Contents lists available at Science-Gate

International Journal of Advanced and Applied Sciences

Journal homepage: http://www.science-gate.com/IJAAS.html

Adaptive leader's toolkit: Strategies for enhancing employee performance through mediated pathways in the Saudi healthcare sector

Komal Khalid *, Ghufran Al Bakri

Department of Human Resource Management, King Abdulaziz University, Jeddah, Saudi Arabia

ARTICLE INFO

Article history:
Received 21 May 2024
Received in revised form
12 September 2024
Accepted 29 September 2024

Keywords:
Adaptive leadership
Employee performance
Occupational self-efficacy
Change management
Innovative work behavior

ABSTRACT

This study examines how adaptive leadership (AL) affects employee performance (EP) in Saudi Arabian healthcare organizations. It also explores how leaders can effectively manage employees during the major changes expected as part of Saudi Arabia's Vision 2030 and the Health Sector Transformation Program. The research looks at how occupational self-efficacy (OSE), acceptance of change, and innovative work behavior (IWB) mediate the relationship between AL and EP. Data was gathered from 456 healthcare workers in Saudi Arabia. SPSS-28 and SmartPLS4 were used to analyze the data and test the hypotheses. Reliability was assessed through Cronbach's Alpha, rho_A, and composite reliability, while validity was tested using AVE, Heterotrait-Monotrait (HTMT), and the Fornell-Larcker criterion. Descriptive statistics, Pearson correlation analysis, and Structural Equation Modeling (SEM) were applied to confirm the measurement model and test the hypotheses. The model evaluation included the adjusted R2, normed fit index, standardized root mean square residual, and Q2predict. The findings show that AL positively impacts EP in healthcare organizations in Saudi Arabia. OSE, acceptance of change, and IWB also influence this relationship. The study emphasizes the importance of AL in healthcare organizations facing ongoing change, as it helps empower employees and improve their creativity, performance, and well-being. Training in AL and change management strategies can be used to promote resilience, communication, and innovation, fostering a positive organizational culture during periods of transition.

1. Introduction

The Saudi 2030 Vision initiatives drive rapid organizational changes, which can be implemented in various ways. Hence, with the availability of multiple resources nowadays, leaders are responsible for experimenting and exploring to find optimal methods for specific situations. Organizational change is an ongoing process, and achieving it successfully relies on effective change management and proper implementation (Goyal and Patwardhan, 2018). The adaptive leadership (AL) model was introduced as a way for leaders to guide their teams through change toward a desirable future (Heifetz and Linsky, 2002). AL empowers leaders to address challenges and enable change, and adopting AL behaviors guides employees through uncertainty (Heifetz and Linsky, 2002). According to Heifetz and Linsky (2002) and Heifetz et al. (2009), adaptive leaders create opportunities for learning and development while challenging their team to tackle difficult problems with support. AL involves identifying and addressing complex, systemic problems that require individuals and organizations to learn and adapt. Leaders must distinguish between adaptive and technical challenges and recognize the archetypes of adaptive change to address them effectively. Adaptive leaders manage emotional and psychological aspects of change by regulating distress and creating a safe environment for individuals to express themselves (Heifetz and Linsky, 2002). They use strategies like creating a holding environment, providing direction and protection, and regulating personal distress to promote resilience and open communication. Through AL, leaders navigate complex situations, promote learning and innovation, and find sustainable solutions (Heifetz and Linsky, 2002; Heifetz et al., 2009). Managing the changes in

* Corresponding Author.
Email Address: kmuddassar@kau.edu.sa (K. Khalid)
https://doi.org/10.21833/ijaas.2024.10.006
Corresponding author's ORCID profile:
https://orcid.org/0000-0001-7220-6962

healthcare sectors requires considering various leadership aspects for more effective workflow (Alotaiby and Krenyácz, 2024). Santra and Alat (2022) identified AL competencies while interviewing doctors in their study to comprehend the necessary leadership competencies for adaptive events. AL creates a holding environment where people can regulate stress, receive guidance, maintain discipline, and feel empowered (Santra and Alat, 2022; Northouse, 2016).

Employee performance (EP) can be defined as the level of work quality and quantity an employee achieves while fulfilling their assigned responsibilities (Utin and Yosepha, 2019). It plays a crucial role in the organization's success, and a successful organization knows that its most valuable assets are its employees (Paais and Pattiruhu, 2020). Various factors, including leadership style, can impact EP (Katsaros et al., 2020; Utin and Yosepha, 2019). Occupational self-efficacy (OSE) refers to an individual's belief in their capabilities to accomplish specific tasks (Bandura, 1977). Appelbaum and Hare (1996) emphasized the importance of OSE theory in current and future trends in human resource management. Leadership support can provide employees with valuable resources, helping them develop their abilities and meet expectations. This positive environment created by leadership can increase self-efficacy (Ashfaq et al., 2021).

Moreover, leaders significantly impact the fostering and shaping of employees' innovative behavior (De Jong and Den Hartog, 2007). Innovative work behavior (IWB) is when employees actively introduce new ideas, products, or services. Innovation is crucial for an organization's success as it enhances creativity, improves performance, and increases job satisfaction (De Jong and den Hartog, 2010; Scott and Bruce, 1994). A higher level of OSE in the workplace leads to increased creativity and IWB. Change acceptance (CA) is the ability to embrace change positively. It arises from the belief that change can improve one's work and resources, along with confidence in one's ability to manage it (Di Fabio and Gori, 2016; Vakola, 2014). Today, the ability to adapt and respond positively to change is highly valued at the employee and organizational levels (Beasley et al., 2021). Leaders who provide guidance and support can increase employees' readiness to change (Metwally et al., 2019).

In Saudi Arabia, the 2030 Vision aims to reduce economic dependence on oil by privatizing some governmental sectors, including healthcare. The Health Sector Transformation Program (HSTP) aims to create a patient-centered healthcare system, promote financial sustainability and transparency, set national standards for quality and governance, and encourage stakeholder collaboration. The program seeks to enhance healthcare services' quality, access, and efficiency and create a strong and resilient healthcare system that can provide better health outcomes for everyone. The government developed a healthcare restructuring plan, but careful consideration and ongoing implementation monitoring are necessary for success (Alasiri and Mohammed, 2022). The private sector is also vital in achieving Saudi Arabia's national health goals and improving healthcare quality (Al-Hanawi et al., 2019). As promising as these initiatives and changing plans are, they produce uncertainty and ambiguity for organizations that transfer to some employees. Alharbi (2018) stressed the importance of human interactions and leadership in preparing for change. Addressing human issues and ensuring strong leadership support is crucial for successfully implementing the HSTP and for healthcare to adapt to changes (Alharbi, 2018). Heifetz and Linsky (2002) introduced AL to address the risks of leading people through changes, such as breaking familiarity, causing resistance, and avoiding uncertainty.

Additionally, Prince Mohammed bin Salman, the Royal Highness, believes that Saudi Arabia is a wealthy nation, and its true wealth lies in the potential of its people, as mentioned in Saudi Arabia's Vision for 2030. This approach fosters supportive leadership styles such as AL. Embracing AL practices allows organizations to thrive and seize evolving opportunities in Saudi Arabia's dynamic business landscape. The healthcare sector globally faces unique challenges that require innovative and adaptable leadership approaches. The healthcare system of Saudi Arabia is experiencing substantial changes to enhance service delivery, patient care, and operational efficiency. The key to achieving these objectives is the healthcare employee's performance, which is affected by numerous elements, including leadership styles, OSE, CA, and IWB. AL style is described as a leader's ability to promote flexibility, learning, and problem-solving in complex and varying environments. It is an important factor that could improve EP in this context. However, empirical research investigating the influence of AL on EP within the Saudi healthcare sector still needs to be explored. Particularly, there needs to be more knowledge of how adaptive leaders contribute to acquiring healthcare goals by impacting key emotional, psychological, and behavioral employee outcomes. Moreover, the processes and procedures in which AL affects EP, including the potential mediating roles of OSE, CA, and IWB, need to be better understood. OSE states an employee's belief in their capability to perform job-related tasks effectively, which is vital for EP and adaptability to change. CA and IWB are also important as they reveal employees' readiness to accept new procedures and processes, resulting in their innovative work contributions. This knowledge gap is important because of the rapid changes in healthcare requirements, especially considering international health crises (e.g., COVID-19), technological advancements, and higher patient expectations. Understanding the changing aspects of AL and EP and the mediating roles of psychological and behavioral factors is vital for fostering effective leadership strategies that can implement resilient, innovative, and high-performing healthcare workplaces and the workforce in Saudi Arabia.

