

## EMPOWERING INNOVATION IN SAUDI WORKPLACES: AN EMPIRICAL ASSESSMENT OF LEARNING AGILITY, ENGAGEMENT, AND ORGANIZATIONAL DRIVERS

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### Abstract

This study investigates the significance of learning agility (LA) and employee engagement (EE) in enhancing individual innovative behaviour (IB) within Saudi organizations undergoing transformation under Vision 2030. It also examines whether organizational learning culture (OLC) and supportive work environment (SWE) moderate these relationships. The researchers got data through 206 employees across the various spheres of work in Saudi Arabia. They applied SEM to check both direct and indirect relationships and examine how OLC and SWE exerted their influence as the moderators. The findings reveal that learning agility significantly influences both EE and IB. Moreover, EE partially mediates the relationship between LA and innovation. However, no significant moderating effects were found for either organizational learning culture or supportive work environment. These results suggest that individual-level factors such as learning agility may play a more central role than contextual factors in driving innovative behaviour. This paper provides useful suggestions to Saudi leaders and policy maker interested in creating cultures of valuing innovation. It emphasizes the importance of investing in employee learning agility and engagement strategies that assist in achieving national innovation objectives. By integrating theories such as SET, OLT, and OST, this research contributes to understanding how internal and contextual drivers interact to influence innovation in emerging economies. The findings offer timely insights for future innovation policy implementation, especially within the scope of national transformation agendas such as Saudi Arabia's Vision 2030.

**Keywords:** Learning agility, Employee Engagement, Innovative behaviour, Organizational learning culture, Supportive work environment, Saudi Arabia, Vision 2030

## 1. Introduction

### 1.1. Background of Study

The world is evolving at a rapid pace, technologically, through globalization, and in terms of innovation. Industries are facing significant challenges driven by these forces and are compelled to adapt in order to remain competitive or at least keep pace. Embracing such changes is crucial not only for survival but also for growth and prosperity in today's dynamic market environment (Yi & Kim, 2025).

As global competition intensifies, organizations must relentlessly pursue innovative strategies to preserve and enhance their competitive advantage (Alessa & Durugbo, 2022). Employees are the primary drivers of innovation within organizations, making individual innovative behavior a critical component of successful organizational innovation. Existing literature has consistently emphasized that enhancing employee behavior significantly contributes to maintaining a competitive advantage (Jo & Hong, 2022). As Tripathi and Kalia (2024) expand, innovation involves both the generation and application of new ideas, a process that can be substantially enhanced by employees who demonstrate high levels of learning agility. In highly competitive and constantly evolving work environments, developing such capabilities among employees is essential for ensuring organizational growth and long-term sustainability.

Current research indicates that agility in an organization is one of the major factors that can bring about high performance and institutional health. According to McKinsey (2022), 70 percent

of agile organizations are in the top quartile of organizational health, a factor that is associated with adapting, ability to innovate, and EE. This serves to illustrate the revolutionary nature of agile practices that not only save operations but also help to create high performing and resilient cultures.

In addition, McKinsey (2023) argues that resilient organizations expect interference, act fast, and learn faster following agile principles. One of the drivers of such resiliency is allowing employees to think for themselves and take independent decisions, which makes them more owner and flexible in their teams. To this, McKinsey (2021) also states that agile organizations achieve a 30 percent increase in employee satisfaction and operational performance and are 5 to 10 times faster to decision making compared to their less agile counterparts. These insights collectively highlight the strategic importance of nurturing a learning-oriented culture and a supportive work environment to boost engagement and drive innovative behaviour particularly in dynamic and rapidly transforming environments like those emerging in the Saudi context.

Like many other nations, Saudi Arabia has implemented various strategies and initiatives to advance the 17 Sustainable Development Goals SDGs (Alotaibi, 2022). As the country continues to advance its national transformation agenda, aiming to build an innovation-driven, knowledge-based economy, organizations face a key challenge cultivating a workforce that is adaptable, engaged, and able to drive sustained innovation in a rapidly evolving landscape.

