

The role of employee engagement towards innovative work behavior mediated by leadership in small businesses



Sultan Alateeg^{1,*}, Abdulaziz Alhammadi²

¹Department of Business Administration, College of Business Administration, Majmaah University, Majmaah, 11952, Saudi Arabia

²Business Administration Department, College of Administrative and Financial Sciences, Saudi Electronic University, Riyadh, Saudi Arabia

ARTICLE INFO

Article history:

Received 21 October 2023

Received in revised form

28 January 2024

Accepted 29 January 2024

Keywords:

Employee engagement

Leadership

Innovative work behavior

Structural equation modeling

ABSTRACT

This study aims to examine how employee involvement, leadership, and innovation-related actions are linked in small businesses in Saudi Arabia. As Saudi Arabia works on diversifying its economy and considers innovation essential for growth, this research seeks to identify key factors and processes that promote innovation in companies. A survey was conducted across different small businesses in Saudi Arabia to gather information from employees. Advanced statistical methods, like structural equation modeling (SEM), were used to analyze the data and understand the relationships being studied. The results show a strong, positive link between how engaged employees are and their innovation-related actions in Saudi Arabian small businesses. The study also reveals how crucial leadership is in this process, demonstrating how leaders can either encourage or hinder employees' ability to contribute to innovation. These findings are useful for small business owners and leaders in Saudi Arabia, guiding them on how to foster an environment that supports innovation and improves their competitive edge in the global market. This research is also valuable for policymakers, business leaders, and academics interested in promoting innovation and long-term growth in this vital part of Saudi Arabia's economy.

© 2024 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

In today's competitive environment, the growth and success of organizations rely heavily on their ability to generate and implement exceptional ideas. Innovation is thus imperative for organizational survival and achievement (Anderson et al., 2014). According to Shalley et al. (2004), organizational innovation entails the process through which employees generate, advocate, and execute creative ideas. Encouraging employees to engage in innovative work behaviors is essential for fostering innovation within organizations. Innovative work behavior refers to the generation, promotion, realization, and implementation of novel and valuable ideas that enhance products, services, and work processes (Yuan and Woodman, 2010). Although much research has examined aspects that

affect workers' innovative behaviors, it still needs to be determined how individual and environmental factors relate to promoting such behaviors (Khalili, 2016; Le, 2020). A comprehensive understanding of the combined effects of these factors will contribute to the enhancement of future interventions aimed at promoting innovation within the organizational context. Despite the significance of innovation, particularly within organizations, only limited research has focused on innovative work behaviors (Park and Jo, 2018). Understanding how to encourage creative behaviors at the person level has ramifications for policy and the current body of research since public sector employees are essential to providing public services (Baafi et al., 2021).

Innovative work behavior is a crucial aspect of organizational success in today's rapidly changing and competitive business landscape. It involves employees actively engaging in generating new ideas, problem-solving, experimentation, collaboration, adaptability, and embracing an entrepreneurial mindset (AlEssa and Durugbo, 2022; Demircioglu et al., 2023). Organizations that foster a culture of innovation and support employees' engagement in innovative work behavior are better equipped to adapt to challenges, seize opportunities,

* Corresponding Author.

Email Address: s.alateeg@mu.edu.sa (S. Alateeg)

<https://doi.org/10.21833/ijaas.2024.02.016>

Corresponding author's ORCID profile:

<https://orcid.org/0000-0001-7791-3236>

2313-626X/© 2024 The Authors. Published by IASE.

This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

and drive continuous improvement (Hussain and Zhang, 2023). Organizations may foster an atmosphere that fosters creativity, supports risk-taking, and enables staff to contribute their innovative ideas and solutions, resulting in sustained success and competitive advantage by understanding and fostering innovative behavior (Koednok and Sungsanit, 2018).

While the importance of employee engagement and innovative work behavior in small businesses is widely recognized, the role of leadership in moderating this relationship remains a critical yet relatively unexplored aspect (Erhan et al., 2022; Karimi et al., 2023). Effective leadership is crucial for creating an environment that nurtures and sustains employee engagement while encouraging innovation. Leaders have the capacity to shape organizational culture, provide necessary resources and support, and establish a shared vision that fosters a climate of creativity and innovation. Leadership plays a critical role in influencing and promoting innovative work behavior within organizations. Effective leadership practices can significantly impact employees' motivation, creativity, and willingness to engage in innovative behaviors (Ahmad et al., 2023; Karimi et al., 2023). Leaders who prioritize and value innovation create a culture that encourages and supports innovative work behavior. They set a clear vision for innovation and communicate its importance to employees, inspiring them to think creatively and explore new ideas. These leaders provide resources, guidance, and support to employees, enabling them to experiment, take risks, and implement innovative solutions (AlEssa and Durugbo, 2022). Furthermore, leaders who create a psychologically safe environment foster innovative work behavior. Leaders inspire and empower workers to contribute their ideas and engage in creative work behavior by fostering an environment where people feel comfortable speaking up, taking chances, and learning from setbacks (Leong and Rasli, 2014).

In the dynamic business landscape of today, characterized by rapid change and intense competition, innovation has emerged as a critical driver of growth, competitive advantage, and long-term sustainability for organizations. Within the context of Saudi Arabia, small businesses play a pivotal role in the country's economic development, fostering job creation, entrepreneurship, and overall economic diversification (Alsughayir, 2017; Alshahrani, 2023). To thrive and remain competitive in this environment, small businesses must cultivate a work environment that fosters high levels of employee engagement and encourages innovative work behavior among their workforce (Alt et al., 2023; Ayoub et al., 2023).

This study aims to explore how employee engagement affects innovative work behavior in small businesses in Saudi Arabia. It specifically looks at the mediating role of leadership in this process. By focusing on the unique conditions of small businesses in Saudi Arabia, the research intends to

uncover the important roles that employee engagement and leadership play in encouraging innovative behavior. The findings of the study are expected to offer valuable information for business leaders and policymakers, helping them to develop strategies and initiatives that not only enhance employee engagement but also create a supportive environment for innovation. These efforts are likely to contribute to the growth and competitiveness of small businesses in the region.

This study is divided into multiple sections. The first section points out the gap in existing research and explains why this study is needed to fill that gap and meet the research objective. The second section introduces the conceptual framework and lays out the development of hypotheses. The third section details the study's design, including the methods used for collecting and analyzing data. The fourth section presents the findings using structural equation modeling analysis. The final section discusses the results, interpreting their significance and implications. The study concludes by acknowledging its limitations and suggesting areas for future research.