Hence, this study aims to fill this gap by exploring the relationship between AL style and EP in Saudi healthcare leaders. It seeks to understand how AL activities can enhance healthcare EP to achieve organizational objectives. Moreover, this study also explores the mediating roles of OSE, CA, and IWB in the relationship between AL and EP. This research could provide information to policymakers to help them design leadership development programs and strategies that will eventually contribute to enhancing healthcare delivery and patient care in Saudi Arabia.

2. Literature review

2.1. Theoretical framework

The Job Demands-Resources (JD-R) theory highlights the connection between work characteristics and employee well-being (Demerouti et al., 2001). Job demands refer to the aspects of a job that require effort, while job resources assist individuals in achieving their goals and reducing demands. When high demands are combined with low resources, negative outcomes are more likely to occur, but high resources can help to balance the negative effects of high demands (Tummers and Bakker, 2021; Demerouti et al., 2001). Tummers and Bakker (2021) found that leadership can impact three elements of the JD-R theory: Job demands, job resources, and personal resources. Leaders can also moderate the relationship between these resources and motivation and influence follower job crafting and self-undermining behaviors. AL is considered a resource that helps employees deal with job demands. According to Heifetz and Linsky (2002), it empowers employees to tackle uncertain challenges and encourages IWB. Social exchange theory (SET) involves equity in relationships, where a fair exchange of rewards and costs is necessary to avoid dissatisfaction and strain. The theory explains how two parties interact using a cost-benefit analysis to determine risks and benefits (Blau, 1986). Many recent studies have used social exchange theory to analyze the relationship between various leaders and followers (Farid et al., 2022; Qurrahtulain et al., 2022; Wang et al., 2022; Gui et al., 2021). This study uses the social exchange theory perspective to understand the relationship between adaptive leaders and their employees.

2.2. AL

AL focuses on the leader's role in their subordinates' jobs and the specific changes in the work environment they find themselves in. Instead of being seen as a problem solver, the leader mobilizes people to tackle challenges. An adaptive leader challenges others to face difficult problems by providing them with the space and opportunity to learn new ways of dealing with inevitable changes in assumptions, perceptions, beliefs, attitudes, and behaviors that may arise while addressing real-world issues (Northouse, 2016).

According to Heifetz and Laurie (1997) and Heifetz (1994), certain behaviors can be adopted by leaders to effectively guide employees through challenges and periods of uncertainty. While there is a general order to these behaviors, many are concurrently implemented. Collectively, these behaviors comprise a recipe for becoming an adaptive leader. These behaviors are discussed in the following.

2.2.1. Get on the balcony

Leaders step back to observe patterns, dynamics, and interactions to understand the big picture and identify patterns (Heifetz and Laurie, 1997). This approach helps them make informed decisions and react strategically to adaptive challenges. Leaders can avoid getting caught up in daily details and identify conflicts in values and power dynamics among people. "Getting on the balcony" does not mean detaching from a conflict or disengaging from the challenges. Rather, it means gaining a broader perspective; leaders can identify underlying causes, anticipate potential consequences, and think strategically (Northouse, 2016).

2.2.2. Identify adaptive challenges

Adaptive challenges are complex, systemic problems that require organizations and individuals to learn and adapt (Heifetz, 1994). Leaders face two challenges: Technical and adaptive (Northouse, 2016). Technical challenges can be resolved using existing knowledge and skills, while adaptive challenges require changing people's beliefs, attitudes, and values (Northouse, 2016). According to Heifetz and Linsky (2002) and Northouse (2016), there are four archetypes of adaptive change to distinguish between complex adaptive challenges and technical challenges or archetypes: First, the gap between espoused values and behavior, when an organization fails to demonstrate the values, it claims to uphold. Second, competing commitments are when an organization has multiple goals that clash. Third, speaking the unspeakable is when controversial issues are avoided or ignored. Fourth is work avoidance, when individuals avoid addressing challenging issues (Heifetz and Linsky, 2002; Northouse, 2016).

2.2.3. Regulate distress

When adaptive challenges occur, people with an intolerance of uncertainty experience anxiety and distress (Rettie and Daniels, 2021), leading to resistance as an outcome of employees' cognitive and behavioral reactions toward change (Khaw et al., 2023). Adaptive leaders manage the emotional aspects of change, create safe spaces for expression, promote resilience, and regulate distress to ensure

productivity (Northouse, 2016). Northouse (2016) proposed three strategies leaders can employ to maintain appropriate stress levels. Leaders must create a Holding Environment and provide direction, protection, orientation, and conflict management, establish clear expectations for behavior, regulate personal distress, and seek support when needed (Northouse, 2016).

2.2.4. Maintain disciplined attention

Adaptive leaders must prioritize essential work despite distractions like personal matters and power dynamics. By keeping the work at the center of attention and providing guidance, adaptive leaders help ensure that employees stay on track and engaged in their responsibilities (Heifetz and Linsky, 2002). These leaders avoid quick solutions and difficult conversations. They encourage exploration and learning, even if it is out of their comfort zone. By staying focused, they promote critical thinking and innovation, leading to adaptive solutions (Northouse, 2016).

2.2.5. Give the work back to the people

Adaptive leaders delegate work, engage stakeholders, and foster shared ownership. They encourage autonomy, decision-making, and distributed leadership. This builds adaptive capacity, leading to better collaboration and problem-solving (Heifetz and Linsky, 2002). By giving the work back to the people, leaders empower individuals and teams to take ownership of the adaptive challenges they face. This behavior fosters engagement, creativity, and a sense of ownership, leading to more sustainable and effective solutions (Northouse, 2016).

2.2.6. Protect leadership voices from below

Leadership voices below are the perspectives and ideas of non-authoritative individuals and groups, which adaptive leaders value and seek out. They provide platforms for all levels of the organization to contribute, generating new perspectives and enhancing decision-making (Northouse, 2016). The main objective of AL is to achieve adaptive work, which is the process that adaptive leaders guide their work towards (Northouse, 2016). Adaptive work requires effective communication between the leader and employees. A holding environment is crucial to provide safety for individuals as they face changes. Adaptive leaders invest significant energy in establishing and maintaining the holding environment (Northouse, 2016).

2.3. EP

According to Çetin and Aşkun (2018), performance refers to an individual's ability to carry out tasks that benefit the development of an organization's core competencies. Individual work performance measures how well employees fulfill their job responsibilities. It has three types: Task performance (TP), contextual performance (CP), and counterproductive work behavior. Proactive, creative, and adaptive performance are related to an employee's initiative, innovation, and adaptability (Koopmans et al., 2013).

In alignment with the Saudi government's developed healthcare restructuring plan, it is crucial to carefully consider and continuously monitor the implementation process to ensure success (Alasiri and Mohammed, 2022). This study looked at how AL style impacts EP in the healthcare industry in Saudi Arabia. AL helps employees adjust to new conditions and improve performance (Northouse, 2016). It involves tackling root causes, involving employees in decision-making, and prioritizing diverse perspectives. Adaptive leaders create a safe space for employees to express their concerns, which fosters open communication and a positive work environment. Based on what AL offers and from the social exchange theory perspective, this study hypothesized:

H_1: AL significantly impacts EP in Saudi Healthcare organizations.

