.029	8.214	0.000			
H4: EL → SL → OI	0.093	0.041	2.254	0.000			
H5: OC*TL → SL	0.214	0.041	5.124	0.001			
H6: OC*EL → SL	0.109	0.055	1.995	0.041			

Table 4.
Results of hypothesis testing

Notes: TL = transformational leadership, EL = empowering leadership, SL = shared leadership, OC = organizational culture, OP = organizational performance, OI = organizational innovation, OC*TL = interaction organizational culture with transformational leadership, OC*EL = interaction organizational culture with empowering leadership

interest in changing employees' behaviors to those necessary to achieve the organization's goals (Savovic, 2017; Khan *et al.*, 2018), it was determined that a transformational and empowering leader will positively influence employees' behavior and performance in the workplace, which in turn will stimulate creative initiative. The mediating role of shared leadership in strengthening the relationship between the dependent and independent variables was also investigated, and it was proven that shared leadership had a positive impact on the outcomes of many organizations (Le and Lei, 2019; Wu and Chen, 2018; Zhu *et al.*, 2018).

This study has been conducted in Iraq, a country with multiple, socio-economic and leadership challenges. In this way, the study intends to suggest some measures to improve the performance of Iraqi health sector.

A research model was developed in this study to examine the expected impact of three leadership styles, namely, transformational, empowering and shared leadership, on the success and survival of organizations. The results of the analyses supported most of the hypotheses, which indicated that the aforementioned leadership styles enhanced organizational performance, which is mainly related to individual performance resulting from job satisfaction and job commitment achieved from perception of importance and value related to important decisions of the organization. Positive results are achieved when employees realize the importance of their role and participation in decision-making. Moreover, the results confirmed the importance of organizational culture in achieving the goals of an organization and the possibility of providing a competitive advantage, thereby filling the gaps in previous studies (Klasmeier and Rowold, 2020). The results also supported the importance of the mediating role of leadership participation in realizing high performance and organizational innovation (Zhu *et al.*, 2018; Scott-Young *et al.*, 2019; Song *et al.*, 2020).

Theoretical implications

In this section, the relationships between the elements of the hypothetical research model are described to easily understand the mechanism of the model and intermediate relationships of shared leadership as well as the modified role of organizational culture. A transformational leader will have an impact on employees' energy to demonstrate their best performance and commitment. This supports the findings from a previous study of Al-Amin (2017) and Buil *et al.* (2019). Meanwhile, employees' involvement in important decisions will motivate them to improve their performance. In other words, the use of leadership styles that tend to democratize work, such as by empowering and involving employees, will lead to positive results in the outputs of an organization. These results are aligned with many of the earlier studies (Alshery *et al.*, 2015; Aali and Zahedi, 2019; Hammadi *et al.*, 2021).

This study focused on aspects crucial to the work of organizations, that is, leadership theory and its impact on organizational and social structures. This study described leadership theory as the adoption of a set of leadership styles (i.e. transformational leadership, empowering leadership and shared leadership) and social dimensions represented by employees' response to leaders who motivate them to adopt innovative behavior to improve their performance expected by the organization.

Practical implications

The practical contribution of this study is crystallized in the expectation of benefits from the obtained results, as they support the findings of previous studies, which led organizations to adopt the best methods, policies and leadership styles to improve their performance and

realize organizational innovation. This development led to the non-adherence of such organizations to traditional methods of leadership, especially when the positive results of the adoption of modern methods and patterns were observed.

This study also focused on the behavioral aspect of employees by highlighting the role of a transformational leader in motivating and inspiring employees to improve their performance, thereby encouraging the spirit of teamwork, which can help achieve optimal organizational performance. The more employees feel comfortable, safe and confident in the workplace, the stronger their desire to stay and work for the organization to achieve its goals and enhance its competitive advantage. Therefore, the findings of this study will help to improve organizational performance of the health sector in Iraq through improved leadership style and employees' participation in decision-making instead of power-centered approach.