2. Literature review and hypothesis development

2.1. Innovative work behavior

IWB plays a crucial role in driving progress and success for individuals, workplaces, organizations, and national economies, particularly in countries that must adapt to evolving changes and competitive pressures while also aiming to enhance industrial product values (Koednok and Sungsanit, 2018). Innovation, crucial for progress and success, is driven by IWB, extending beyond idea generation to the intentional implementation of new and useful ideas. Scholars emphasize the strategic importance of valuing and supporting creative innovation within the workforce. IWB is defined as an individual's behavior aimed at initiating and intentionally introducing innovative ideas or processes within a work role, group, or organization. Companies that effectively cultivate innovation are often empowered, endorsed, and motivated by the creative contributions of their employees (Leong and Rasli, 2014). Scholars such as Rowley et al. (2011) and Tidd and Bessant (2018) emphasized the significance of valuing and supporting creative innovation within the workforce as a strategic human resource investment. Similar to Sattabut (2012), who emphasized that creative thinking is a crucial skill that helps people to come up with novel ideas while carrying out their responsibilities. Organizations that foster successful innovation recognize their employees as crucial resources capable of delivering original and inventive performances. Consequently, evaluating the innovative work performance of employees becomes essential for companies operating in environments of increasingly rapid changes and challenges (Kleysen and Street, 2001).

Innovation theory has repeatedly emphasized that innovation encompasses more than just creativity; it also involves putting ideas into action (e.g., King and Anderson (2002)). Therefore, Innovative Work Behavior (IWB) goes beyond idea generation and includes the necessary actions to implement ideas and achieve improvements that enhance personal and/or business performance. Following Farr and Ford (1990), IWB is defined as an individual's behavior aimed at initiating and intentionally introducing new and useful ideas, processes, products, or procedures within a work role, group, or organization. This definition captures both the initiation and implementation of creative ideas. Unlike creativity, IWB focuses on producing practical and applied solutions that result in innovative outcomes. While there is an overlap between IWB and creativity, the distinction lies in the emphasis on applying creative ideas in the former. The process of individual innovation involves problem identification, idea generation, seeking support through coalition building, and actively bringing the idea to life. A key figure in this process, known as a "champion," plays a crucial role in overcoming obstacles and advancing creative ideas.

While there is a close relationship between IWB and creativity, distinctions between the two have been highlighted by West and Farr (1990) and Scott and Bruce (1994). Unlike creativity, which focuses on the generation of novel and useful ideas related to products, services, processes, and procedures (as exemplified by Oldham and Cummings (1996) and Amabile, 1988), IWB is explicitly geared toward producing practical and applied solutions that result in innovative outcomes. However, it is essential to recognize that creativity continues to play a vital role within IWB, especially during the initial stages of the innovation process, where problems or performance gaps are identified and innovative ideas are formulated to address these challenges (West, 2002).

Despite the distinctions that exist between IWB and creativity, there is a notable overlap, and the creative literature has begun to place increased emphasis on applying creative ideas. For instance, Mumford (2003) underscores the significance of examining 'late cycle' skills, which involve putting creative ideas into practice, as a crucial aspect of creative work. Similarly, Basadur (2004) incorporated 'solution implementation' into his framework for guiding the creative process. Championing involves gaining support, persuading, influencing, and negotiating. Once an idea secures backing, effective implementation requires significant effort, a results-driven mindset, and actions such as refining existing products, creating new ones, and integrating innovations into work processes. This comprehensive approach to IWB highlights its multifaceted nature in driving tangible outcomes in personal and organizational performance. Hence, the difference between IWB and creativity seems to be more about the focus of activity rather than a deep-seated difference. The

process of innovation at an individual level starts with identifying problems and coming up with ideas or possible solutions, which might be new or adapted from existing ones. Next, innovative people look for support or sponsorship for their ideas by building alliances, aiming to secure backing from important stakeholders. In the final step, the innovator plays an active role in realizing the idea, which could include tasks like creating a prototype or model of the innovation or helping to implement it in various ways. Similarly, in entrepreneurship, recognizing opportunities is seen as a preliminary step to idea generation. Studies have shown that this process is influenced by certain personality traits and the environment (Krueger, 2000; Shane, 2003).

The person who leads the introduction of innovations is frequently not someone who is technically appointed but rather someone who has a strong personal commitment to a certain concept and the capacity to persuade others to accept it (Kanter, 1988). Such a person is often referred to as a "champion," characterized as an informal figure who actively overcomes obstacles within the organization to advance a creative idea (Shane, 1994) or someone who steps up to drive efforts in bringing creative ideas to fruition (Kleysen and Street, 2001). This championing role can involve promoting either their own ideas or those of others.

Championing encompasses a range of actions associated with gaining support and forming alliances, including activities such as persuading, influencing colleagues or management, and assertively pushing and negotiating (Van de Ven, 1986; Howell and Higgins, 1990; West and Farr, 1990). Ultimately, once an idea secures backing, it must be effectively put into practice. Implementation can involve refining existing products or procedures or even creating entirely new ones. Employees need to invest significant effort and adopt a results-driven mindset to transform ideas into reality. Application behavior refers to the actions individuals must take to develop a chosen idea into a practical proposal ready for implementation. It often entails integrating innovations as standard components of work processes (Kleysen and Street, 2001) and includes activities such as creating new products or work processes, testing them, and making necessary modifications (Kanter, 1988; King and Anderson, 2002). Fig. 1 depicts a proposed model.

2.2. Relationship between employee engagement and IWB

Kahn (1990) introduced the engagement theory in his paper titled "Psychological Conditions of Personal Engagement and Disengagement at Work," published in the Academy of Management Journal. This theory proposes that employee engagement is rooted in an individual's psychological state regarding the meaningfulness, safety, and availability of their job. These factors serve as essential indicators of employee engagement.