2.4. OSE

Self-efficacy refers to an individual's confidence in carrying out tasks and overcoming challenges. It is based on Albert Bandura's theory that self-beliefs shape behavior (Bandura, 1997; Bandura, 1986). self-efficacy is crucial for job-related behavior and outcomes. Higher levels result in better performance outcomes (Stajkovic and Luthans, 1998). OSE refers to employees' beliefs in their ability to perform specific job tasks successfully (Jungert et al., 2013).

Supportive leadership fosters a positive work environment, inspires and protects subordinates, and provides resources to improve abilities and meet expectations (Chughtai et al., 2023; Ashfaq et al., 2021). Chughtai et al. (2023) highlighted the importance of AL in enhancing employees' self-efficacy and confidence when facing challenges. Adaptive leaders practice supporting subordinates by motivating their followers to embrace new ideas, increase confidence, and navigate complex situations through experimentation, learning, and collaboration (Chughtai et al., 2023; Heifetz et al., 2009). Therefore, this study hypothesized that:

H_2: AL significantly impacts employee's OSE.

2.5. IWB

IWB refers to employees' proactive, creative actions to introduce new ideas, processes, products, or services (Scott and Bruce, 1994). Innovation is vital for organizational success; it leads to positive outcomes, including increased creativity, performance, and job satisfaction (De Jong and den

Hartog, 2010). To help achieve Saudi Arabia's Vision 2030 of improving the healthcare system with patient-centered care and financial sustainability, it is crucial to encourage IWB, leading to increased quality of care for all patients. Klaeijsen et al. (2018) discovered that OSE mediates the relationship between basic psychological needs and IWB. Employees who possess high levels of OSE and perceive themselves as capable of performing their jobs are likelier to exhibit creativity (Islam et al., 2024; Klaeijsen et al., 2018). Previous studies have shown that OSE positively impacts employees' IWB (Islam et al., 2024; Chughtai et al., 2023). Therefore, we hypothesized that:

H_3: Employee's OSE significantly impacts their IWB.

Wijayana et al. (2022) concluded that IWB positively and significantly affects performance. Moreover, Asbari et al. (2020) discovered that the relationship between leadership and EP can be enhanced by IWB, leading to an elevation of EP. Moreover, Purwanto et al. (2022) concluded in their study that IWB positively impacts employee job performance, implying that an increase in IWB will lead to an increase in EP, while a decrease in IWB will lead to a decrease in EP. Prince Mohammed bin Salman believes Saudi Arabia's wealth lies in its people, and organizations can improve performance by investing in employees. Based on that, we aimed to verify the following hypothesis in this study.

H_4: Employee's IWB significantly impacts EP.

This study examined how IWB mediates in the relationship between OSE and EP. As per previous research, employees with high levels of OSE and confidence in their job capabilities are likelier to exhibit creativity. This highlights the positive impact of OSE on IWB (Islam et al., 2024; Chughtai et al., 2023; Klaeijsen et al., 2018). Moreover, IWB has been found to have a positive impact on performance by Wijayana et al. (2022), Purwanto et al. (2022), and Asbari et al. (2020). Accordingly, we investigated the relationship between OSE, employee IWB, and EP.

H_5: Employee IWB significantly mediates the relationship between OSE and EP.

2.6. CA

CA is beneficial for one's well-being. It involves welcoming change in work and other activities, leading to personal and professional growth (Di Fabio and Gori, 2016). Not all employees can accept change; some may resist change due to their attachment to familiar ways, fear of change, and cognitive dissonance (Hubbart, 2023). Doubting one's ability to deal with organizational change can lead to distress and prevent effective management. High change-related efficacy leads to less distress and greater persistence in handling change (Jimmieson et al., 2004; Bandura, 1977). In other words, employees with OSE exhibit high levels of CA.

Furthermore, Montani et al. (2012) discovered that commitment to change and IWB are not just individual traits but are significantly influenced by supportive leaders. As Sengupta et al. (2023) found, leadership plays an essential role in shaping employees' IWB, and their readiness for change mediates this influence. In essence, how leaders support their employees directly impacts their CA and, consequently, their IWB.

H_6: CA significantly mediates the relationship between employees' OSE and IWB.

Individuals with high OSE will put in more effort and persist longer in their tasks, leading to improved EP (Çetin and Aşkun, 2018). Shaikh et al. (2020) conducted a cross-cultural study that demonstrated the variations in the strength of the relationship between OSE and EP across different cultural contexts. They stated that collective employee OSE and organizational social support might dominate its impact on EP. In their study, Kamar et al. (2020) found that employees who are ready for change embrace it rather than avoid it positively and significantly, which impacts their performance. Moreover, Purwanto et al. (2022) found that higher IWB leads to better EP, while decreased IWB, on the other hand, results in poor EP, as IWB increases employees' enthusiasm to deal with changes. AL creates a safe and empowering work environment that fosters employee confidence, embraces change, and encourages creativity (Heifetz and Linsky, 2002), resulting in higher levels of OSE, CA, and IWB and, ultimately, better EP.

H_7: OSE, CA, and employee IWB sequentially and significantly mediate the relationship between AL and EP.

Based on the literature review, the theoretical framework is designed and shown in Fig. 1.

3. Methodology

3.1. Participants

The data was gathered from employees working in healthcare organizations in Saudi Arabia, both in the public and private sectors. A snowball technique was used to distribute the survey. A group of 20 employees, including administrative staff and healthcare providers, were given a link to a survey created on Google Forms. They were then asked to share the survey with their colleagues and acquaintances. The survey was prepared in Arabic and English, with a reversed translation, and was open to Saudi and non-Saudi employees. Participation was voluntary, and participants were assured that their information would be confidential.

A total of 456 employees responded to the questionnaire. After performing the Cook and

Leverage test to identify outliers, 20 participants were excluded, leaving 436 valid responses. Among the retained data, 74.6% of the respondents were public sector employees, and 93.2% were Saudi nationals. The male respondents accounted for 51.3%, while 48.7% were female. Most participants, 67.8%, were below 40 years old, while the remaining 32.2% were 40 years or older. Furthermore, 70.8% of the respondents had less than 15 years of experience, whereas 29.2% had 16 years and above.

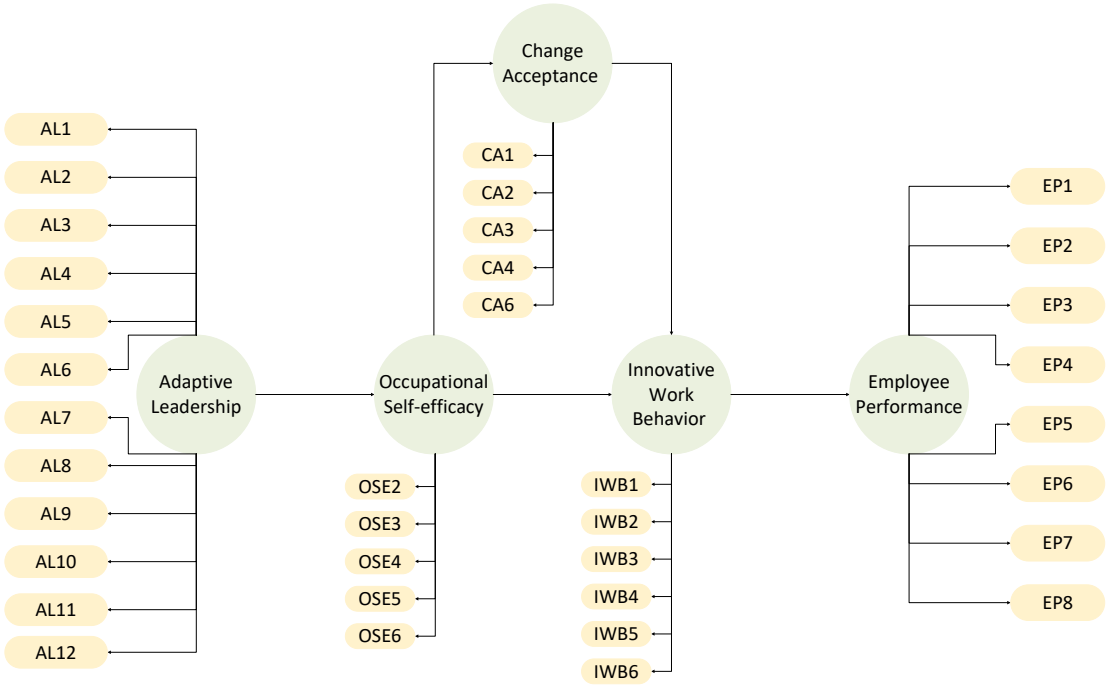

Fig. 1: Theoretical framework

3.2. Measures

The study gathered the demographic data of the participants through self-reporting. The collected demographic variables were organization sector (public or private), nationality (Saudis or non-Saudis), gender (male or female), and age, divided into seven groups (less than 25 years, 25-30 years, 31-35 years, 36-40 years, 41-45 years, 46-50 years, and above 50 years). Lastly, six groups were based on years of experience (Less than one year, 1-5 years, 6-10 years, 11-15 years, 16-20 years, and above 20 years).