Limitations and future research directions

Claiming the existence of an integrated study in all aspects is difficult, as certain limitations must be noted. This statement applies to most studies, including the current study, though it attempted to identify how leaders can influence the performance and innovation of an organization and achieve positive results through a modifying variable, namely, organizational trust, which has yet to be examined in a standardized model. This study also attempted to focus on the two most important elements in the performance and innovation process, namely, leadership style and employees. However, limitations exist, which can be addressed in future studies. This study was conducted in the public health sector because of its large number of employees and need for leadership in managing a large, diverse and complex society. In addition, generalizing the study results is difficult, as the study focused on a government service sector. This study measured performance and innovation at the organizational level; thus, future studies should measure performance and creativity at the individual level. The results of the study are based on the data obtained from the employees working at the same levels across the different hospital. Future studies can consider employees working at different levels to determine the organizational and employees' performance. Finally, future studies may adopt other leadership styles, such as paternalistic leadership or servant leadership.

Conclusion

It can be concluded that the results of this study clearly supported the research hypotheses. The results confirmed the role of transformational and empowering leadership in the success of an organization by supporting leaders and influencing their behavior through idealized influence, support and participation in critical decisions. The results also confirmed the strength of the mediating role of shared leadership as a result of practices in the workplace as well as the positive role of organizational culture as a moderating variable in the model.

References

Aali, A. and Zahedi, S. (2019), "A comparison of the impact of transformational and shared", *Perspective*, Vol. 10 No. 2, pp. 41-70.

Abdullah, H.O. and Al-Abrrow, H. (2022), "Impact of perceived organisational justice, support and identity on workplace behaviour through job attitudes: verification in the role of LOC", *International Journal of Organizational Analysis*, doi: 10.1108/IJOA-01-2022-3099.

AbuAlRub, R.F. and Nasrallah, M.A. (2017), "Leadership behaviours, organizational culture and intention to stay amongst Jordanian nurses", *International Nursing Review*, Vol. 64 No. 4, pp. 520-527.

Abu-Jarad, I.Y., Yusof, N.A. and Nikbin, D. (2010), "A review paper on organizational culture and organizational performance", *International Journal of Business and Social Science*, Vol. 1 No. 3.

Ahmad, M.S. (2012), "Impact of organizational culture on performance management practices in Pakistan", *Business Intelligence Journal*, Vol. 5 No. 1, pp. 50-55.

Alarifi, S. (2014), "The effects of transformational leadership on followers' creativity and innovation", (Doctoral dissertation, Brunel University London).

Al Khajeh, E.H. (2018), "Impact of leadership styles on organizational performance", *Journal of Human Resources Management Research*, Vol. 2018, pp. 1-10.

Al-Abrrow, H., Abdullah, H. and Atshan, N. (2019), "Effect of organisational integrity and leadership behaviour on organisational excellence: mediator role of work engagement", *International Journal of Organizational Analysis*, Vol. 27 No. 4, pp. 972-985.

Al-Abrrow, H., Fayez, A.S., Abdullah, H., Khaw, K.W., Alnoor, A. and Rexhepi, G. (2021), "Effect of open-mindedness and humble behavior on innovation: mediator role of learning", *International Journal of Emerging Markets*, doi: 10.1108/IJOEM-08-2020-0888.

Al-Amin, M. (2017), "Transformational leadership and employee performance mediating effect of employee engagement", *North South Business Review*, Vol. 7 No. 2, pp. 28-40.

Alshery, W.B.R., Ahmad, F.B. and Al-SwidiA.K. (2015), "The moderating effect of role ambiguity on the relationship of job satisfaction, training and leadership with employee performance", *International Journal of Business Administration*, Vol. 6 No. 2, pp. 30-41.

Amundsen, S. and Martinsen, L. (2014), "Empowering leadership: construct clarification, conceptualization, and validation of a new scale", *The Leadership Quarterly*, Vol. 25 No. 3, pp. 487-511.

Anderson, M. (2017), "Transformational leadership in education: a review of existing literature", *International Social Science Review*, Vol. 93 No. 1, p. 4.

Andriani, S., Kesumawati, N. and Kristiawan, M. (2018), "The influence of the transformational leadership and work motivation on teachers performance", *International Journal of Scientific and Technology Research*, Vol. 7 No. 7, pp. 19-29.

Angle, H.L. and Van de Ven, A.H. (2000), "Suggestions for managing the innovation journey", in Van de Ven, A.H., Angle, H.L. and Poole, M.S. (Eds), *Research on the Management of Innovation*, Oxford University Press, Oxford, pp. 663-697.