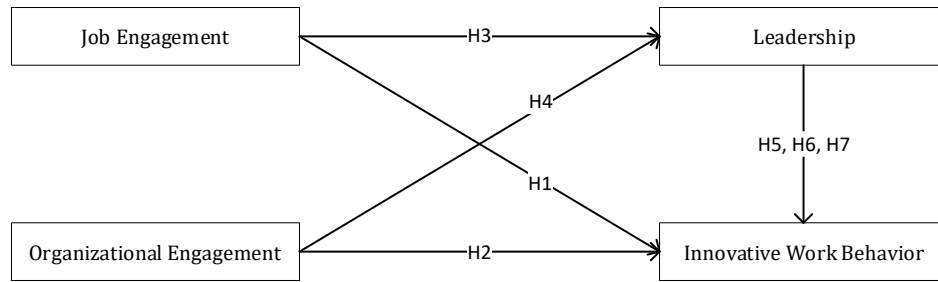


Fig. 1: Research model

Subsequently, various scholars, such as [Van de Ven \(1986\)](#), [Howell and Higgins \(1990\)](#), [West and Farr \(1990\)](#), [Kanter \(1988\)](#), [Howell and Higgins \(1990\)](#), and [King and Anderson \(2002\)](#), have expanded and refined the engagement theory. They define employee engagement as the manifestation of behavior and emotions related to work conditions, emphasizing it as an expression rather than a rigid adherence to roles or responsibilities. This includes displaying ownership of one's work and a strong desire to achieve set goals. Meanwhile, [Caniëls and Veld \(2019\)](#) have proposed a significant statistical relationship between IWB and high work performance. On the other hand, [Bysted \(2013\)](#), [Bos-Nehles et al. \(2017\)](#), [Stoffers et al. \(2014\)](#), [Shanker et al. \(2017\)](#), and [Veenendaal and Bondarouk \(2015\)](#) underscored the importance of considering formal development contexts. They have found that individual intuition plays a pivotal role in creating and developing a strategic perspective that can be transferred to group and organizational work concepts. In the realm of contemporary organizational psychology and human resource management, the concept of employee engagement has emerged as a critical factor that influences various aspects of workplace performance and productivity. Employee engagement positively influences both qualitative and quantitative dimensions of performance ([Kim and Koo, 2017](#)) and innovation. [Sundaray \(2011\)](#) suggested a positive relationship between employee engagement, work performance, creative thinking, and innovation, while [Amabile \(1988\)](#) proposed a creative thinking theory and explained the close connection between EE and innovation. Similarly, [Csikszentmihalyi and Csikszentmihalyi \(1992\)](#) asserted that creative thinking is shaped through the interaction of engagement, perception, and personal transformation of employees. [Vithayaporn and Ashton \(2019\)](#) identified that employee engagement could predict up to 75 percent of the variance in IWB. Employee engagement is a multifaceted construct that encompasses an employee's emotional, cognitive, and behavioral connection to their job role and organization as a whole.

Job engagement involves an emotional investment in one's work, fostering creativity and proactive behavior. Leaders play a crucial role in shaping the work environment, and highly engaged employees tend to exhibit proactive behaviors, offer constructive feedback, and enhance leadership effectiveness. Organizational engagement, closely

related to job engagement, extends beyond individual roles and contributes to IWB at the organizational level. Highly engaged organizations create an environment that encourages and supports innovation, fostering knowledge sharing and cross-functional collaboration. Effective leaders champion organizational values, instilling a shared vision and purpose within their teams and influencing the organization's overall innovative outcomes. Job engagement refers to an employee's profound commitment and enthusiasm towards their specific job tasks and responsibilities. It is characterized by an emotional investment in one's work, a sense of purpose, and a strong desire to excel in one's role ([Saks et al., 2022](#)). Employees who are deeply engaged with their job roles tend to exhibit higher levels of creativity, proactivity, and risk-taking behavior – all of which are essential components of IWB. However, leaders play a crucial role in shaping the work environment and influencing employee behavior. Several studies have explored how job engagement can positively influence leadership ([Lu and Guy, 2014](#); [Huang, 2022](#)). Employees who are highly engaged tend to exhibit proactive behaviors, offer constructive feedback, and display strong problem-solving skills. This not only fosters a positive work environment but also enhances leadership effectiveness.

Organizational engagement, a concept closely related to job engagement, represents the degree to which employees are emotionally and cognitively connected to their entire organization beyond just their specific job roles ([Saks et al., 2022](#)). It encompasses a sense of belonging, identification with the organization's mission and values, and a willingness to go above and beyond to contribute to the organization's success ([Kwon and Kim, 2020](#)). This broader form of engagement is increasingly recognized for its potential to foster IWB across the entire organization. Organizational engagement can be seen as the collective enthusiasm and commitment of employees toward the overarching goals and vision of the organization. This engagement extends beyond individual job tasks and can be a powerful driver of innovation at an organizational level. When employees feel a deep sense of belonging and alignment with the organization's strategic direction, they are more likely to collaborate, share knowledge, and proactively contribute to innovation initiatives. Research exploring the relationship between organizational engagement and IWB has yielded

valuable insights. Organizations with a highly engaged workforce are more likely to create an environment that encourages and supports innovation. Moreover, when employees are organically aligned with the organization's values and objectives, they are more likely to generate innovative ideas that are in harmony with the organization's long-term goals. Organizational engagement can act as a catalyst for knowledge sharing and cross-functional collaboration, which are fundamental to the success of innovation projects. Moreover, Effective leaders are often seen as champions of these values, fostering a sense of belonging and purpose among their teams. It suggests that organizational engagement can significantly impact leadership, as leaders who can instill a shared vision and values within their teams are more likely to be effective in guiding them toward innovative outcomes. Based on these concepts and research findings, the following hypothesis can be restated as follows:

H1: Job engagement influence on innovative work behavior

H2: Organizational engagement influence on innovative work behavior

H3: Job engagement influence on leadership

H4: Organizational engagement influence on leadership

2.3. Mediating role of leadership

Organizations thrive on innovation, which is driven by engaged employees and effective leadership. Leadership plays a pivotal role in shaping the innovative work behavior of employees in organizations (Afsar et al., 2014; Javed et al., 2019). The impact of leadership on innovation encompasses a wide array of leadership styles and behaviors that influence how employees approach and engage in innovative activities (Masood and Afsar, 2017). In organizations, innovation thrives through the interplay of engaged employees and effective leadership. Leadership significantly shapes the innovative work behavior of employees, influencing their approach and engagement in innovative activities. Various leadership styles and behaviors impact innovation, with effective leaders creating an environment that supports experimentation and risk-taking. Effective leadership creates an environment that encourages and supports innovation by instilling a shared vision, providing resources and guidance, and fostering a culture of experimentation and risk-taking (Mansoor et al., 2021; Erhan et al., 2022). Leaders who inspire, motivate, and empower their teams tend to see a greater willingness among employees to generate new ideas, challenge conventional thinking, and actively contribute to innovative initiatives. Furthermore, ethical leadership establishes a foundation of trust and integrity, which is fundamental for employees to feel safe in expressing their ideas and participating in innovation efforts

(Afsar and Umrani, 2020). As organizations seek to enhance their innovative capacity, understanding and leveraging the influence of leadership is crucial for sustaining competitiveness and achieving long-term growth (Ma and Jiang, 2018). Leadership can act as a mediator in the relationship between job and organizational engagement and innovative work behavior. When employees are highly engaged in their jobs or within the organization, effective leadership can channel that engagement toward innovative work behavior. Leaders serve as role models and create an environment where employees feel empowered to share ideas and take calculated risks. Consequently, leadership mediates the link between engagement and innovative work behavior, potentially amplifying its effects. The presented arguments lead to the formulation of the following hypotheses.

H5: Leadership influence on innovative work behavior

H6: Leadership mediates the relationship between job engagement and innovative work behavior

H7: Leadership mediates the relationship between organizational engagement and innovative work behavior

3. Research methods

3.1. Data collection

Survey data were collected from employees in small businesses in Saudi Arabia using a questionnaire consisting of 31 items across four constructs, rated on a five-point Likert scale (5-strongly agree to 1-strongly disagree). This data collection took place between February and March 2023. To ensure better understanding, the questionnaire items were translated into Arabic, the participants' native language, following a process of forward and backward translations for consistency (Gielnik et al., 2014). Before the main study, a preliminary test was conducted with 30 employees to confirm reliability, resulting in some item simplifications and removals.