AL was assessed by evaluating six key dimensions: Getting on the balcony, identifying adaptive challenges, regulating distress, maintaining disciplined attention, giving work back to people, and protecting leadership voices from below (Northouse, 2016). After consulting an expert in human resource management and leadership, twelve items were selected out of thirty from the questionnaire designed by Northouse (2016) to measure AL. Two items were chosen for each dimension, and the original items were shortened to avoid confusion among the respondents. For the first dimension, getting on the balcony, one measuring statement was: "When issues arise within the organization, my supervisor/manager steps back to evaluate the interactions, behavior, and relationships of the people concerned." To measure identifying adaptive challenges dimension, the statement was: "When controversial issues arise, my supervisor/manager addresses them directly instead of avoiding them." One of the statements to measure regulating distress was: "My supervisor/manager can emotionally comfort others as they work through intense issues." Additionally, to assess and maintain disciplined attention, the statement was, "My supervisor/manager thrives on helping people find new ways of coping with organizational changes." Lastly, the following statements measure the dimensions of giving work back to people and protecting leadership voices: "My supervisor/manager encourages me to take the initiative in defining and solving problems and to think for myself" and "During times of change, my supervisor/manager actively welcomes input from all team members, regardless of position" respectively.

A measuring instrument known as Individual work performance (IWP) was utilized to evaluate different aspects of EP. The IWP was developed by Koopmans et al. (2013), and the selected indicators are related to the purpose of this study. The instrument measures specific aspects of EP with a total of eight items. These eight items represented three dimensions of the IWB scale: Task performance and contextual performance. The IWP focuses on indicators such as, "In the past three months, I kept in mind the results that I had to achieve in my work." This scale measures how well an employee focuses on task performance. The statement "In the past three months, I worked on keeping my job knowledge and skills up to date" measures employee contextual performance.

Rigotti et al. (2008) generated the instrument to measure OSE as a shorter version of the OSE scale. In that study, prior research on self-efficacy was incorporated to compare the relationship between OSE and performance. Six items were substantially adapted and reformulated for the work context (Rigotti et al., 2008). After the reliability and validity test of the responses, five items were utilized to measure OSE, and one item was dropped because of low factor loading. An example of a statement from the scale was: "I can remain calm when facing difficulties in my job because I can rely on my abilities."

Six items out of a seven-item scale adapted from Janssen (2000) were utilized to measure IWB, and one was excluded from the analysis due to low factor loading. For instance, the statements "I create new ideas for improvements," "I transform innovative ideas into useful applications," and "I try to get support for innovative ideas" are included to measure the mentioned dimensions, respectively. Respondents used the scale to rate their AL, IWB, OSE, and performance from their perspective, with one indicating (strongly disagree) and five indicating (strongly agree).

CA was measured using the acceptance of change scale by Di Fabio and Gori (2016); it was designed to self-report one's willingness to accept or move toward change. This measure assesses three scale dimensions: Positive reaction to change, cognitive flexibility, and support for change. An example of these measurements is "I can handle the changes in relationships with others." Finally, five items out of eight were utilized in this part of the questionnaire. Three items were removed from the measurement due to low factor loading. A scale ranging from 1 (not at all) to 5 (a great deal) was utilized to evaluate the respondents' CA.

3.3. Procedure

The data analysis was performed using SPSS-28 and SmartPLS4 software, ensuring accuracy and efficiency. This methodology aimed to derive meaningful insights from the data. Since the data for all the variables were gathered from a single source, it raises concerns about the validity of the results due to the possibility of common method bias (CMB). However, several measures were taken at different levels to reduce the possibility of CMB. In the questionnaire design phase, the questionnaire language was Arabic (Native language), which is understandable, clear, and concise. A pretest of the survey was conducted to ensure that the researchers comprehended the questions as intended. In the questionnaire distribution phase, to reduce social desirability bias, all respondents were informed and ensured that their responses would be confidential and could not be traced back. Harman's single-factor analysis was also conducted to address this issue and avoid any bias caused by a shared source. The findings revealed that the single factor explains only 32.856% of the total variance. The total variance extracted is less than 50% and less than the recommended threshold, showing no CMB. This was targeted by the questionnaire, which was designed with measures in place to reduce desirability bias, such as ensuring anonymous responses and emphasizing voluntary participation.

Data reliability and validity were assessed using confirmatory analysis, with Cronbach Alpha and AVE as measures. Descriptive statistics, Pearson correlation, and mediated-mediation regression via Structural equation modeling (SEM) using SmartPLS4 were used to validate the model and test hypotheses. Results showed the impact of independent variables on the dependent variable and contextual factors influencing variable relationships.

4. Results and discussions

4.1. Assessment of reflective measurement

For the assessment of reflective measurement and descriptive and correlation analysis, we used SPSS. SEM is used for discriminate analysis using SmartPLS4. To initiate an assessment of reflective measurement, we disputed the factor loading of the items as a first step in assessing the validity and reliability of the used measurement models. The items that had loadings less than 0.40 were excluded from the measurements.

The factor loadings for each variable's items were calculated as follows: For AL, the range was from 0.411 to 0.806; for OSE, it ranged from 0.433 to 0.58; for IWB, it ranged from 0.438 to 0.640; for CA, it ranged from 0.456 to 0.542; and for EP, it ranged from 0.427 to 0.779. Additional reliability and validity tests were conducted to ensure the consistency and accuracy of the study's findings and to determine multicollinearity issues within the data. A construct's reliability was assessed using Cronbach's alpha, rho-A, and composite reliability (CR), with a minimum threshold of 0.70 for all reliability criteria (Hair et al., 2020). Table 1 shows the reliability test results for the variables of this study.

Convergent validity was measured by the average variance evaluation (AVE). Validity was assessed through the AVE test, and a value of 0.5 or higher is a good benchmark for evaluation (Hair et al., 2020). The variance inflation factor (VIF) was calculated to address multicollinearity issues. The results indicated that no issues existed, as shown in Table 1.

Further, the Heterotrait-Monotrait (HTMT) Ratio was calculated to assess construct discriminant validity. Acceptable results require a ratio below 0.85 (Henseler et al., 2015). Similarly, the Fornell-Larcker criterion is another method for evaluating discriminant validity. The square root of the AVE must exceed the correlation constants between one variable and other variables in the model (Fornell and Larcker, 1981). The results in Table 2 indicate that the data of this study have discriminant validity.