Arif, S. and Akram, A. (2018), "Transformational leadership and organizational performance: the mediating role of organizational innovation", *SEISENSE Journal of Management*, Vol. 1 No. 3, pp. 59-75.

Arinanye, R.T. (2015), "'Organizational factors affecting employee performance at the college of computing and information sciences (cocis), makerere university, Kampala-Uganda", Unpublished master dissertation. Uganda Technology and Management University.

Arthur, C.A. and Hardy, L. (2014), "Transformational leadership: a quasi-experimental study", *Leadership and Organization Development Journal*, Vol. 35 No. 1, pp. 38-53.

Avolio, B.J., Jung, D.I., Murry, W. and Sivasbramaniam, N. (1996), "Building highly developed teams: focusing on shared leadership process, efficacy, trust, and performance", in Beyerlein, M.M., Johnson, D.A. and Beyerlein, S.T. (Eds), *Advances in Interdisciplinary Studies of Work Teams: Team Leadership*, Elsevier Science/JAI Press, Vol. 3, pp. 173-209.

Bekkenutte, E. (2016), "Organizational innovation practices: a strategy-as-practice perspective on performance increasing configurations of organizational innovations in Dutch manufacturing SMEs, *Master thesis Strategic Management*, Radboud University, Netherlands.

Buil, I., Martínez, E. and Matute, J. (2019), "Transformational leadership and employee performance: the role of identification, engagement and proactive personality", *International Journal of Hospitality Management*, Vol. 77, pp. 64-75.

Byles, C.M., Aupperle, K.E. and Arogyaswamy, B. (1991), "Organizational culture and performance", *Journal of Managerial Issues*, pp. 512-527.

Byrne, B.M. (2016), "Structural equation modeling with amos: basic concepts, applications, and programming", 3rd ed. Routledge, New York.

Carson, J.B., Tesluk, P.E. and Marrone, J.A. (2007), "Shared leadership in teams: an investigation of antecedent conditions and performance", *Academy of Management Journal*, Vol. 50 No. 5, pp. 1217-1234.

Chai, D.S., Hwang, S.J. and Joo, B.K. (2017), "Transformational leadership and organizational commitment in teams: the mediating roles of shared vision and team-goal commitment", *Performance Improvement Quarterly*, Vol. 30 No. 2, pp. 137-158.

Cheong, M., Yammarino, F.J., Dionne, S.D., Spain, S.M. and Tsai, C.Y. (2019), "A review of the effectiveness of empowering leadership", *The Leadership Quarterly*, Vol. 30 No. 1, pp. 34-58.

Chesley, C.G. (2020), "Merging cultures: organizational culture and leadership in a health system merger", *Journal of Healthcare Management*, Vol. 65 No. 2, pp. 135-150.

Choi, S.B., Kim, K. and Kang, S.W. (2017), "Effects of transformational and shared leadership styles on employees' perception of team effectiveness", *Social Behavior and Personality: An International Journal*, Vol. 45 No. 3, pp. 377-386.

Choi, S.B., Kim, K. and Kang, S.W. (2017), "Effects of transformational and shared leadership styles on employees' perception of team effectiveness", *Social Behavior and Personality: An International Journal*, Vol. 45 No. 3, pp. 377-386.

Coun, M.M., Peters, P.C. and Blomme, R.R. (2019), "Let's share!' The mediating role of employees' self-determination in the relationship between transformational and shared leadership and perceived knowledge sharing among peers", *European Management Journal*, Vol. 37 No. 4, pp. 481-491.

Cunningham, J.B. (1977), "Approaches to the evaluation of organizational effectiveness", *The Academy of Management Review*, Vol. 2 No. 3, pp. 463-474.

Cunningham, J.B. (1978), "A systemsresource approach for evaluating organizational effectiveness", *Human Relations*, Vol. 31 No. 7, pp. 631-656.

Daft, R.L. (1978), "A dual-core model of organizational innovation", *Academy of Management Journal*, Vol. 21 No. 2, pp. 193-210.

Daft, R.L. (2020), "Organization Theory and Design, 13th Edition", Cengage learning, USA.