The author validated the questionnaire by referring to a previously published version. The online questionnaire was made available to the targeted sample using a convenience sampling technique, and a total of 1195 responses were successfully gathered. Table 1 demonstrates a relatively balanced gender distribution, with slightly more males (52.1%) than females (47.9%). Additionally, the majority of participants were above 25 years old (52.4%), held a Bachelor's degree (75.1%), and had 1-2 years of work experience (38.7%).

3.2. Study measures

The initial part of the survey delineated the study's objectives and provided instructions for

completing the questionnaire. In the subsequent section, participants were asked to provide personal information. The third section utilized a Likert scale that ranged from 1 to 5, with 1 representing "strongly disagree" and 5 indicating "strongly agree," to assess the items related to constructs.

Table 1: Demographic characteristics (n=1195)

	Frequency	Percent
Gender		
Male	622	52.1
Female	573	47.9
Age		
16-18 years	54	4.5
19-20 years	79	6.6
21-22 years	178	14.9
23-24 years	258	21.6
Above 25 years	626	52.4
Education		
1-6 grade	4	0.3
8-9 grade	9	0.8
9-12 grade	207	17.3
Bachelor	897	75.1
Master	61	5.1
Doctorate	17	1.4
Experience		
1-2 years	463	38.7
3-5 years	339	28.4
5-10 years	199	16.7
Above 10 years	194	16.2

To measure innovative work behavior, 10 items adapted from Janssen (2000) were employed, with slight adjustments to suit the research context. These scale items demonstrated robust internal consistency reliability ($\alpha = 0.773$). Leadership was

evaluated using nine items adapted from Rožman and Štrukelj (2021), and these leadership items exhibited even stronger Cronbach's alpha reliability ($\alpha = 0.915$). Job engagement was assessed using five items adapted from Saks (2006), which yielded a good reliability score ($\alpha = 0.776$). Organizational engagement was measured with six items adapted from Saks (2019), also yielding a good reliability score ($\alpha = 0.779$). Any items with loadings below 0.7 were removed from all the constructs. Detailed information about each construct and its associated items can be found in Table 2.

3.3. Data analysis techniques

In this research, we employed the partial least squares structural equation modeling (PLS-SEM) technique utilizing SmartPLS 4 for data analysis. PLS-SEM is widely recognized and utilized in the realms of management and information technology (IT) because of its well-established track record for yielding dependable outcomes (Avkiran and Ringle, 2018). PLS-SEM is a non-parametric method designed to capture the explained variance in latent dimensions that cannot be directly observed. In contrast to traditional structural equation modeling (SEM), PLS-SEM offers the advantage of analyzing both direct and indirect effects of latent variables on a larger scale, encompassing the assessment of robust and weak path coefficients within intricate models (Hoyle, 1999; Heuer and Liñán, 2013).

Table 2: Measurement model

Constructs and items	Loadings	Cronbach's alpha	Composite reliability	AVE			
Innovative work behavior							
IVB1: "Can you choose the methods to use to carry out your work?"	0.708	0.773	0.845	0.522			
IVB10: "Does your job allow you to organize your work by yourself?"	0.755						
IVB11: "Do you have full authority in determining the content of your work?"	0.700						
IVB8: "Do you have full authority in determining how much time you spend on particular tasks?"	0.700						
IVB9: "Can you decide how to go about getting your job done?"	0.764	0.776	0.776	0.538			
Job engagement							
JE1: "I really "throw" myself into my job"	0.743						
JE3: "This job is all-consuming; I am totally into it"	0.701						
JE5: "I am highly engaged in this job"	0.810	0.915	0.93	0.595			
Leadership							
LD1: "My employer is always ready to listen"	0.768						
LD2: "My employer encourages me to achieve successful result"	0.800						
LD3: "I feel that the employer values me as an employee"	0.817						
LD4: "Employer gives me feedback and reviews about my work"	0.705						
LD5: "Employer always informs me about his decisions about organization"	0.753						
LD6: "In case of conflict between employer and employees, we solve them together and for the common benefit"	0.776						
LD7: "Employer gives me all information about work process"	0.741						
LD8: "Employer gives emphasis on work motivation"	0.763						
LD9: "Employer takes care of employee satisfaction"	0.812	0.779	0.858	0.602			
Organizational engagement							
OE1: "Being a member of this organization is very captivating"	0.821						
OE2: "One of the most exciting things for me is getting involved with things happening in this organization"	0.712						
OE5: "Being a member of this organization is exhilarating for me"	0.815						
OE6: "I am highly engaged in this organization"	0.750						

AVE: Average variance extracted

SmartPLS-SEM is considered a suitable choice for investigating intricate research models since it provides an estimation framework that incorporates pertinent theories and empirical data. Consequently, the utilization of PLS-SEM in this study allows for the validation of theoretical concepts and simplifies the

exploration of relationships among variables (Henseler et al., 2009). Following the methodological approach proposed by Leguina (2015), we adopted a two-step strategy. The initial step involved scrutinizing the outer model to establish discriminant and convergent validity in accordance

with the proposed theoretical model. Subsequently, the inner model was evaluated to test the hypotheses.

4. Results

4.1. Measurement model

Table 2 presents the results of a measurement model of constructs within an organizational context. Four main constructs were examined: Innovative Work Behavior (IVB), Job Engagement (JE), Leadership (LD), and Organizational Engagement (OE). Factor loadings for all the constructs above 0.7 met the threshold. The Innovative Work Behavior construct, which assesses employees' capacity for innovative work behaviors, exhibited strong reliability and validity. Its Cronbach's alpha of 0.845 and composite reliability of 0.522 suggest high internal consistency, while the average variance extracted (AVE) of 0.773 demonstrates satisfactory convergent validity. Job Engagement, focusing on the extent to which employees are engaged in their work, also displayed robust internal consistency with a Cronbach's alpha of 0.776. However, the AVE of 0.538, while acceptable, indicates a slightly lower convergent

validity compared to the Innovative Work Behavior construct. The Leadership construct, evaluating employees' perceptions of leadership within the organization, demonstrated impressive reliability with a Cronbach's alpha of 0.930 and a high composite reliability of 0.595 and AVE 0.595 above the threshold. Lastly, the Organizational Engagement construct, which gauges employees' overall engagement with the organization, exhibited strong reliability and validity. With a Cronbach's alpha of 0.858, composite reliability of 0.602, and an AVE of 0.779, this construct indicates both high internal consistency and convergent validity.

Table 3 presents discriminant validity using the Fornell-Larcker Criterion. The provided correlation matrix demonstrates that each construct - Innovative Work Behavior, Job Engagement, Leadership, and Organizational Engagement - is distinct and unique. The square roots of the AVE for each construct are all higher than their respective correlations with other constructs, indicating that these variables do not overlap significantly in the study. This finding supports the idea that these constructs measure different aspects or dimensions within the research context, affirming the discriminant validity of the measurement model.