Table 1: Assessment of reflective measurement

Constructs	Items	Loadings	Cronbach's alpha	rho-A	CR	AVE	VIF
AL	AL1- AL12	0.411 – 0.806	0.829	0.841	0.864	0.587	1.197-1.450
OSE	OSE2 - OSE 6	0.433 – 0.581	0.761	0.763	0.809	0.511	1.295-1.523
IWB	IWB1-IWB5, IWB7	0.438 – 0.640	0.847	0.849	0.887	0.568	1.418-1.979
CA	CA1- CA4, CA6	0.456 – 0.542	0.741	0.744	0.798	0.591	1.314-1.470
EP	EP1-EP8	0.427 – 0.779	0.800	0.804	0.851	0.528	1.212-2.178

CR: Composite reliability; AVE: Average variance extracted; VIF: Variance inflation factor

Table 2: Discriminant analysis (HTMT and Fornell-Larcker criterion)

	HTMT criterion					Fornell-Larcker criterion				
	AL	OSE	IWB	CA	EP	AL	OSE	IWB	CA	EP
AL						**0.766**				
OSE	0.658					0.741	**0.715**			
IWB	0.663	0.694				0.646	0.708	**0.754**		
CA	0.677	0.717	0.776			0.624	0.697	0.722	**0.769**	
EP	0.753	0.749	0.641	0.756		0.677	0.677	0.694	0.736	**0.727**

The bold numbers in diagonal in the Fornell-Larcker section are the square root of AVE of each construct, and other numbers are correlations between constructs

4.2. Descriptive statistics and correlation analysis

Table 3 presents the descriptive statistics for the demographic variables, including age, gender, years of experience, and the study variables: AL, OSE, EP, IWB, and CA. The data presented provided valuable insights into the significant presence of the study variables. Participants were divided into seven age groups, with the majority, 27%, in the (31-35 years) age group, resulting in a mean of (3.903) for the age variable. Moreover, 51.3% of the respondents were males, while 48.7% were females, with a mean gender variable of (1.487). The average years of experience reported by the respondents were (3.657). This result indicates a significant variation among the six assigned years of experience groups. However, most respondents had 11-15 years and 6-10 years of experience, accounting for 23.32% and 22.52% respectively. These statistics summarize the demographic characteristics of the study sample, offering insights into the age distribution, gender representation, and levels of professional experience.

The study found that the respondents showed strong performance levels overall, with EP having the highest mean score of (4.112). However, it is worth noting that all variables measured in the study were significantly present among the respondents. The lowest mean score for IWB (3.961) was still considered relatively high. The means for AL, OSE, and CA were (4.025), (4.092), and (3.982), respectively, indicating the significant existence and relevance of these factors in the study.

Pearson correlation analysis was conducted to examine the associations among the constructs (Table 3). All correlations were significant at the 0.01 level (2-tailed). The strongest correlation observed for AL was the correlation coefficient of (r=0.671) between AL and EP. The lowest correlation was observed between AL and OSE (r=0.502). On the other hand, AL had the highest correlation with EP (r=0.671). As for EP, the highest correlation was with IWB (r=0.692), and the lowest was with CA (r=0.660). As indicated in Table 3, the highest correlation amongst all constructs was found between IWB and CA (r=0.792).

Table 3: Descriptive statistics and correlation analysis

Descriptive statistics			Pearson correlations analysis				
	Mean	SD	AL	OSE	IWB	CA	EP
Age	3.903	1.672					
Gender	1.487	0.501					
Experience	3.657	1.520					
AL	4.025	0.384	1				
OSE	4.092	0.448	0.502**	1			
IWB	3.961	0.481	0.535**	0.716**	1		
CA	3.982	0.449	0.513**	0.687**	0.792**	1	
EP	4.112	0.378	0.671**	0.665**	0.692**	0.660**	1

**: Correlation is significant at the 0.01 level (2-tailed)

4.3. Hypothesis testing and structural equation modeling

Hypothesis testing and structural equation modeling were conducted by using Smart PLS 4. The hypothesis testing results, presented in Table 4 and Fig. 2, support all hypotheses of our study. H1 was supported since the path coefficient (β) value was positive (0.288), and the T-value exceeded three (t-value=8.192, p-value<0.001). These findings indicate that AL directly, positively, and significantly impacts EP. The second hypothesis, that AL directly, positively, and significantly impacts employees' OSE, was also supported. The path coefficient (β) for this relationship was 0.570 (t-value=13.581, p-value<0.001), providing evidence in favor of the hypothesis. The third hypothesis was that OSE directly, positively, and significantly impacts IWB and was supported (β=0.261, t-value=6.449, p-value<0.001). At the same time, hypothesis 4, that employee's IWB directly, positively, and significantly

impacts EP, was also accepted (β=0.694, t-value=20.648, p-value<0.001).

For indirect impacts of variables, subsequently, hypothesis 5 (i.e., employee IWB significantly mediates the relationship between OSE and EP) was also supported (β=0.281, t-value=7.879, p-value<0.001). CA significantly mediates the relationship between employees' OSE and IWB; it has been observed that the mediation of CA enhances the impact of OSE on IWB (β=0.467, t-value=14.804, p-value<0.001); hence, the H6 is accepted. Lastly, OSE, CA, and IWB sequentially and significantly mediate the relationship between AL and EP is also accepted (β=0.384, t-value=14.212, p-value<0.001). It is noticeable that the mediation of OSE, CA, and IWB enhances the impact of AL on EP, thus accepting H7. Moreover, the differences between the lower limit confidence interval (LLCI) and the upper limit confidence interval (ULCI) of the bias-corrected for all hypotheses were all positive values, which supports and confirms all the hypotheses.

Table 4: Hypothesis testing (structural equation modeling)

Hypothesis	Direct/indirect effect	B-value	T-value	p-value	Bias	Bias corrected		Hypothesis support
						2.5 % LLCI	97.50% ULCI	
H_1	AL -> EP	0.288	8.192	0.000	0.003	0.214	0.349	Supported
H_2	AL -> OSE	0.570	13.581	0.000	0.003	0.468	0.637	Supported
H_3	OSE -> IWB	0.261	6.449	0.000	0.000	0.182	0.341	Supported
H_4	IWB -> EP	0.694	20.648	0.000	0.002	0.615	0.750	Supported
H_5	OSE-> IWB-> EP	0.281	7.879	0.000	0.001	0.125	0.243	Supported
H_6	OSE -> CA -> IWB	0.467	14.804	0.000	0.002	0.406	0.529	Supported
H_7	AL -> OSE-> CA-> IWB-> EP	0.384	14.212	0.000	0.001	0.342	0.523	Supported