Damanpour, F. (1991), "Organizational innovation: a meta-analysis of effects of determinants and moderators", *Academy of Management Journal*, Vol. 34 No. 3, pp. 555-590.

Damanpour, F. and Aravind, D. (2012), "Managerial innovation: conceptions, processes and antecedents", *Management and Organization Review*, Vol. 8 No. 2, pp. 423-454.

Demircioglu, M.A. (2016), "Organizational innovation", *Global Encyclopedia of Public Administration, Public Policy, and Governance*, pp. 1-5.

Drucker, P. (2014), *Innovation and Entrepreneurship*, Routledge.

Elenkov, D.S. (2002), "Effects of leadership on organizational performance in Russian companies", *Journal of Business Research*, Vol. 55 No. 6, pp. 467-480.

Ensley, M.D., Pearson, A. and Pearce, C.L. (2003), "Top management team process, shared leadership, and new venture performance: a theoretical model and research agenda", *Human Resource Management Review*, Vol. 13 No. 2, pp. 329-346.

Farrukh, M., Lee, J.W. and Shahzad, I.A. (2019), "Intrapreneurial behavior in higher education institutes of Pakistan: the role of leadership styles and psychological empowerment", *Journal of Applied Research in Higher Education*, Vol. 11 No. 2.

Fausing, M.S., Joensson, T.S., Lewandowski, J. and Bligh, M. (2015), "Antecedents of shared leadership: empowering leadership and interdependence", *Leadership and Organization Development Journal*, Vol. 36 No. 3.

Fu, H., Ye, B.H. and Xu, X. (2020), "The Cross-Level effect of shared leadership on tourism employee proactive behavior and adaptive performance", *Sustainability*, Vol. 12 No. 15, p. 6173.

Galli, B.J. (2019), "A shared leadership approach to transformational leadership theory: analysis of research methods and philosophies", *In Scholarly Ethics and Publishing: Breakthroughs in Research and Practice*, IGI Global, USA, pp. 751-790.

George, B., Walker, R.M. and Monster, J. (2019), "Does strategic planning improve organizational performance? A meta-analysis", *Public Administration Review*, Vol. 79 No. 6, pp. 810-819.

Ghasabeh, M.S., Soosay, C. and Reaiche, C. (2015), "The emerging role of transformational leadership", *The Journal of Developing Areas*, Vol. 49 No. 6, pp. 459-467.

Grille, A., Schulte, E.M. and Kauffeld, S. (2015), "Promoting shared leadership: a multilevel analysis investigating the role of prototypical team leader behavior, psychological empowerment, and fair rewards", *Journal of Leadership and Organizational Studies*, Vol. 22 No. 3, pp. 324-339.

Gumusluoglu, L. and Ilsev, A. (2009), "Transformational leadership and organizational innovation: the roles of internal and external support for innovation", *Journal of Product Innovation Management*, Vol. 26 No. 3, pp. 264-277.

Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M. and Thiele, K.O. (2017), "Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods", *Journal of the Academy of Marketing Science*, Vol. 45 No. 5, pp. 616-632.

Hammadi, R.A.I., Kurdi, T.A. and MuhammadbT.J. (2021), "Spiritual well-being and its effect on individual work performance an exploratory study of the opinions of a sample of employees working at Tikrit university/college of business and economics", *Muthanna Journal of Administrative and Economic Sciences*, Vol. 11 No. 1.

Hao, P., He, W. and Long, L.R. (2018), "Why and when empowering leadership has different effects on employee work performance: the pivotal roles of passion for work and role breadth self-efficacy", *Journal of Leadership and Organizational Studies*, Vol. 25 No. 1, pp. 85-100.

Haq, I.U. and Awan, T.M. (2020), "Impact of e-banking service quality on e-loyalty in pandemic times through interplay of e-satisfaction", *Vilakshan-XIMB Journal of Management*.

Hoch, J.E. (2013), "Shared leadership and innovation: the role of vertical leadership and employee integrity", *Journal of Business and Psychology*, Vol. 28 No. 2, pp. 159-174.

Houghton, J.D., Pearce, C.L., Manz, C.C., Courtright, S. and Stewart, G.L. (2015), "Sharing is caring: toward a model of proactive caring through shared leadership", *Human Resource Management Review*, Vol. 25 No. 3, pp. 313-327.