Table 3: Discriminant validity (Fornell-Larcker criterion)

	Innovative work behavior	Job engagement	Leadership	Organizational engagement
Innovative work behavior	0.722			
Job engagement	0.347	0.734		
Leadership	0.57	0.41	0.771	
Organizational engagement	0.473	0.551	0.653	0.776

4.2. Structural model

Table 4 and Fig. 2 presents the structural model analysis. Firstly, the analysis indicates a positive relationship between Job Engagement and Innovative Work Behavior, with a beta coefficient of 0.091. This means that for every one-unit increase in job engagement, we can expect an increase of 0.091 units in innovative work behavior. This relationship is statistically significant ($p = 0.002$), supporting Hypothesis 1. Similarly, Organizational Engagement is positively linked to Innovative Work Behavior, with a stronger relationship represented by a beta of 0.131. For each one-unit increase in organizational engagement, there is an anticipated increase of 0.131 units in innovative work behavior. This relationship is also statistically significant ($p = 0.001$), supporting Hypothesis 2. Additionally, Job Engagement exhibits a positive association with Leadership, supported by

a beta of 0.071. A one-unit increase in job engagement corresponds to a 0.071-unit increase in leadership. This relationship is statistically significant ($p = 0.021$), confirming Hypothesis 3. Remarkably, Organizational Engagement has a notably strong positive connection with Leadership, with a substantial beta of 0.614. This suggests that a one-unit increase in organizational engagement is associated with a remarkable 0.614-unit increase in leadership. This relationship is highly statistically significant ($p = 0.000$), strongly supporting Hypothesis 4. Lastly, leadership itself positively influences innovative work behavior, as indicated by a substantial beta of 0.447. For each one-unit increase in leadership, there is an expected increase of 0.447 units in innovative work behavior. This relationship is highly statistically significant ($p = 0.000$), reinforcing Hypothesis 5.

Table 4: Path coefficients

Paths	β	Standard deviation	T statistics	P values	Hypothesis results
Job engagement -> Innovative work behavior	0.091	0.029	3.163	0.002	H1 - supported
Organizational engagement -> Innovative work behavior	0.131	0.04	3.311	0.001	H2 - supported
Job engagement -> Leadership	0.071	0.031	2.315	0.021	H3 - supported
Organizational engagement -> Leadership	0.614	0.027	22.669	0.000	H4 - supported
Leadership -> Innovative work behavior	0.447	0.035	12.842	0.000	H5 - supported

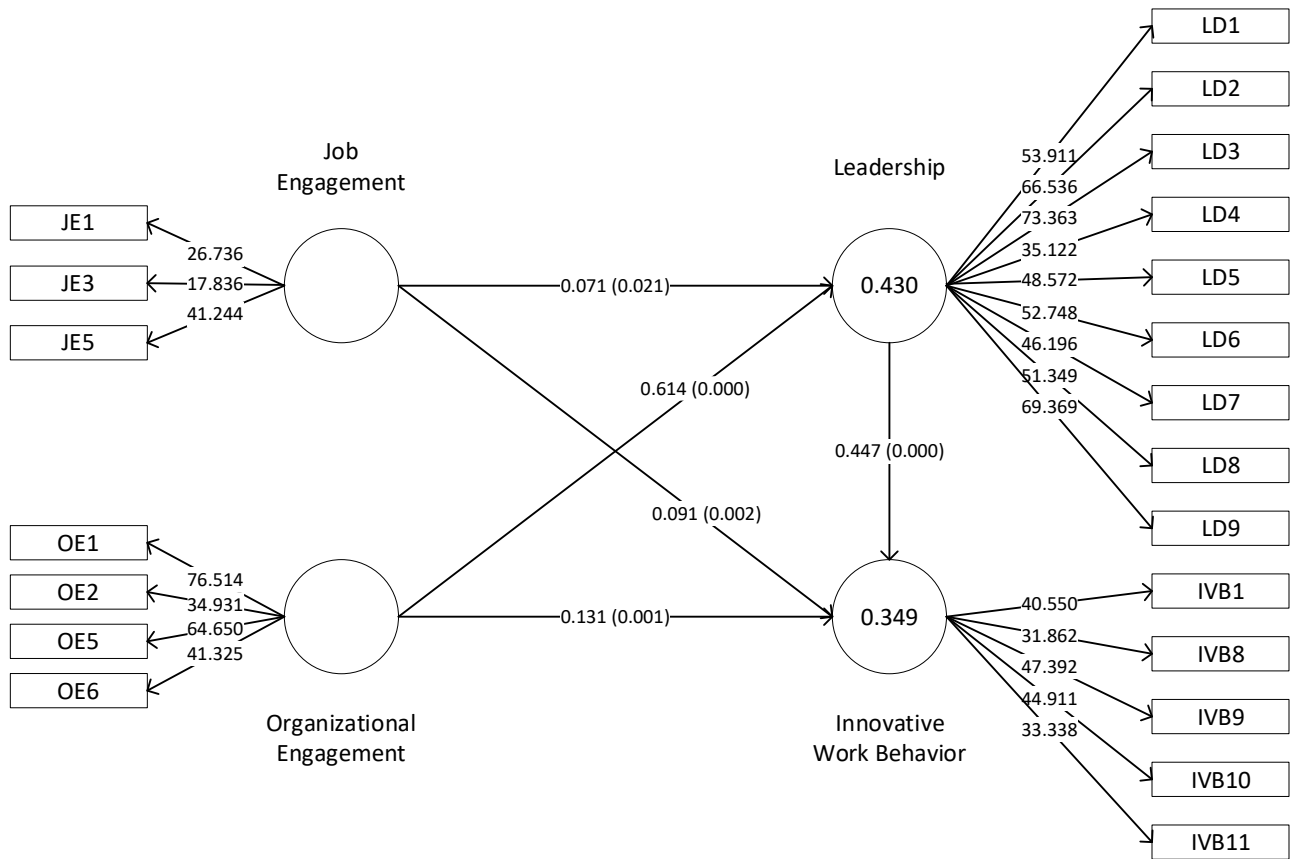


Fig. 2: Innovative work behavior model

Table 5 provides insights into specific indirect effects, focusing on mediation. It first examines the indirect effect of Job Engagement on Innovative Work Behavior through the mediating role of Leadership. The beta coefficient for this effect is 0.032, indicating that a one-unit increase in job engagement leads to an indirect increase of 0.032 units in innovative work behavior mediated by leadership. This effect is statistically significant ($p = 0.024$), supporting Hypothesis 6. This suggests that job engagement influences innovative work behavior not only directly but also indirectly by positively impacting leadership. Additionally, the table

investigates the indirect effect of organizational engagement on innovative work behavior, which is also mediated by leadership. Here, the beta coefficient is 0.274, showing that each one-unit increase in organizational engagement results in an indirect increase of 0.274 units in innovative work behavior, mediated through leadership. This effect is highly statistically significant ($p = 0.000$), strongly supporting Hypothesis 7. This highlights the significant influence of organizational engagement on innovative work behavior, especially through its positive impact on leadership.