LLCI: Lower limit confidence interval; ULCI: Upper limit confidence interval

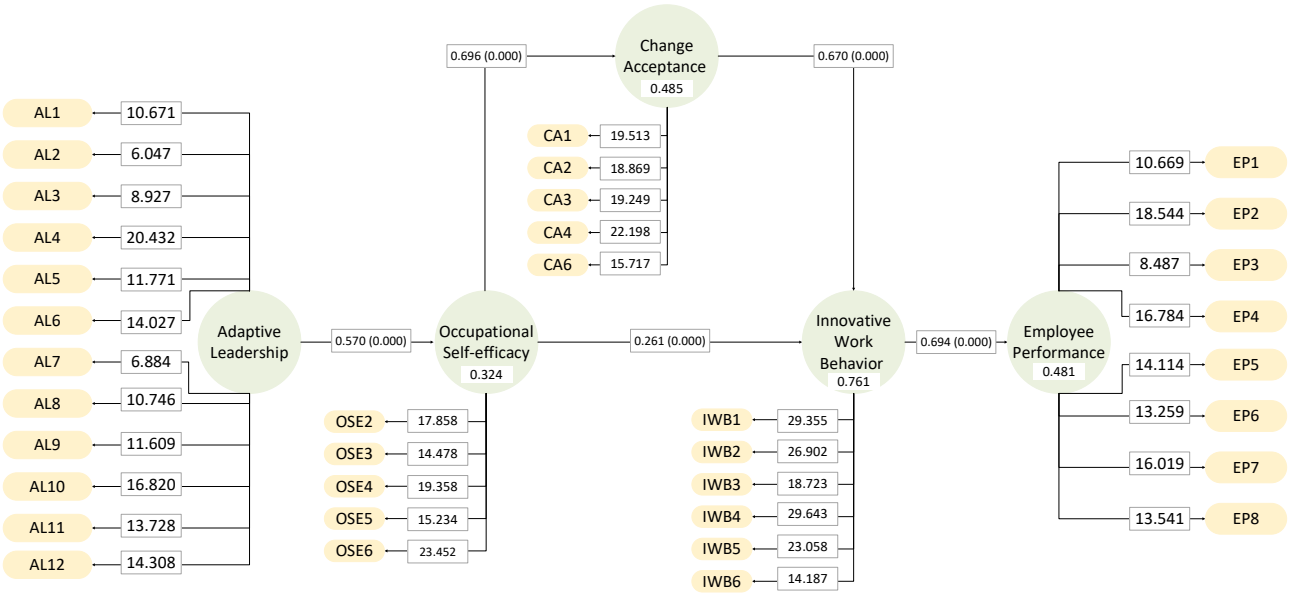

Fig. 2: Hypothesis testing

4.4. Model evaluation

Lastly, model evaluation tests were conducted, including R^2_{adj}, SRMR, NFI, and $Q^2_{predict}$ (Table 5). $Q^2_{predict}$ and Q^2 effect are SEM measures for assessing predictive and explanatory power. Both tests predict the effect of the independent variable on the other variables. As shown in Table 5, AL has good predicts on all the endogenous variables, for OSE (R^2_{adj}=0.321, $Q^2_{predict}$=0.305, Q^2 effect=Medium); IWB (R^2_{adj}=0.759, $Q^2_{predict}$=0.596, Q^2 effect=Large); CA (R^2_{adj}=0.483, $Q^2_{predict}$=0.464, Q^2 effect=Large); and EP (R^2_{adj}=0.479, $Q^2_{predict}$=0.515, Q^2 effect=Large). Standardized Root Mean Square Residual (SRMR) measures the difference between actual data and predicted model values, and it is (0.065), while the Normed Fit Index (NFI) evaluates overall model fit (0.924). That indicates that the model fit is good (Shmueli et al., 2019).

Table 5: Model evaluation

Variables	R^2_{adj}	SRMR	NFI	$Q^2_{Predict}$	Q^2 Effect
AL					
OSE	0.321			0.305	Medium
IWB	0.759	0.065	0.924	0.596	Large
CA	0.483			0.464	Large
EP	0.479			0.515	Large

SRMR: Standardized root mean square residual; NFI: Normed fit index; Q^2: Predictive relevance

4.5. Discussions

An organization that values its employees recognizes that their performance makes it successful (Paais and Pattiruhu, 2020). Leadership is one of the tools that can impact and enhance EP (Katsaros et al., 2020; Utin and Yosepha, 2019). The Health Sector Transformation Program (HSTP) is transforming Saudi Arabia's healthcare organizations to achieve patient-centered care, financial sustainability, quality enhancement, and accessibility, all in line with the Saudi 2030 Vision. Changes in any organization can create uncertainty and ambiguity, leading to stress and a negative impact on EP if effectively managed through leadership. Large-scale and unpredictable changes are common in modern healthcare settings (Beasley et al., 2021).

This study examined AL, which creates a secure environment for open communication and fosters a positive work culture. It manages the emotional aspects of change, promotes employee resilience, and involves them in decision-making, improving their judgment. Adaptive leaders understand employees well, identify behavior patterns, and recognize underlying causes of employee stress (Heifetz and Linsky, 2002; Northouse, 2016). The results showed a significant effect of AL on EP, as evidenced by a strong correlation coefficient ($r=0.671$) and path coefficient ($\beta=0.288$).

According to the data analysis, there are significant relationships between the variables. The means for OSE, IWB, and CA demonstrate their significance. IWB has the highest correlation with EP, which indicates the effect of IWB on EP, as stated by many studies previously (Wijayana et al., 2022; Purwanto et al., 2022; Asbari et al., 2020). On the other hand, CA has the lowest correlation with EP, which indicates that resistance to change negatively impacts performance. Embracing change improves performance, boosts profitability, and fosters accountability and trust (Hubbart, 2023).

It has been discovered that AL helps to promote OSE, IWB, and CA. The supported hypotheses confirm that AL directly and positively impacts employee OSE and IWB (H_2). AL provides resources, fosters growth, enhances confidence, and encourages the creation of new ideas to face challenging situations (Chughtai et al., 2023; Ashfaq et al., 2021; Heifetz et al., 2009).

Additionally, direct and indirect effects have been observed between OSE, IWB, and EP. OSE enhances employees' IWB, which directly and positively affects EP, where employee IWB mediates the relationship between OSE and EP. These direct relationships highlighted by previous studies that have highlighted that employees with high levels of OSE who reflect confidence are more likely to have high levels of IWB (Islam et al., 2024; Chughtai et al., 2023; Klaeijsen et al., 2018). Moreover, further studies have identified IWB as a significant predictor of high EP (Wijayana et al., 2022; Purwanto et al., 2022; Asbari et al., 2020). However, when conducting the data analysis, the mediation role of IWB between OSE and EP was observed (H_5).

The study demonstrates that CA plays a mediating role in enhancing the effect of OSE on IWB (H_6). This supports (H_6) the idea that confidence in one's ability to handle organizational change can reduce distress and increase persistence (Jimmieson et al., 2004). Moreover, leadership that involves employees and guides them through uncertainty fosters CA and ultimately results in more IWB (Sengupta et al., 2023).

Finally, strong OSE employees persist longer and work harder, leading to better EP (Çetin and Aşkun, 2018). Similarly, employees who are ready for change and those with higher IWB tend to perform better (Purwanto et al., 2022; Kamar et al., 2020). Therefore, it is noteworthy that the mediation of OSE, CA, and IWB further enhances the effect of AL on EP in Saudi healthcare organizations, thereby accepting (H_7).

4.6. Theoretical implications

The study emphasizes the significance of AL in providing resources to employees working in constantly changing healthcare organizations. This study found that employees' OSE, belief in their abilities, resilience, CA, and IWB are personal resources that can enhance their performance and enable them to meet job demands. AL can offer employees the necessary resources to empower and improve their personal resources. This supports the Job Demands-Resources (JD-R) theory, which explains the relationship between job characteristics and employee well-being. Demerouti et al. (2001) explained that job demands require effort, while job resources help achieve goals and reduce demands.

Moreover, the study shows how AL, viewed through Social Exchange Theory (SET), improves employees' creativity and performance. SET stresses fair and equitable relationships, where a balanced exchange of rewards and costs is essential to prevent dissatisfaction and strain (Blau, 1986). The findings of this study indicate that AL plays a significant role in determining SET. AL is characterized by responsiveness and empowerment, which fosters trust, transparency, and mutual respect, thus cultivating a sense of psychological safety (Heifetz and Linsky, 2002; Northouse, 2016). Adaptive leaders and employees exchange resources; when leaders inspire full investment in work, they motivate employees to exceed expectations, leading to higher CA, IWB, and EP.

4.7. Practical implication

This study's findings greatly benefit organizations going through a period of change. By examining the factors identified in this study, organizations can gain insights into why their employees may struggle during times of transition and take steps to avoid these issues. One effective strategy for achieving this is to implement training

programs that focus on developing AL skills among healthcare sector leaders in Saudi Arabia. These programs should prioritize cultivating open communication, emotional intelligence, resilience-building techniques, and decision-making skills to manage change and foster a positive work culture effectively.

Organizations should develop change management strategies prioritizing communication, stakeholder engagement, and training programs. Organizations can foster a sense of ownership and commitment by involving employees in the change process and valuing their feedback. Training on stress management, mindfulness practices, and coping strategies can enhance resilience and adaptability.

Finally, it is recommended that organizations provide training opportunities to help employees build confidence and develop their skills. This may include exercises to enhance OSE, mentorship programs, and goal-setting activities. To encourage innovation, organizations should also create initiatives like innovation labs, platforms for sharing ideas, and opportunities for cross-functional collaboration. Performance evaluations should recognize and reward employees with high levels of self-efficacy and innovative behavior. Regular feedback and coaching should also support ongoing growth and development. Acknowledging employee efforts and contributions throughout the change process to celebrate progress and inspire resilience, creativity, and adaptability is important.