Recent national data highlights Saudi Arabia's growing commitment to innovation across organizational sectors. In 2023, R&D spending rose to SAR 22.61 billion; a 17.4% increase over the previous year with 77% of funding from government and private institutions (General Authority for Statistics, 2023). This investment supports the development of agile, innovative-driven workspaces where adaptability and EE are central to strategic success. Complementing this, Saudi Arabia ranked 47th out of 133 countries in the Global Innovation Index 2024 by WIPO, pacing 36th in innovation inputs and 1st globally in both ICT access and market capitalization relative to GDP. These indicators reflect the Kingdom's progress toward a digitally enabled, knowledge-based economy.

Given that managers are increasingly expected to support and empower employees in developing organizational capabilities that enhance firm agility, and that such outcomes require the deliberate cultivation of a learning-oriented culture (Cetindamar et al., 2021) it becomes essential to examine the conditions under which these capabilities are most effectively developed.

While extensive research has surveyed the experiences of IB in the workplace particularly the relationships among, EE, and IB (Kwon & Kim, 2020; Jo & Hong, 2022), existing findings remain fragmented and do not fully capture the role of organizational context. Furthermore, limited knowledge exists on how Saudi organizations, amid rapid transformation under Vision 2030, are utilizing OLC and SWE to strengthen and promote IB. It also remains unclear whether strong learning cultures enhance engagement and innovation, or whether hierarchical structures, risk aversion, and weak organizational support inhibit these outcomes (AlSaied&Alkhoraif, 2024).

Given the unique regulatory, cultural, and economic shifts within Saudi Arabia, there is a pressing need for context-specific research that explores how innovation unfolds within organizational settings.

RQ1: What is the effect of LA on EE and IB in Saudi organizations?

RQ2: Does EE mediate the relationship between LA and IB?

RQ3: To what extent do OLC and SWE moderate the relationships between LA, EE, and IB?

Theoretically, it proposes an integrated conceptual framework that clarifies how learning agility, engagement, and organizational context interact to shape innovative behavior. Practically, the findings are intended to guide Saudi organizational leaders and policymakers in designing agile, innovation-supportive environments that enable employees to actively contribute to sustainable growth and transformational goals aligned with Vision 2030.

## **2. Theoretical Background and Hypothesis Development:**

### **2.1 Theoretical Underpinning**

#### ***2.1.1 Social Exchange Theory – SET***

SET is well-known *theory* of explaining the behavior of people at work. Since the 1920s, scholars have used it. SET is significant in social psychology, anthropology and management. It was Developed by Homans (1961), Blau (1964). After viewing the social inter-action as a transformation during which people supply and drain resources or services, expecting the reward to be granted, either now or in the future. The negotiations introduce the sense of indebtedness, imposing an urge in people to give back any assistance or efforts they make. It is based on the principle of interdependence, where each person's actions affect and are affected by the other, strengthening mutual expectations over time. This cycle of reciprocity fosters trust and ongoing collaboration, which is essential in both personal relationships and professional environments, where teamwork and mutual support drive success (Cropanzano & Mitchell, 2005).

From the perspective of the workplace and management, SET proposes that when employees received positive actions, they are motivated to reciprocate with higher performance and positive behaviors. This, in turn, strengthens workplace relationships and enhances organizational cohesion, aligning with the principles of SET. SET has been widely applied in research to explain organizational learning and behavior. Lin and Huang (2021) suggest that job satisfaction plays a key role in connecting various influencing factors with workplace behaviors.

In the lens of this study, regarding to gaining knowledge through enhancing task motivation through EE, the work environment is vital for promotion of originality and helping IB (Jo & Hong, 2022).

#### ***2.1.2 Organizational Learning Theory – OLT***

OLT originated from various disciplines, social psychology, management, and education. Foundational contributors to the theory include Chris Argyris and Donald Schön (1978), as well as Peter Senge (1990). Researchers agree that organizations learn through the individual learning of their employees (Fauske & Raybould, 2005). OLT explains how learning occurs within organizations by considering several factors: the social and organizational context of knowledge acquisition, individual influences on learning, broader environmental factors affecting knowledge application, and how the nature of knowledge or innovation shapes the learning process over time (Berta et al., 2015).