Hui-Ying, M. and Jian-Peng, W. (2013), "The impact of shared leadership on innovation performance", *2013 International Conference on Management Science and Engineering 20th Annual Conference Proceedings, IEEE*, pp. 1385-1390.

Humphrey, S.E. and Aime, F. (2014), "Team microdynamics: toward an organizing approach to teamwork", *Academy of Management Annals*, Vol. 8 No. 1, pp. 443-503.

Isaac, O., Aldholay, A., Abdullah, Z. and Ramayah, T. (2019), "Online learning usage within yemeni higher education: the role of compatibility and task-technology fit as mediating variables in the is success model", *Computers and Education*, Vol. 136, pp. 113-129.

Isensee, C., Teuteberg, F., Griese, K.M. and Topi, C. (2020), "The relationship between organizational culture, sustainability, and digitalization in SMEs: a systematic review", *Journal of Cleaner Production*, Vol. 275, p. 122944.

Ishikawa, J. (2012), "Transformational leadership and gatekeeping leadership: the roles of norm for maintaining consensus and shared leadership in team performance", *Asia Pacific Journal of Management*, Vol. 29 No. 2, pp. 265-283.

Jacobs, R., Mannion, R., Davies, H.T., Harrison, S., Konteh, F. and Walshe, K. (2013), "The relationship between organizational culture and performance in acute hospitals", *Social Science and Medicine*, Vol. 76, pp. 115-125.

Jenatabadi, H.S. (2015), "An overview of organizational performance index: definitions and measurements", available at: https://ssrn.com/abstract=2599439

Jung, D.I., Chow, C. and Wu, A. (2003), "The role of transformational leadership in enhancing organizational innovation: hypotheses and some preliminary findings", *The Leadership Quarterly*, Vol. 14 No. 4-5, pp. 525-544.

Jyoti, J. and Bhau, S. (2015), "Impact of transformational leadership on job performance: mediating role of leader–member exchange and relational identification", *SAGE Open*, Vol. 5 No. 4, p. 2158244015612518.

Jyoti, J. and Dev, M. (2015), "The impact of transformational leadership on employee creativity: the role of learning orientation", *Journal of Asia Business Studies*, Vol. 9 No. 1.

Katou, A.A. (2015), "Transformational leadership and organisational performance: three serially mediating mechanisms", *Employee Relations*, Vol. 37 No. 3.

Khalid, N., Islam, D.M.Z. and Ahmed, M.R.M. (2019), "Entrepreneurial training and organizational performance: implications for future", *Humanities and Social Sciences Reviews*, Vol. 7 No. 2, pp. 590-593.

Khan, H.U.R., Ali, M., Olya, H.G., Zulqarnain, M. and Khan, Z.R. (2018), "Transformational leadership, corporate social responsibility, organizational innovation, and organizational performance: symmetrical and asymmetrical analytical approaches", *Corporate Social Responsibility and Environmental Management*, Vol. 25 No. 6, pp. 1270-1283.

Kim, M., Beehr, T.A. and Prewett, M.S. (2018), "Employee responses to empowering leadership: a meta-analysis", *Journal of Leadership and Organizational Studies*, Vol. 25 No. 3, pp. 257-276.

Kim, S.L. (2019), "The interaction effects of proactive personality and empowering leadership and close monitoring behaviour on creativity", *Creativity and Innovation Management*, Vol. 28 No. 2, pp. 230-239.

Klasmeier, K.N. and Rowold, J. (2020), "A multilevel investigation of predictors and outcomes of shared leadership", *Journal of Organizational Behavior*, Vol. 41 No. 9, pp. 915-930.

Kline, R.B. (2011), "Principles and practice of structural equation modeling", 3rd ed., Guilford Press.

Koohang, A., Paliszkiewicz, J. and Goluchowski, J. (2017), "The impact of leadership on trust, knowledge management, and organizational performance: a research model", *Industrial Management and Data Systems*, Vol. 117 No. 3.

Le, P.B. and Lei, H. (2019), "Determinants of innovation capability: the roles of transformational leadership, knowledge sharing and perceived organizational support", *Journal of Knowledge Management*, Vol. 23 No. 3.