4.8. Limitations and future directions

The study's data collection was limited to certain healthcare sector workers in the kingdom, and some participants needed to complete the questionnaires accurately. Two strategies are recommended to overcome these limitations. Firstly, longitudinal studies would be beneficial in assessing the lasting impact of AL on EP and organizational outcomes. By monitoring changes in leadership practices, employee attitudes, and organizational performance over time, researchers can gain valuable insights into the effectiveness and sustainability of AL interventions.

The second proposal is to use qualitative research methods such as interviews, focus groups, and case studies to understand better the underlying mechanisms and processes through which AL influences EP, OSE, CA, and IWB. Qualitative approaches can provide rich and nuanced insights into healthcare sector employees' and leaders' experiences and perceptions. The Saudi Arabia 2030 vision is implemented in various sectors, including healthcare. However, this study is limited to the healthcare sector. To overcome this limitation, conducting comparative studies across different sectors of the economy, such as education, finance, and manufacturing, can be helpful. These studies can examine how AL, EP, OSE, CA, and IWB vary across diverse organizational contexts. Researchers can highlight sector-specific challenges and opportunities for leadership development and change management by comparing findings from multiple sectors.

Furthermore, investigating industry-specific factors influencing CA and organizational effectiveness can provide insight into how regulatory environments, market dynamics, and technological advancements interact with leadership practices to shape employee attitudes toward change and EP outcomes within specific industries. Explore the impact of employee involvement and participation strategies on CA, IWB, and organizational outcomes. Investigate how participatory decision-making processes, employee empowerment initiatives, and team-based approaches to change management influence employees' OSE, engagement, and performance in different sectors.

5. Conclusion

The study affirmed that AL significantly impacts EP in Saudi Arabia's healthcare organizations. The qualities of AL, such as flexibility, resilience, and the ability to navigate uncertainty, are crucial in creating a work environment that enables employee growth and success, especially during times of significant change. Furthermore, the study highlights the importance of individual factors, such as OSE, in augmenting the positive effects of AL. When employees believe strongly in their ability to perform job-related tasks effectively and are willing to accept and adapt to changes, they are better equipped to thrive under the leadership of adaptive leaders. Additionally, promoting IWB among employees further enhances the positive impact of AL on EP. These findings emphasize the holistic nature of leadership effectiveness, highlighting the interplay between leadership practices and individual characteristics in fostering employee success within constantly changing organizational contexts.

Compliance with ethical standards

Ethical considerations

This study was conducted following ethical standards for research involving human participants. Informed consent was obtained from all participants, who were assured of the confidentiality and anonymity of their responses. Participation was voluntary, and no identifiable personal information was collected. This research complies with relevant institutional and ethical guidelines.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

Alasiri AA and Mohammed V (2022). Healthcare transformation in Saudi Arabia: An overview since the launch of Vision 2030. Health Services Insights.
https://doi.org/10.1177/11786329221121214
PMid:36081830 PMCid:PMC9445529

Al-Hanawi MK, Khan SA, and Al-Borie HM (2019). Healthcare human resource development in Saudi Arabia: Emerging challenges and opportunities-A critical review. Public Health Reviews, 40: 1.
https://doi.org/10.1186/s40985-019-0112-4
PMid:30858991 PMCid:PMC6391748

Alharbi MF (2018). An analysis of the Saudi health-care system's readiness to change in the context of the Saudi National health-care plan in Vision 2030. International Journal of Health Sciences, 12(3): 83-87.
PMid:29896076 PMCid:PMC5969787

Alotaiby RAM and Krenyácz É (2024). Challenges and opportunities in healthcare reforms in pre-and post-COVID-19 crisis: A case of Jordan. Problems and Perspectives in Management, 22(1): 80-93.
https://doi.org/10.21511/ppm.22(1).2024.08

Appelbaum SH and Hare A (1996). Self-efficacy as a mediator of goal setting and performance: Some human resource applications. Journal of Managerial Psychology, 11(3): 33-47.
https://doi.org/10.1108/02683949610113584

Asbari M, Bernarto I, Purwanto A, Wijayanti LM, and Hyun CC (2020). The impacts of leadership and culture on work performance in service company and innovative work behavior as mediating effects. Journal of Research in Business, Economics, and Education, 2(1): 283-291.

Ashfaq F, Abid G, and Ilyas S (2021). Impact of ethical leadership on employee engagement: Role of self-efficacy and organizational commitment. European Journal of Investigation in Health, Psychology and Education, 11(3): 962-974.
https://doi.org/10.3390/ejihpe11030071
PMid:34563084 PMCid:PMC8544222

Bandura A (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84(2): 191-215.
https://doi.org/10.1037//0033-295X.84.2.191 **PMid:847061**

Bandura A (1986). Social foundations of thought and action: A social cognitive theory. Prentice Hall, Englewood Cliffs, USA.

Beasley L, Grace S, and Horstmanshof L (2021). Assessing individual readiness for change in healthcare: A review of measurement scales. Journal of Health Organization and Management, 35(8): 1062-1079.
https://doi.org/10.1108/JHOM-10-2020-0414
PMid:34254503

Blau PM (1986). Exchange and power in social life. 2nd Edition, Routledge, New York, USA.
https://doi.org/10.4324/9780203792643

Çetin F and Aşkun D (2018). The effect of occupational self-efficacy on work performance through intrinsic work motivation. Management Research Review, 41(2): 186-201.
https://doi.org/10.1108/MRR-03-2017-0062

Chughtai MS, Syed F, Naseer S, and Chinchilla N (2023). Role of adaptive leadership in learning organizations to boost organizational innovations with change self-efficacy. Current Psychology, 43: 27262–27281.
https://doi.org/10.1007/s12144-023-04669-z
PMid:37359696 PMCid:PMC10132955

De Jong J and Den Hartog D (2010). Measuring innovative work behaviour. Creativity and Innovation Management, 19(1): 23-36. https://doi.org/10.1111/j.1467-8691.2010.00547.x

De Jong JP and Den Hartog DN (2007). How leaders influence employees' innovative behaviour. European Journal of innovation management, 10(1): 41-64.
https://doi.org/10.1108/14601060710720546

Demerouti E, Bakker AB, Nachreiner F, and Schaufeli WB (2001). The job demands-resources model of burnout. Journal of Applied Psychology, 86(3): 499-512.
https://doi.org/10.1037//0021-9010.86.3.499
PMid:11419809

Di Fabio A and Gori A (2016). Developing a new instrument for assessing acceptance of change. Frontiers in Psychology, 7: 802.
https://doi.org/10.3389/fpsyg.2016.00802
PMid:27303356 PMCid:PMC4884749

Farid T, Iqbal S, Basahal AS, Khattak A, Khan MK, and Salam MA (2022). "Doing good and feeling good" relationship between authentic leadership with followers' work engagement: The mediating role of hedonic and eudaimonic wellbeing. Frontiers in Public Health, 10: 1018599.
https://doi.org/10.3389/fpubh.2022.1018599
PMid:36466465 PMCid:PMC9716201

Fornell C and Larcker DF (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. Journal of Marketing Research, 18(3): 382-388.
https://doi.org/10.1177/002224378101800313

Goyal C and Patwardhan M (2018). Role of change management using ADKAR model: A study of the gender perspective in a leading bank organisation of India. International Journal of Human Resources Development and Management 18(3-4): 297-316. https://doi.org/10.1504/IJHRDM.2018.093442

Gui C, Zhang P, Zou R, and Ouyang X (2021). Servant leadership in hospitality: A meta-analytic review. Journal of Hospitality Marketing and Management, 30(4): 438-458.
https://doi.org/10.1080/19368623.2021.1852641

Hair JF, Howard MC, and Nitzl C (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. Journal of Business Research, 109: 101-110.
https://doi.org/10.1016/j.jbusres.2019.11.069

Heifetz RA (1994). Leadership without easy answers. Harvard University Press, Cambridge, USA.
https://doi.org/10.4159/9780674038479

Heifetz RA and Laurie DL (1997). The work of leadership. Harvard Business Review, 75(1): 124-134.