Table 5: Specific indirect effect

Paths	β	Standard deviation	T statistics	P values	Hypothesis results
Job engagement -> Leadership -> Innovative work behavior	0.032	0.014	2.258	0.024	H6 – supported
Organizational engagement -> Leadership -> Innovative work behavior	0.274	0.025	11.145	0.000	H7 – supported

5. Discussion

The study findings underscore the intricate relationships among job engagement, organizational engagement, leadership, and innovative work behavior. These findings not only illuminate these connections but also stress the significance of nurturing both employee engagement and effective leadership practices within organizations to foster an environment conducive to innovation.

When employees are emotionally and intellectually committed to their work, they are more inclined to actively participate in creative and innovative endeavors (Kwon and Kim, 2020;

Rožman and Štrukelj, 2021). This highlights the pivotal role of cultivating employee engagement as a catalyst for promoting innovation within an organization. Consequently, organizations that prioritize the enhancement of both engagement and leadership qualities are more likely to experience a heightened level of innovation. In line with these findings, Slåtten and Mehmetoglu (2011) made a parallel observation, demonstrating that employees who exhibit strong work engagement are inherently motivated to explore novel approaches and techniques geared towards improving their job performance.

Moreover, this study underscores that employees who feel a deep connection and commitment to their organization are more predisposed to contributing to innovation initiatives. Engaged employees often exhibit qualities associated with effective leadership, thereby positively influencing team dynamics and the overall effectiveness of the organization. Additionally, highly engaged employees tend to manifest leadership attributes, which contribute to the cultivation of a positive leadership culture within the organization (Baafi et al., 2021). Effective leaders, as revealed in this study, play a pivotal role in inspiring and empowering their teams to actively engage in innovative activities. Consequently, leadership not only drives innovation but also acts as a conduit for amplifying the positive effects of engagement, further augmenting innovative outcomes (Afsar and Umrani, 2020; Le, 2020).

The study's findings have profound implications for the field of organizational management and innovation. These insights emphasize the pivotal role of nurturing both employee engagement and effective leadership practices within organizations. This study carries important theoretical implications by illuminating the intricate relationships between job engagement, organizational engagement, leadership, and innovative work behavior. It enriches understanding of these interconnected factors, contributing to a more comprehensive organizational theory. Moreover, the research integrates these concepts, providing a holistic perspective on organizational dynamics. This integration helps bridge gaps in the existing literature and offers a more nuanced understanding of how employee engagement and leadership practices jointly influence innovation. The study also challenges traditional views of employee engagement by highlighting its multifaceted nature, emphasizing both job-related commitment and a deep connection to the organization. This calls for a refined approach to measuring and managing engagement in organizations. Lastly, recognizing the multiplier effect of effective leadership on innovation, this research suggests a need to incorporate these findings into leadership theories and models, emphasizing leadership's critical role in driving innovation within organizations. From a practical standpoint, this research offers valuable insights for organizations seeking to cultivate innovation and gain a competitive edge. It underscores the importance of aligning human resource practices with these findings. Organizations should develop strategies that simultaneously boost employee engagement and nurture leadership qualities, recognizing their combined impact on innovation. Leadership development programs should be prioritized, emphasizing not only leadership skills but also the role of leaders in fostering an innovation-friendly culture and effectively engaging employees in the innovation process.

To enhance innovative work behavior through engagement and leadership, businesses can

strategically cultivate a culture of innovation. Leaders play a pivotal role by modeling innovative behavior, embracing risk, and showcasing openness to novel ideas. Recognition and reward systems that celebrate innovative contributions reinforce this culture. Simultaneously, fostering employee engagement involves transparent communication, actively involving employees in decision-making, and creating a work environment where individual contributions align with the company's overarching goals. Offering training programs that focus on creativity and innovation, coupled with leadership development initiatives, ensures that the workforce is equipped with the skills needed for innovative thinking.

Physical and virtual collaboration spaces further encourage idea-sharing, whether through open workspaces or online platforms. Supporting intrapreneurship involves allocating time and resources for employees to explore and develop their creative ideas. Diversity and inclusion are crucial, as diverse teams bring varied perspectives, enriching the pool of ideas. Continuous feedback mechanisms, including performance reviews and surveys, facilitate ongoing improvement while providing autonomy and flexibility, enables employees to explore and implement their ideas freely. Overall, a commitment to these strategies, coupled with regular assessments and adaptations, can create an environment conducive to sustained innovation.

6. Conclusion

In conclusion, despite its constraints, this study underscores the significance of employee engagement and leadership as pivotal factors influencing innovative work behaviors within Saudi Arabian small business organizations. Notably, it highlights that leadership acts as a mediator in the impact of job and organizational engagement on innovative work behaviors. These findings offer valuable insights to both practitioners and researchers, offering a deeper understanding of how to foster increased levels of innovative work behaviors by recognizing the interconnectedness of engagement and leadership. Lastly, integrating principles of employee engagement and effective leadership into change management practices can facilitate smoother transitions during periods of organizational change and innovation adoption.

Moving forward, future research avenues may delve into the specific mechanisms through which leadership acts as a mediator, exploring leadership styles and behaviors that have the most pronounced impact on innovative work behaviors. Additionally, investigating the cultural nuances that may influence the relationship between employee engagement, leadership, and innovation within the Saudi Arabian context would provide a more comprehensive understanding while conducting in-depth interviews with industry experts.

Furthermore, there is potential for research to explore the long-term effects of integrating principles of employee engagement and effective leadership into change management practices. Understanding how these principles contribute to organizational resilience and adaptability over time could be crucial for businesses navigating the ever-evolving landscape of innovation and change. By extending the scope to encompass longitudinal studies and diverse organizational contexts, researchers can contribute to a more robust body of knowledge, offering practical insights that can inform strategies for sustainable innovation in small business settings.