Li, L., Zheng, X., Sun, S. and Diaz, I. (2020), "Does subordinate moqi affect leadership empowerment?", *Leadership and Organization Development Journal*, Vol. 41 No. 8, pp. 1015-1034.

Lubis, F.R. and Hanum, F. (2020), "Organizational culture", *2nd Yogyakarta International Conference on Educational Management/Administration and Pedagogy (YICEMAP 2019)*". *Atlantis Press*, pp. 88-91.

Lukowski, W. (2017), "The impact of leadership styles on innovation management", *Marketing of Scientific and Research Organizations*, Vol. 24 No. 2, pp. 105-136.

McShane, SL. and Glinow, M. (2018), "Organizational behavior", *8th ed.*, *Emerging Knowledge. Global Reality*.

Manz, C.C. and Sims, H.P. (1989), *Super Leadership: Leading Others to Lead Themselves*, Prentice Hall, New York, NY.

Manz, C.C. and Sims, H.P. (1991), "Superleadership: beyond the myth of heroic leadership", *Organizational Dynamics*, Vol. 19 No. 4, pp. 18-35.

Manz, C.C. and Sims, H.P. (2001), *The New Superleadership: Leading Others to Lead Themselves*, Berrett-Koehler, San Francisco, CA.

Marcoulides, G.A. and Heck, R.H. (1993), "Organizational culture and performance: proposing and testing a model", *Organization Science*, Vol. 4 No. 2, pp. 209-225.

Martinez, E.A., Beaulieu, N., Gibbons, R., Pronovost, P. and Wang, T. (2015), "Organizational culture and performance", *American Economic Review*, Vol. 105 No. 5, pp. 331-335.

Matzler, K., Schwarz, E., Deutinger, N. and Harms, R. (2008), "The relationship between transformational leadership, product innovation and performancein SMEs", *Journal of Small Business and Entrepreneurship*, Vol. 21 No. 2, pp. 139-151.

Meng, J. and Berger, B.K. (2019), "The impact of organizational culture and leadership performance on PR professionals' job satisfaction: testing the joint mediating effects of engagement and trust", *Public Relations Review*, Vol. 45 No. 1, pp. 64-75.

Mokhber, M., bin Wan Ismail, W.K. and Vakilbashi, A. (2015), "Effect of transformational leadership and its components on organizational innovation", *Iranian Journal of Management Studies*, Vol. 8 No. 2, pp. 221-241.

Montalvan-Burbano, N., Perez-Valls, M. and Plaza-Ubeda, J. (2020), "Analysis of scientific production on organizational innovation", *Cogent Business and Management*, Vol. 7 No. 1, p. 1745043.

Mustaffa, Y.M.Y. (2012), "Factors influencing organizational performance in metro specialist hospital", Doctoral dissertation, Universiti Utara Malaysia, Sungai Petani, Kedah Darulaman.

Muthuveloo, R., Shanmugam, N. and Teoh, A.P. (2017), "The impact of tacit knowledge management on organizational performance: Evidence from Malaysia", *Asia Pacific Management Review*, Vol. 22 No. 4, pp. 192-201.

Nguyen, T.T., Mia, L., Winata, L. and Chong, V.K. (2017), "Effect of transformational-leadership style and management control system on managerial performance", *Journal of Business Research*, Vol. 70, pp. 202-213.

Nikcevic, G. (2016), "The influence of organizational culture on leadership-case study montenegro", *Tehnicki Vjesnik/Technical Gazette*, Vol. 23 No. 1.

Novoselich, B.J. and Knight, D.B. (2018), "Shared leadership in capstone design teams: social network analysis", *Journal of Professional Issues in Engineering Education and Practice*, Vol. 144 No. 4, p. 4018006.

Obeso, M., Hernández-Linares, R., López-Fernández, M.C. and Serrano-Bedia, A.M. (2020), "Knowledge management processes and organizational performance: the mediating role of organizational learning", *Journal of Knowledge Management*, Vol. 24 No. 8.

Paais, M. and Pattiruhu, J.R. (2020), "Effect of motivation, leadership, and organizational culture on satisfaction and employee performance", *The Journal of Asian Finance, Economics and Business*, Vol. 7 No. 8, pp. 577-588.