Heifetz RA and Linsky M (2002). Leadership on the line: Staying alive through the dangers of leading. 1st Edition, Harvard Business Review Press, Cambridge, USA.

Heifetz RA, Grashow A, and Linsky M (2009). The practice of adaptive leadership: Tools and tactics for changing your organization and the world. Harvard Business Press, Cambridge, USA.

Henseler J, Ringle CM, and Sarstedt M (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43: 115-135.
https://doi.org/10.1007/s11747-014-0403-8

Hubbart JA (2023). Organizational change: The challenge of change aversion. Administrative Sciences, 13(7): 162.
https://doi.org/10.3390/admsci13070162

Islam T, Zahra I, Rehman SU, and Jamil S (2024). How knowledge sharing encourages innovative work behavior through occupational self-efficacy? The moderating role of entrepreneurial leadership. Global Knowledge, Memory and Communication, 73(1/2): 67-83.
https://doi.org/10.1108/GKMC-02-2022-0041

Janssen O (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. Journal of Occupational and Organizational Psychology, 73(3): 287-302.
https://doi.org/10.1348/096317900167038

Jimmieson NL, Terry DJ, and Callan VJ (2004). A longitudinal study of employee adaptation to organizational change: The role of

change-related information and change-related self-efficacy. Journal of Occupational Health Psychology, 9(1): 11-27. https://doi.org/10.1037/1076-8998.9.1.11 **PMid:14700455**

Jungert T, Koestner RF, Houlfort N, and Schattke K (2013). Distinguishing source of autonomy support in relation to workers' motivation and self-efficacy. The Journal of Social Psychology, 153(6): 651-666. https://doi.org/10.1080/00224545.2013.806292 **PMid:24236378**

Kamar K, Novitasari D, Asbari M, Winanti W, and Goestjahjanti FS (2020). Enhancing employee performance during the COVID-19 pandemic: The role of readiness for change mentality. Jurnal Dinamika Manajemen, 11(2): 154-166. https://doi.org/10.15294/jdm.v11i2.25279

Katsaros KK, Tsirikas AN, and Kosta GC (2020). The impact of leadership on firm financial performance: The mediating role of employees' readiness to change. Leadership and Organization Development Journal, 41(3): 333-347. https://doi.org/10.1108/LODJ-02-2019-0088

Khaw KW, Alnoor A, Al-Abrrow H, Tiberius V, Ganesan Y, and Atshan NA (2023). Reactions towards organizational change: A systematic literature review. Current Psychology, 42(22): 19137-19160. https://doi.org/10.1007/s12144-022-03070-6 **PMid:35431526 PMCid:PMC9006211**

Klaeijsen A, Vermeulen M, and Martens R (2018). Teachers' innovative behaviour: The importance of basic psychological need satisfaction, intrinsic motivation, and occupational self-efficacy. Scandinavian Journal of Educational Research, 62(5): 769-782. https://doi.org/10.1080/00313831.2017.1306803

Koopmans L, Bernaards C, Hildebrandt V, Van Buuren S, Van der Beek AJ, and De Vet HC (2013). Development of an individual work performance questionnaire. International Journal of Productivity and Performance Management, 62(1): 6-28. https://doi.org/10.1108/17410401311285273

Metwally D, Ruiz-Palomino P, Metwally M, and Gartzia L (2019). How ethical leadership shapes employees' readiness to change: The mediating role of an organizational culture of effectiveness. Frontiers in Psychology, 10: 2493. https://doi.org/10.3389/fpsyg.2019.02493 **PMid:31798489 PMCid:PMC6874171**

Montani F, Odoardi C, and Battistelli A (2012). Explaining the relationships among supervisor support, affective commitment to change, and innovative work behavior: The moderating role of coworker support. Applied Psychology Bulletin, 264: 43-57.

Northouse PG (2016). Leadership: Theory and practice. 7th Edition, Sage, Thousand Oaks, CA.

Paais M and Pattiruhu JR (2020). Effect of motivation, leadership, and organizational culture on satisfaction and employee performance. The Journal of Asian Finance, Economics and Business, 7(8): 577-588. https://doi.org/10.13106/jafeb.2020.vol7.no8.577

Purwanto A, Novitasari D, and Asbari M (2022). Tourist satisfaction and performance of tourism industries: How the role of innovative work behaviour, organizational citizenship behaviour? Journal of Industrial Engineering and Management Research, 3(1): 1-12. https://doi.org/10.7777/jiemar.v3i1.246

Qurrahtulain K, Bashir T, Hussain I, Ahmed S, and Nisar A (2022). Impact of inclusive leadership on adaptive performance with the mediation of vigor at work and moderation of internal locus of control. Journal of Public Affairs, 22(1): e2380. https://doi.org/10.1002/pa.2380

Rettie H and Daniels J (2021). Coping and tolerance of uncertainty: Predictors and mediators of mental health during the COVID-19 pandemic. American Psychologist, 76(3): 427-437. https://doi.org/10.1037/amp0000710 **PMid:32744841**

Rigotti T, Schyns B, and Mohr G (2008). A short version of the occupational self-efficacy scale: Structural and construct validity across five countries. Journal of Career Assessment, 16(2): 238-255. https://doi.org/10.1177/1069072707305763

Santra S and Alat P (2022). Adaptive leadership of doctors during COVID-19. Leadership in Health Services, 35(2): 246-266. https://doi.org/10.1108/LHS-08-2021-0073 **PMid:34882361**

Scott SG and Bruce RA (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. Academy of Management Journal, 37(3): 580-607. https://doi.org/10.5465/256701

Sengupta S, Bajaj B, Singh A, Sharma S, Patel P, and Prikshat V (2023). Innovative work behavior driving Indian startups go global–The role of authentic leadership and readiness for change. Journal of Organizational Change Management, 36(1): 162-179. https://doi.org/10.1108/JOCM-05-2022-0156

Shaikh M, Akbar W, and Khan NR (2020). Examining mediating impact of self-efficacy between organizational culture and employee performance: Empirical findings from banking industry of Pakistan. International Journal of Management, 11(9): 1511-1525.

Shmueli G, Sarstedt M, Hair JF, Cheah JH, Ting H, Vaithilingam S, and Ringle CM (2019). Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict. European Journal of Marketing, 53(11): 2322-2347. https://doi.org/10.1108/EJM-02-2019-0189

Stajkovic AD and Luthans F (1998). Social cognitive theory and self-efficacy: Going beyond traditional motivational and behavioral approaches. Organizational Dynamics, 26(4): 62-74. https://doi.org/10.1016/S0090-2616(98)90006-7

Tummers LG and Bakker AB (2021). Leadership and job demands-resources theory: A systematic review. Frontiers in Psychology, 12: 722080. https://doi.org/10.3389/fpsyg.2021.722080 **PMid:34659034 PMCid:PMC8514935**

Utin NH and Yosepha SY (2019). The model of employee performance. International Review of Management and Marketing, 9(3): 69-73. https://doi.org/10.32479/irmm.8025

Vakola M (2014). What's in there for me? Individual readiness to change and the perceived impact of organizational change. Leadership and Organization Development Journal, 35(3): 195-209. https://doi.org/10.1108/LODJ-05-2012-0064

Wang L, Sun Y, Li J, Xu Y, Chen M, Zhu X, and Wang D (2022). Effects of Ambidextrous leadership on employees' work behavior: The mediating role of psychological empowerment. Frontiers in Psychology, 13: 862799. https://doi.org/10.3389/fpsyg.2022.862799 **PMid:35651581 PMCid:PMC9150796**

Wijayana TT, Rahayu MKP, and Wahyuningsih SH (2022). The influence of self efficacy on performance with innovation work behavior as an intervening variable (case study on PT. Indah Kiat employee). Economics and Business Quarterly Reviews, 5(3): 166-177. https://doi.org/10.31014/aior.1992.05.03.445