Compliance with ethical standards

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

- Afsar B and Umrani WA (2020). Transformational leadership and innovative work behavior: The role of motivation to learn, task complexity and innovation climate. *European Journal of Innovation Management*, 23(3): 402-428. <https://doi.org/10.1108/EJIM-12-2018-0257>
- Afsar B, Badir YF, and Saeed BB (2014). Transformational leadership and innovative work behavior. *Industrial Management and Data Systems*, 114(8): 1270-1300. <https://doi.org/10.1108/IMDS-05-2014-0152>
- Ahmad I, Gao Y, Su F, and Khan MK (2023). Linking ethical leadership to followers' innovative work behavior in Pakistan: The vital roles of psychological safety and proactive personality. *European Journal of Innovation Management*, 26(3): 755-772. <https://doi.org/10.1108/EJIM-11-2020-0464>
- AlEsa HS and Durugbo CM (2022). Systematic review of innovative work behavior concepts and contributions. *Management Review Quarterly*, 72(4): 1171-1208. <https://doi.org/10.1007/s11301-021-00224-x>
- Alshahrani I (2023). Integration of innovative work behavior through transformational leadership in the Saudi healthcare sector: A systematic review. *Arab Gulf Journal of Scientific Research*. <https://doi.org/10.1108/AGJSR-02-2023-0078>
- Alsughayir A (2017). The effect of leader-member exchange on innovative work behavior in the Saudi hospitality. *International Journal of Business and Management*, 12(6): 189-195. <https://doi.org/10.5539/ijbm.v12n6p189>
- Alt D, Kapshuk Y, and Dekel H (2023). Promoting perceived creativity and innovative behavior: Benefits of future problem-solving programs for higher education students. *Thinking Skills and Creativity*, 47: 101201. <https://doi.org/10.1016/j.tsc.2022.101201>
- Amabile TM (1988). A model of creativity and innovation in organizations. *Research in Organizational Behavior*, 10: 123-167.
- Anderson N, Potočnik K, and Zhou J (2014). Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of Management*, 40(5): 1297-1333. <https://doi.org/10.1177/0149206314527128>
- Avkiran NK and Ringle CM (2018). Partial least squares structural equation modeling: Recent advances in banking and finance. Volume 239, Springer, Cham, Switzerland. <https://doi.org/10.1007/978-3-319-71691-6>
- Ayoub AEAH, Almahamid SM, and Al Salah LF (2023). Innovative work behavior scale: Development and validation of psychometric properties in higher education in the GCC countries. *European Journal of Innovation Management*, 26(1): 119-133. <https://doi.org/10.1108/EJIM-04-2021-0176>
- Baafi F, Ansong A, Dogbey KE, and Owusu NO (2021). Leadership and innovative work behaviour within Ghanaian metropolitan assemblies: Mediating role of resource supply. *International Journal of Public Sector Management*, 34(7): 765-782. <https://doi.org/10.1108/IJPSM-01-2021-0005>
- Basadur M (2004). Leading others to think innovatively together: Creative leadership. *Leadership Quarterly*, 15(1): 103-121. <https://doi.org/10.1016/j.leaqua.2003.12.007>
- Bos-Nehles A, Bondarouk T, and Nijenhuis K (2017). Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services. *The International Journal of Human Resource Management*, 28(2): 379-398. <https://doi.org/10.1080/09585192.2016.1244894>
- Bysted R (2013). Innovative employee behaviour: The moderating effects of mental involvement and job satisfaction on contextual variables. *European Journal of Innovation Management*, 16(3): 268-284. <https://doi.org/10.1108/EJIM-09-2011-0069>
- Caniëls MC and Veld M (2019). Employee ambidexterity, high performance work systems and innovative work behaviour: How much balance do we need? *The International Journal of Human Resource Management*, 30(4): 565-585. <https://doi.org/10.1080/09585192.2016.1216881>
- Csikszentmihalyi M and Csikszentmihalyi IS (1992). *Optimal experience: Psychological studies of flow in consciousness*. Cambridge University Press, Cambridge, UK.
- Demircioglu MA, Hameduddin T, and Knox C (2023). Innovative work behaviors and networking across government. *International Review of Administrative Sciences*, 89(1): 145-164. <https://doi.org/10.1177/00208523211017654>
- Erhan T, Uzunbacak HH, and Aydin E (2022). From conventional to digital leadership: Exploring digitalization of leadership and innovative work behavior. *Management Research Review*, 45(11): 1524-1543. <https://doi.org/10.1108/MRR-05-2021-0338>
- Farr J and Ford C (1990). Individual innovation. In: West M and Farr J (Eds.), *Innovation and creativity at work: Psychological and organizational strategies*: 63-80. Wiley, Chichester, UK.
- Gielnik MM, Barabas S, Frese M, Namatovu-Dawa R, Scholz FA, Metzger JR, and Walter T (2014). A temporal analysis of how entrepreneurial goal intentions, positive fantasies, and action planning affect starting a new venture and when the effects wear off. *Journal of Business Venturing*, 29(6): 755-772. <https://doi.org/10.1016/j.jbusvent.2013.09.002>
- Henseler J, Ringle CM, and Sinkovics, RR (2009). The use of partial least squares path modeling in international marketing. In: Cavusgil T, Sinkovics RR, and Ghauri PN (Eds.), *New challenges to international marketing*: 277-319. Volume 20, Emerald Group Publishing Limited, Bingley, USA. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Heuer A and Liñán F (2013). Testing alternative measures of subjective norms in entrepreneurial intention models. *International Journal of Entrepreneurship and Small Business*, 19(1): 35-50. <https://doi.org/10.1504/IJESB.2013.054310>
- Howell JM and Higgins CA (1990). Champions of change: Identifying, understanding, and supporting champions of technological innovations. *Organizational Dynamics*, 19(1): 40-55. [https://doi.org/10.1016/0090-2616\(90\)90047-S](https://doi.org/10.1016/0090-2616(90)90047-S)
- Hoyle RH (1999). *Statistical strategies for small sample research*. SAGE, Thousand Oaks, USA.