Papa, A., Dezi, L., Gregori, G.L., Mueller, J. and Miglietta, N. (2018), "Improving innovation performance through knowledge acquisition: the moderating role of employee retention and human resource management practices", *Journal of Knowledge Management*, Vol. 24 No. 3.

Paulsen, N., Callan, V.J., Ayoko, O. and Saunders, D. (2013), "Transformational leadership and innovation in an R&D organization experiencing major change", *Journal of Organizational Change Management*, Vol. 26 No. 3.

Pearce, C.L. (2004), "The future of leadership: combining vertical and shared leadership to transform knowledge work", *Academy of Management Executive*, Vol. 18 No. 1, pp. 47-57.

Pearce, C.L. and Sims, H.P. (2000), "Shared leadership: toward a multi-level theory of leadership", *Advances in Interdisciplinary Studies of Work Teams*, Emerald Publishing Limited.

Pearce, C.L. and Conger, J.A. (2003), "All those years ago", in Pearce, C.L. and Conger, J.A. (Eds), *Shared Leadership: Reframing the How's and Whys of Leadership*, Sage, Thousand Oaks, CA, pp. 1-18.

Pearce, C.L., Yoo, Y. and Alavi, M. (2004), "Leadership, social work and virtual teams: the relative influence of vertical vs. shared leadership in the nonprofit sector", in Riggio, R.E. and Smith-Orr, S. (Eds), *Im Proving Leadership in Nonprofit Organizations*, Jossey-Bass, San Francisco, pp. 180-203.

Peter, T., Braun, S. and Frey, D. (2015), "How shared leadership affects individual creativity and support for innovation", *Academy of Management Proceedings*, Vol. 2015 No. 1, p. 16212.

Pradhan, R.K., Panda, M. and Jena, L.K. (2017), "Transformational leadership and psychological empowerment: the mediating effect of organizational culture in indian retail industry", *Journal of Enterprise Information Management*, Vol. 30 No. 1.

Prabowo, R., Mustika, M.D. and Sjabadhyni, B. (2018), "How a leader transforms employees' psychological empowerment into innovative work behavior", *Psychological Research on Urban Society*, Vol. 1 No. 2, pp. 90-99.

Qu, R., Janssen, O. and Shi, K. (2015), "Transformational leadership and follower creativity: the mediating role of follower relational identification and the moderating role of leader creativity expectations", *The Leadership Quarterly*, Vol. 26 No. 2, pp. 286-299.

Razavi, S.H. and Attarnezhad, O. (2013), "Management of organizational innovation", *International Journal of Business and Social Science*, Vol. 4 No. 1.

Rhoades, L. and Eisenberger, R. (2002), "Perceived organizational support: a review of the literature", *Journal of Applied Psychology*, Vol. 87 No. 4, pp. 698-714.

Robbins, S.P. and Judge, T. (2018), *Organizational Behavior*, 7th ed., Pearson Always Learning.

Saeidi, S.P., Sofian, S., Saeidi, P., Saeidi, S.P. and Saaeidi, S.A. (2015), "How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction", *Journal of Business Research*, Vol. 68 No. 2, pp. 341-350.

Samad, S. (2012), "The influence of innovation and transformational leadership on organizational performance", *Procedia – Social and Behavioral Sciences*, Vol. 57, pp. 486-493.

Savovic, S. (2017), "The impact of dimensions of transformational leadership on post-acquisition performance of acquired company", *Ekonomski Horizonti*, Vol. 19 No. 2, pp. 95-108.

Scott-Young, C.M., Georgy, M. and Grisinger, A. (2019), "Shared leadership in project teams: an integrative multi-level conceptual model and research agenda", *International Journal of Project Management*, Vol. 37 No. 4, pp. 565-581.

Simao, L.B., Rodrigues, R.G. and Madeira, M.J. (2016), "External relationships in the organizational innovation", *RAI Revista de Administração e Inovação*, Vol. 13 No. 3, pp. 156-165.

Singh, S.K., Del Giudice, M., Tarba, S.Y. and De Bernardi, P. (2019), "Top management team shared leadership, market-oriented culture, innovation capability, and firm performance", *IEEE Transactions on Engineering Management*.