The importance of OLT is evident in fostering learning agility, which enables employees to quickly adapt to changes, and EE, as a culture of learning boosts motivation and job satisfaction. This is because organizational learning theory links motives of learning within organizations to their ability to implement change and foster innovation. OLT plays a crucial role in developing employees' capabilities, enabling them to navigate diverse situations, consider multiple perspectives, exhibit determination and logical reasoning in adapting to change, enhance their

skills, and actively share knowledge (Tripathi, 2024).

Additionally, OLT enhances innovative behavior, encouraging employees to develop creative solutions, employees are more adaptable to new changes, reducing resistance to innovation. Consequently, organizations can seamlessly integrate changes without negatively impacting their performance, as employees are well-equipped to manage transitions efficiently and effectively. Therefore, this perspective consistent with the theory of organizational learning regarding how knowledge management and sharing processes influence an organization's adaptability and responsiveness to changing externalities (Tripathi, 2024; Gardner, 2022).

### ***2.1.3. Organizational Support Theory – OST***

OST first introduced by Eisenberger et al. in 1986, offers a foundational framework for understanding how employees form perceptions regarding the extent to which their organization values their contributions and cares about their well-being. At the core of this theory lies the concept of POS, which reflects the degree to which employees believe their socio-emotional needs are acknowledged and supported by the organization, thereby establishing a psychological contract between the individual and the employer (Rhoades & Eisenberger, 2002). OST proposes that the more workers perceive strong organizational support, the more positive their behaviors and attitudes will be in the form of higher rates of commitment, engagement, and occurrence of innovative initiatives (Eisenberger et al., 2001; Kurtessis et al., 2017). The norm of reciprocity explains such a reaction since employees consider that they have a moral obligation to reciprocate to the organization in kind by engaging in more discretionary activities like inventive work. OST further says that this sense of obligation is enhanced by fair treatment, recognition, and supervisory support and access to development resources, which encourages the employees to go beyond the letter of the role expectations. In this study, OST is a theoretical frame through which the researcher demonstrates nations in which the engaging workplace (SWE) develops (EE) and innovative behavior (IB). Employees tend to put their minds, hearts, and bodies into work when they notice the delivery of emotional and instrumental support at workplace, which on the other hand causes them to become innovative.

OST is connected to the SET which suggests that relations in the work place are developed as a result of reciprocated exchanges between the employees and the organization (Cropanzano & Mitchell, 2005). The combination of these theories gives us a complete picture of the mechanisms of motivation through which the context of an organization is associated with positive results to the employees, particularly engagement.

## **2.2 Hypothesis Development**

### ***2.2.1. Learning Agility (LA) and Innovative Behavior (IB)***

Agile learning implies both the possibility and inclination to apply the learning to novel, unknown contexts and adapt promptly to the shifting conditions (Tripathi & Sankaran, 2021). Lombardo and Eichinger (2000) outlined as, in their words, to be an ability and desire to acquire new (p. 323). A high person never stops searching new opportunities and is ready to obtain feedback the others may provide and embracing innovation without fearing challenges. They tend to experiment more, regularly engage in self-reflection, and draw actionable insights (De Meuse et al., 2010; Eichinger et al., 2010). Additionally, organizations with a workforce that exhibits high consistently outdo their competitors in areas like profitability, market share, sales growth, and customer satisfaction (Gravett & Caldwell, 2016). In addition, individuals with high learning

agility embrace innovation with confidence, readily take on new challenges, exhibit strong experimental tendencies, and achieve results through effective communication with others (DeRue et al., 2012). Employee innovative behavior has been defined through various perspectives; however, most research defined it as an innovation process. In this view, innovative behavior is typically seen as a sequence of stages (Scott and Bruce, 1994; Kleysen and Street, 2001).