- Huang Y (2022). Spiritual leadership and job engagement: The mediating role of emotion regulation. *Frontiers in Psychology*, 13: 844991. <https://doi.org/10.3389/fpsyg.2022.844991> **PMid:35496230 PMCid:PMC9046577**
- Hussain T and Zhang Y (2023). The influences of cross-cultural adjustment and motivation on self-initiated expatriates' innovative work behavior. *Personnel Review*, 52(4): 1255-1272. <https://doi.org/10.1108/PR-05-2021-0320>
- 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>
- Javed B, Naqvi SMMR, Khan AK, Arjoon S, and Tayyeb HH (2019). Impact of inclusive leadership on innovative work behavior: The role of psychological safety. *Journal of Management and Organization*, 25(1): 117-136. <https://doi.org/10.1017/jmo.2017.3>
- Kahn WA (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4): 692-724. <https://doi.org/10.5465/256287> **PMid:23843868**
- Kanter RM (1988). When a thousand flowers bloom: Structural, collective and social conditions for innovation in organization. *Research in Organizational Behavior*, 10: 169-211.
- Karimi S, Ahmadi Malek F, Yaghoobi Farani A, and Liobikiene G (2023). The role of transformational leadership in developing innovative work behaviors: The mediating role of employees' psychological capital. *Sustainability*, 15(2): 1267. <https://doi.org/10.3390/su15021267>
- Khalili A (2016). Linking transformational leadership, creativity, innovation, and innovation-supportive climate. *Management Decision*, 54(9): 2277-2293. <https://doi.org/10.1108/MD-03-2016-0196>
- Kim MS and Koo DW (2017). Linking LMX, engagement, innovative behavior, and job performance in hotel employees. *International Journal of Contemporary Hospitality Management*, 29(12): 3044-3062. <https://doi.org/10.1108/IJCHM-06-2016-0319>
- King N and Anderson N (2002). *Managing innovation and change: A critical guide for organizations*. Thomson, London, UK.
- Kleysen RF and Street CT (2001). Toward a multi-dimensional measure of individual innovative behavior. *Journal of Intellectual Capital*, 2(3): 284-296. <https://doi.org/10.1108/EUM000000005660>
- Koednok S and Sungsanit M (2018). The influence of multilevel factors of human resource practices on innovative work behavior. *The Journal of Behavioral Science*, 13(1): 37-55.
- Krueger Jr NF (2000). The cognitive infrastructure of opportunity emergence. *Entrepreneurship Theory and Practice*, 24(3): 5-24. <https://doi.org/10.1177/104225870002400301>
- Kwon K and Kim T (2020). An integrative literature review of employee engagement and innovative behavior: Revisiting the JD-R model. *Human Resource Management Review*, 30(2): 100704. <https://doi.org/10.1016/j.hrmr.2019.100704>
- Le PB (2020). How transformational leadership facilitates radical and incremental innovation: The mediating role of individual psychological capital. *Asia-Pacific Journal of Business Administration*, 12(3/4): 205-222. <https://doi.org/10.1108/APJBA-04-2020-0129>
- Leguina A (2015). A primer on partial least squares structural equation modeling (PLS-SEM). *International Journal of Research and Method in Education*, 38(2): 220-221. <https://doi.org/10.1080/1743727X.2015.1005806>
- Leong CT and Rasli A (2014). The relationship between innovative work behavior on work role performance: An empirical study. *Procedia-Social and Behavioral Sciences*, 129: 592-600. <https://doi.org/10.1016/j.sbspro.2014.03.717>
- Lu X and Guy ME (2014). How emotional labor and ethical leadership affect job engagement for Chinese public servants. *Public Personnel Management*, 43(1): 3-24. <https://doi.org/10.1177/0091026013512278>
- Ma X and Jiang W (2018). Transformational leadership, transactional leadership, and employee creativity in entrepreneurial firms. *The Journal of Applied Behavioral Science*, 54(3): 302-324. <https://doi.org/10.1177/0021886318764346>
- Mansoor A, Farrukh M, Wu Y, and Abdul Wahab S (2021). Does inclusive leadership incite innovative work behavior? *Human Systems Management*, 40(1): 93-102. <https://doi.org/10.3233/HSM-200972>
- Masood M and Afsar B (2017). Transformational leadership and innovative work behavior among nursing staff. *Nursing Inquiry*, 24(4): e12188. <https://doi.org/10.1111/nin.12188> **PMid:28150910**
- Mumford MD (2003). Where have we been, where are we going? Taking stock in creativity research. *Creativity Research Journal*, 15(2and3): 107-120. <https://doi.org/10.1080/10400419.2003.9651403>
- Oldham GR and Cummings A (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal*, 39(3): 607-634. <https://doi.org/10.5465/256657>
- Park S and Jo SJ (2018). The impact of proactivity, leader-member exchange, and climate for innovation on innovative behavior in the Korean government sector. *Leadership and Organization Development Journal*, 39(1): 130-149. <https://doi.org/10.1108/LODJ-09-2016-0216>
- Rowley J, Baregheh A, and Sambrook S (2011). Towards an innovation-type mapping tool. *Management Decision*, 49(1): 73-86. <https://doi.org/10.1108/0025174111094446>
- Rožman M and Štrukelj T (2021). Organisational climate components and their impact on work engagement of employees in medium-sized organisations. *Economic Research-Ekonomska Istraživanja*, 34(1): 775-806. <https://doi.org/10.1080/1331677X.2020.1804967>
- Saks AM (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7): 600-619. <https://doi.org/10.1108/02683940610690169>
- Saks AM (2019). Antecedents and consequences of employee engagement revisited. *Journal of Organizational Effectiveness: People and Performance*, 6(1): 19-38. <https://doi.org/10.1108/JOEPP-06-2018-0034>
- Saks AM, Gruman JA, and Zhang Q (2022). Organization engagement: A review and comparison to job engagement. *Journal of Organizational Effectiveness: People and Performance*, 9(1): 20-49. <https://doi.org/10.1108/JOEPP-12-2020-0253>
- Sattabut T (2012). A study of competency needs of human resource staff for industry sector. *Veridian E-Journal*, 5(2): 426-448.
- Scott SG and RA Bruce (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 38: 1442-1465.
- Shalley CE, Zhou J, and Oldham GR (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, 30(6): 933-958. <https://doi.org/10.1016/j.jm.2004.06.007>
- Shane SA (1994). Are champions different from non-champions? *Journal of Business Venturing*, 9(5): 397-421. [https://doi.org/10.1016/0883-9026\(94\)90014-0](https://doi.org/10.1016/0883-9026(94)90014-0)
- Shane SA (2003). *A general theory of entrepreneurship: The individual-opportunity nexus*. Edward Elgar Publishing, Aldershot, UK. <https://doi.org/10.4337/9781781007990>

- Shanker R, Bhanugopan R, Van der Heijden BI, and Farrell M (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of Vocational Behavior*, 100: 67-77. <https://doi.org/10.1016/j.jvb.2017.02.004>
- Slåtten T and Mehmetoglu M (2011). Antecedents and effects of engaged frontline employees: A study from the hospitality industry. *Managing Service Quality: An International Journal*, 21(1): 88-107. <https://doi.org/10.1108/09604521111100261>
- Stoffers JM, Van der Heijden BI, and Notelaers GL (2014). Towards a moderated mediation model of innovative work behaviour enhancement. *Journal of Organizational Change Management*, 27(4): 642-659. <https://doi.org/10.1108/JOCM-05-2014-0105>
- Sundaray BK (2011). Employee engagement: A driver of organizational effectiveness. *European Journal of Business and Management*, 3(8): 53-59.
- Tidd J and Bessant JR (2018). *Managing innovation: Integrating technological, market and organizational change*. John Wiley and Sons, Chichester, UK.
- Van de Ven AH (1986). Central problems in the management of innovation. *Management Science*, 32(5): 590-607. <https://doi.org/10.1287/mnsc.32.5.590>
- Veenendaal A and Bondarouk T (2015). Perceptions of HRM and their effect on dimensions of innovative work behaviour: Evidence from a manufacturing firm. *Management Revue*, 26(2): 138-160. <https://doi.org/10.5771/0935-9915-2015-2-138>
- Vithayaporn S and Ashton AS (2019). Employee engagement and innovative work behavior: A case study of Thai Airways International. *ABAC ODI Journal Vision Action Outcome*, 6(2): 45-62.
- West MA (2002). Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups. *Applied Psychology: An International Review*, 51(3): 355-387. <https://doi.org/10.1111/1464-0597.00951>
- West MA and Farr JL (1990). *Innovation and creativity at work: Psychological and organizational strategies*. Wiley, Chichester, UK.
- Yuan F and Woodman RW (2010). Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of Management Journal*, 53(2): 323-342. <https://doi.org/10.5465/amj.2010.49388995>