Song, Z., Gu, Q. and Cooke, F.L. (2020), "The effects of high-involvement work systems and shared leadership on team creativity: a multilevel investigation", *Human Resource Management*, Vol. 59 No. 2, pp. 201-213.

Spicer, A. (2020), "Organizational culture and COVID-19", *Journal of Management Studies*, Vol. 57 No. 8, pp. 1737-1740.

Svensson, P.G., Kang, S. and Ha, J.P. (2019), "Examining the influence of shared leadership and organizational capacity on performance and innovative work behavior in sport for development and peace", *Journal of Sport Management*, Vol. 33 No. 6, pp. 546-559.

Sweeney, A., Clarke, N. and Higgs, M. (2019), "Shared leadership in commercial organizations: a systematic review of definitions, theoretical frameworks and organizational outcomes", *International Journal of Management Reviews*, Vol. 21 No. 1, pp. 115-136.

Tidd, J. and Bessant, J.R. (2021), "Managing innovation: integrating technological, market and organizational change", John Wiley and Sons, USA.

Tseng, S.M. (2017), "Investigating the moderating effects of organizational culture and leadership style on IT-adoption and knowledge-sharing intention", *Journal of Enterprise Information Management*, Vol. 30 No. 4, pp. 583-604.

Wang, D., Waldman, D.A. and Zhang, Z. (2014), "A meta-analysis of shared leadership and team effectiveness", *Journal of Applied Psychology*, Vol. 99 No. 2, p. 181.

Wikhamn, W. (2019), "Innovation, sustainable HRM and customer satisfaction", *International Journal of Hospitality Management*, Vol. 76, pp. 102-110.

Wischnevsky, D.J. and Damanpour, F. (2008), "Radical strategic and structural change: occurrence, antecedents and consequences", *International Journal of Technology Management*, Vol. 44 Nos 1/2, pp. 53-80.

Wu, C.M. and Chen, T.J. (2018), "Collective psychological capital: linking shared leadership, organizational commitment, and creativity", *International Journal of Hospitality Management*, Vol. 74, pp. 75-84.

Wu, Q., Cormican, K. and Chen, G. (2020), "A meta-analysis of shared leadership: antecedents, consequences, and moderators", *Journal of Leadership and Organizational Studies*, Vol. 27 No. 1, pp. 49-64.

Yu, M., Vaagaasar, A.L., MUller, R., Wang, L. and Zhu, F. (2018), "Empowerment: the key to horizontal leadership in projects", *International Journal of Project Management*, Vol. 36 No. 7, pp. 992-1006.

Yukl, G.A. (1989), *Leadership in Organizations*, 2nd ed., Prentice Hall, Englewood Cliffs, NJ.

Yukl, G. and Gardner, W.L. (1989), "Leadership in organizations", 9th Edition, Pearsen, UK.

Yunis, M., Tarhini, A. and Kassar, A. (2018), "The role of ICT and innovation in enhancing organizational performance: the catalyzing effect of corporate entrepreneurship", *Journal of Business Research*, Vol. 88, pp. 344-356.

Zhu, J., Liao, Z., Yam, F. and Johnson, R.E. (2018), "Shared leadership: a state-of-the-art review and future research agenda", *Journal of Organizational Behavior*, Vol. 39 No. 7, pp. 834-852.

Zuraik, A. and Kelly, L. (2019), "The role of CEO transformational leadership and innovation climate in exploration and exploitation", *European Journal of Innovation Management*, Vol. 22 No. 1.

Further reading

Colquitt, J.A. and George, G. (2011), "Publishing in AMJ – part 1: Topic choice", *Academy of Management Journal*, Vol. 54 No. 3, pp. 432-435.

Garcia-Morales, V.J., Lloréns, Montes, F.J., Verdú and Jover, A.J. (2008), "The effects of transformational leadership on organizational performance through knowledge and innovation", *British Journal of Management*, Vol. 19 No. 4, pp. 299-319.

Sparrowe, R.T. and Mayer, K.J. (2011), "Publishing in AMJ – part 4: Grounding hypotheses", *Academy of Management Journal*, Vol. 54 No. 6, pp. 1098-1102.

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