In the initial stage, individuals detect issues and generate novel ideas and solutions. Next, employees work to secure sponsorship and build coalitions to support these ideas. The process concludes when sufficient backing is obtained to put the innovative ideas into practice (Scott and Bruce, 1994). Moreover, innovative behavior implies that employees enhance their skills and capabilities through continuous innovation, which in turn increases both corporate and social value. This process also fulfills employees' intrinsic desires for self-improvement and self-value realization, thereby enhancing their workplace wellbeing. Consequently, innovative behavior not only adds value to the organization and society but also improves the employees' happiness (Wang et al., 2022). According to Franco & Landini (2022) Workforce agility plays a significant role in driving innovation within organizations by shaping employee behavior and motivation. the studies differentiate between two key components: time agility and task agility, with task agility having a stronger impact on process innovation. The influence of agility-related practices is particularly evident in dynamic environments, where adaptability is crucial. Additionally, workforce agility enhances employee commitment and motivation, fostering a culture of innovation. Organizational agility can be seen as a key mechanism for fostering innovation within a company (Atkinson et al., 2022) Previous study also indicated that learning agility impacts organizational innovation, as learning agile employees play a crucial role in fostering innovation within a company (Tripathi & Dhir., 2023).

H1: LA is positively related to IB.

### ***2.2.2. The Mediating Role of EE***

EE is a gratifying attitude towards work and its manifestation is effervescence, commitment, and modernism (Schaufeli et al., 2002, p. 74). According to Shuck et al.,(2017), EE refers to an active, work-related, positive psychological state and it is operationalized as the intensity and direction of cognitive, emotional, and behavioral energy (2017, p. 959). Such dynamic status appears in dialogue on problem solving and decisions, involvement and actions (Bailey et al.,2017), are indicated by going the extra mile. The combination of these behaviors results in a highly committed workforce with dedication to the achievements of the organization as well as growth and prosperity of the entire company (Ghani et al.,2023). It has been studied that employee job satisfaction and overall performance in the organization are underpinned by high EE (Al Zeer et al., 2023; Boccoli et al., 2023), and job security is one of the most important factors that increase employee job engagement and improve performance (Prentice et al., 2023).

Saks (2022) points out that effective human resource management (HRM) practices influence EE in a positive way. An organizational climate that supports employees is facilitated by a system of caring HRM practices- training, flexi work, work-life balance, participation in the decision making, career development, as well as wellness programs. To this end, employees are more committed and caring of the organization and that portrays higher engagement levels of the employees. According to Rasool et al, (2021) results indicate that the toxic work environment



minimizes the level of commitment and engagement of the employee not just in the workplace but also in the organization itself, whereas organizational support and care about the employee significantly make the difference and raise the commitment and engagement levels. Additionally, studies have proved that learning agility plays an important role in the retention of employees (Tripathi & Sankaran, 2021). Additionally, EE promotes cooperative interpersonal strategies and minimizes workplace conflicts.

Meanwhile, EM is influenced by employees' learning agility. According to Jo & Hong, (2022), learning agility plays a crucial role in enhancing EE. A learning environment is recognized as advantageous in shaping an organization's competitive strategy and inspiring employees to work toward achieving their goals (Islam et al., 2016). In this context, EE enhances learning and development opportunities while also improving employee retention, which benefits the organization. Therefore, EE appears to be a result of the learning environment established within the organization. (Joo & Lim, 2009). These activities support employees in goal achievement and individual development (Eldor & Harpaz, 2016). In this context, a learning environment contributes to engagement by offering external motivation, such as achieving organizational objectives, and internal motivation, like self-development and self-growth (Halbesleben, 2010; Islam & Tariq, 2018). Furthermore, learning experiences enhance positive self-evaluations and efficacy (Salanova et al., 2010). Efficacy is associated with deep absorption in tasks, as well as increased energy and effort toward task completion, ultimately leading to engagement (Sweetman & Luthans, 2010). Further, findings from multiple empirical studies have demonstrated that learning agility has a significant and positive impact on EE (Saputra, 2018; Ogueyungbo et al., 2020; Kwon & Lee, 2020). Given the above, the following hypothesis was developed:

H2: (LA) is positively related to (EE).

### ***2.2.3 Employee Engagement (EE) and Innovation Behavior (IB)***

Engagement of employees is a process in which members of the organization are tied to their work role (Kahn, 1990). People make use of and share physically, cognitively, and emotionally in the in-role and extra-role performances. The definition highlights an individual interaction where the individual felt connected both physically, emotionally and mentally with the job. In personal engagement, three psychological supports include meaningfulness, psychological safety, and availability (Boccoli et al., 2023). According to the study, the confirmation is that EE is linked positively with these behaviors (Ng et al., 2021; Rahman & Karim, 2022). Moreover, Jiang and Shen (2023) determined that a positive correlation has to exist between the contextual performance and EE, whereas a negative correlation has to exist between EE and turnover.

Additionally, numerous studies have examined the relationship between employee engagement (EE) and innovative behavior (IB) (Ghani et al., 2023; Jo & Hong, 2022; Lee & Song, 2020), with findings consistently showing a positive relationship. However, a study by Wan et al. (2022) found no significant relationship between the two. From the perspective of Organizational Learning Theory (OLT), this relationship can be understood as organizations that emphasize learning foster a culture that promotes both innovation and employee engagement. Accordingly, we propose the following hypothesis.

H3: (EE) is positively related to (IB).

Although learning agility is widely recognized as a direct antecedent of innovative behavior, emerging evidence suggests that this relationship may also unfold through key psychological mechanisms particularly, EE. Individuals with high learning agility tend to exhibit elevated levels of cognitive absorption, emotional dedication, and proactive work involvement (Tripathi & Sankaran, 2021; Jo & Hong, 2022). These characteristics closely align with the core dimensions of EE, which has been consistently linked to improved innovation outcomes (Ghani et al., 2023). From the perspective of Organizational Learning Theory, EE may serve as a key psychological mechanism that helps translate learning agility into actionable insights and innovative behavior.

H4: (EE) mediates the relationship between (LA) and (IB).

#### ***2.2.4 The Moderating Role of Supportive Work Environment (SWE)***

According to Naz et al., (2020) SWE denotes the workplace climate, integrating support from supervisors and peers, challenges encountered, and the chance to apply learned behavior on the workplace. SWE is assessed based on the perceived workplace climate, relationships with supervisors, peer interactions, and organizational support. Peer Group Interaction refers to the processes of communication and mutual influence that take place among members of a peer group. Perceived Organizational Support is based on social exchange theory, which proposes that employees view their organizations as having human-like characteristics and form general beliefs about the extent to which their organization cares about their well-being and values their contributions (Zeng, Yu, Wu, & Liu, 2024). According to Rasool et al., (2021) Workplace environments are generally classified into two types: collaborative and toxic. A collaborative environment fosters a positive and friendly atmosphere, encouraging engagement, enjoyment, and organizational citizenship behavior. In contrast, a toxic workplace is characterized by narcissistic tendencies, aggressive and hostile leadership, intimidation from managers and colleagues, as well as harassment, bullying, and social exclusion. These negative conditions can lead to physical and mental distress, increasing stress, burnout, and psychological strain on employees. Additionally, high work pressure in such environments can result in counterproductive behaviors, ultimately harming organizational efficiency. Areas that need to be focused upon are people should be first in the industrial sector and then work should be second. Employees are able to perform their work when friendly collaboration within their workplace is demanded (Lopez-Cabarcos, Vazquez-Rodriguez, & Quinoa-Piñero, 2022). When it comes to several studies, there is an evident correction between a favorable work climate (SWE) and the behaviors of employees, including job retention (Yusliza et al., 2021; Othman et al., 2022; Shaikh, 2024). Scientists have also observed an SWE as the middle factor in the various issues at workplace. In this respect, the authors of the work by Qadri et al. (2022) examined the influence of Green Human Resource Management routines on millennial employees in Malaysian hotels on their turnover intentions by applying the social exchange theory by using SWE as a moderating factor. Their findings demonstrate that SWE does not have strong influence over this relationship. In another research by Janib et al. (2022), the researchers examined the possibility of SWE between the workload and satisfaction with the job as an intermediary between the two phenomena. Building on SET and OST, employees who perceive strong organizational support are more likely to engage and innovate (Jo & Hong, 2022). However, to our knowledge, no previous research has explicitly examined the moderating role of a supportive work environment (SWE) in the link between

employee engagement and innovative behavior. Thus, the following hypothesis is proposed.

H5: SWE moderate the relation between EE and IB.

### ***2.2.5 The Moderating Role of Organizational Learning Culture (OLC)***

OLC is a critical component of modern organizations, fostering an environment where continuous learning, adaptation, and knowledge-sharing are embedded in daily operations. Garvin (1993) defined OLC as "an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights" (p. 80). Rather than being an isolated event, OLC ensures that learning is a structured and ongoing process that contributes to both individual and organizational growth. Due to such an approach to learning, which is integrated into the core values of the company, the latter becomes much more flexible, creative, and capable of remaining successful in the long perspective. That concept is based on Organizational Learning Theory which states that companies develop and perform even more efficiently via continuous round of knowledge creation, feedback collection, and variation of their actions. Organizational Learning Capacity (OLC) Within this theory, this is the system that can connect the personal and group learning to the day to day activities to help the organization change, innovate and remain invigorated.

The impact of OLC is direct in regard to the ability of a company to handle issues and dynamic markets well. It establishes mechanisms through which all employees learn, know-how and problem solving. The learning culture is also good in fostering group efforts, well-defined ways of solving problems, and the retention of critical information. A study indicates that OLC significantly is associated with good job performance, increased worker engagement, as well as reduced work attrition since employees feel appreciated and have the desire to make the firm successful. Well-established organizational cultures are also able to work much better with market disruptions and newer technology and remain at a stable competitive advantage. Nevertheless, further research should be carried out to observe how OLC can be integrated into the more elaborate models of human behavior (Choi, 2020)

In addition to its immediate influences, the organization learning culture may also alter the intensity of the relationship between the individual skills and the behavior at the workplace. Organizational Support Theory postulates that a good learning culture facilitates the development of psychological safety and developmental resources, and hence the employees will develop a perception that their growth is appreciated which increases their engagement. According to Social Exchange Theory (SET), provision of employees with meaningful support within organization increases the likelihood of employees responding in kind through demonstration of affective commitment and active engagement. Collectively these two theories indicate that the OLC is beneficial in two senses it is a resource within the organization, and it falls under the boundary conditions which are contextual factors that either strengthens or weakens the connection between individual competencies and results. The indirection of the previous research contributes to it Nimranet al. (2024) established that OLC mediated the relationship between empowerment and commitment; Cetindamar et al. (2021) revealed that learning cultures are related to organizational agility; Ju and Kim (2025) proved that cohesive cultures promote the transformation of individual attributes into innovation. The results indicate that OLC offers the cultural framework through which employees are enabled to switch and transfer their agility in learning to quality interaction. The knowledge management and sustainability areas are also associated with the support of this idea. To give one example, Whilst green or learning-based cultures enhance the role of internal

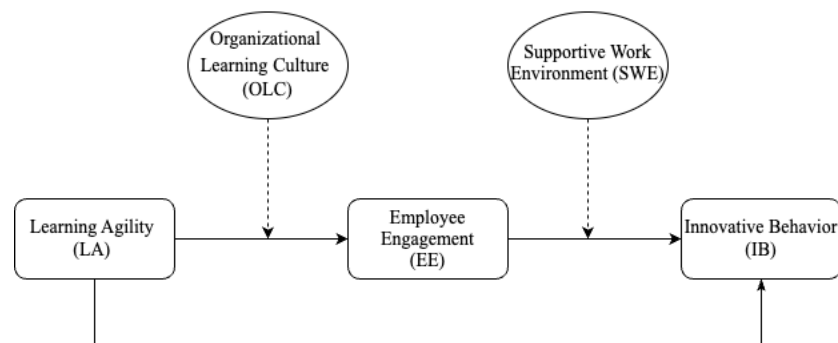


competencies on innovation and performance, so demonstrated by Qu et al. (2021) and Wang et al. (2022) . Arefin et al. (2021) confirmed that OLC enhances the effectiveness of business intelligence systems, reinforcing its role as a strategic enabler.

H6: OLC moderates the relationship between LA and EE.

### 2.3 Conceptual Model

The conceptual model illustrates how learning agility (LA) influences innovative behavior (IB), both directly and indirectly through (EE). It also examines whether organizational learning culture (OLC) and supportive work environment (SWE) moderate these relationships. The model reflects an integrated view of individual capabilities, psychological engagement, and contextual organizational factors in fostering innovation (see Fig. 1).



**Figure 1. Conceptual Model**

## 3. Research Methodology

### 3.1. Research Design and Method

This study adopts a research design guided by the "research onion" framework (Saunders et al., 2019), which systematically aligns research philosophy, strategy, method, and time horizon. The research employed the use of quantitative technique to examine the relationships that exist between various variables. It adheres to a positive perspective which implies that it attempts to be an objective perspective and measure observable things. The ideas of theory were tested by deductive approach. A uniformity in the study and minimization of interpretive bias prompted the use of mono-method quantitative design. Survey information was employed whereby it served well in terms of garnering the opinions of the employees in various organizations. These methodological decisions provide the research some systematic path of investigating the motivating forces behind innovative behavior in Saudi organizations.

### 3.2. Measurement Model

In the current research, a measurement model was developed with precision in such a way that the tent constructs would be valid and reliable. Each construct was entered in reflective measures. The items were validated surveys and they were measured in a 7-point Likert scale that measured 1 to 7 . In order to adapt the Saudi environment, the questionnaire was presented in English and Arabic through the back-transition technique. Bilingual professionals verified this Arabic version by relating it to the contextual situation and consequently five employees

conducted tests in relation to the items to verify the easiness and understanding. The scale eight aspects of Learning Agility (LA) that were based on Tripathi (2024). These items include the adaptability, solicitation of feedback and the utilization of knowledge into various situations. Organizational Learning Culture (OLC) was assessed using seven items from Tripathi (2024) and Watkins and Kim (2018), reflecting a culture of collaboration, trust, and continuous development. (EE) included twelve items adapted from Jo and Hong (2022) and Shuck et al. (2017), structured around three dimensions: cognitive, emotional, and behavioral engagement. Innovative Behavior (IB) was measured through six items from Scott and Bruce (1994), as adapted by Jo and Hong (2022), covering the full innovation process from idea generation to implementation. Supportive Work Environment (SWE) was conceptualized as a four-dimensional construct, measured by validated multi-item scales. Supervisor Support was assessed with 4 items (Rhoades et al., 2001), Peer Group Interaction with 8 items (Ghosh&Sahney, 2011), Perceived Organizational Support with 8 items (Rhoades et al., 2001), and Perceived Climate with 3 items (Kennedy & Daim, 2010). These subdimensions capture both structural and relational aspects of workplace support. The reliability and clarity of all constructs were assessed using SPSS, ensuring internal consistency before proceeding to the final analysis. The measurement model was then evaluated using PLS-SEM via SmartPLS 4, a technique well-suited for complex path models with tent variables and moderate sample sizes. Measurement items and sources are listed in the Appendix.

### **3.3. Data Collection Process and Sampling Selection**

To fulfill the research objectives, data were collected from employees in Saudi Arabia using a non-probability sampling method, following Saunders et al. (2019). Convenience sampling was employed, targeting individuals who were accessible, available, and willing to complete the questionnaire. The survey was directed online using Google Forms and distributed to 514 employees across various Saudi organizations in April 2025. Recruitment was conducted via LinkedIn professional messages, and one week after the initial contact, a follow-up reminder was sent to encourage participation. Out of the 514 invited participants, 206 valid and complete responses were collected, resulting in a 40% response rate. Participation was entirely voluntary, no personal data was collected, and all responses were anonymous and treated confidentially. All data were screened for completeness and unusual response patterns. This rate is considered acceptable for online organizational research, ensuring sufficient statistical power for the applied SEM analysis (Baruch& Holtom, 2008).

## **4. Data Analysis &Results**

Here, the study analysis and findings are presented, and the major emphasis is put on determining the effects of LA on IB. The study also examines the moderating position of EE in the connection between LA and IB. Besides, it examines how OLC moderates the relationship between LA and EE, and how SWE moderates the relationship between EE and IB. Smart PLS 4 and SPSS 23 were used in this paper. The first one is descriptive statistics. Then we have a complete analysis of the measurement and structural models.

### **4.1. Profile of participants**

The research involves 206 participants, which are experienced and have various working fields. They can be used in the study of group behaviors and the dynamics of innovation in Saudi Arabia because of their background. The greater part of the respondents (69.4 per cent) is male.

The age group of 35-54 years forms the majority of them (65.6%) and at this age bracket, they are mature employees. A majority of the surveyed have a college education with 68.8 percent having attained a bachelor degree or more showing that they possess good academic qualifications. Many of the respondents are in high (40.8%) and executive leadership (33.5%), which means that they exercise actual power and are involved in strategic work. Nearly out of every two respondents (44.2%) has more than 20 years of experience as a contributor to the professional experience within the sample. The public sector was the primary employment context (53.9%), followed by the private sector (39.8%), with a broad representation across industries most notably transportation and logistics (33.5%), education (15.0%), and healthcare (10.7%). A significant majority were employed in large organizations with over 500 employees (69.9%), and 74.8% worked in companies that had been established for more than 20 years. Collectively, this demographic composition provides a robust foundation for exploring the dynamics of learning agility, engagement, and innovation in established organizational environments undergoing transformation (Tabel 1).

**Table 1.**Participants' Demographic profiles.

Participants' Details (n = 206)	Frequency	Percentage
Gender		
<b>Male</b>	143	69.4%
<b>Female</b>	63	30.6%
Age		
<b>Less than 25</b>	5	2.4%
<b>25–34 years</b>	39	18.9%
<b>35–44 years</b>	72	35.0%
<b>45–54 years</b>	63	30.6%
<b>55 years or older</b>	27	13.1%
Education Level		
<b>High school or less</b>	17	8.3%
<b>Diploma</b>	41	19.9%
<b>Bachelor</b>	98	47.6%
<b>Master</b>	40	19.4%
<b>Ph.D.</b>	10	4.9%
Job Level		
<b>Entry Level</b>	4	1.9%
<b>Mid-Level</b>	33	16.0%
<b>Senior Level</b>	84	40.8%
<b>Executive Level</b>	69	33.5%
<b>Other</b>	16	7.8%
Work Experience		
<b>Less than 5 years</b>	16	7.8%
<b>10–6 years</b>	42	20.4%
<b>15–11 years</b>	29	14.1%
<b>20–16 years</b>	28	13.6%

<b>More than 20 years</b>	91	44.2%
Employment Sector		
<b>Government</b>	111	53.9%
<b>Private</b>	82	39.8%
<b>Non-profit</b>	1	.5%
<b>Other</b>	12	5.8%
Industry Sector		
<b>Education</b>	31	15.0%
<b>Healthcare</b>	22	10.7%
<b>Manufacturing/Industrial</b>	5	2.4%
<b>Information Technology</b>	7	3.4%
<b>Finance &amp; Banking</b>	9	4.4%
<b>Retail &amp; Services</b>	16	7.8%
<b>Construction &amp; Real Estate</b>	4	1.9%
<b>Transportation &amp; Logistics</b>	69	33.5%
<b>Other</b>	43	20.9%
Company Age		
<b>Less than 5 years</b>	7	3.4%
<b>6–10 years</b>	15	7.3%
<b>11–15 years</b>	15	7.3%
<b>16–20 years</b>	15	7.3%
<b>More than 20 years</b>	154	74.8%
Company Size		
<b>Less than 50 employees</b>	23	11.2%
<b>50–99 employees</b>	21	10.2%
<b>100–249 employees</b>	10	4.9%
<b>250–499 employees</b>	8	3.9%
<b>(500employees or more)</b>	144	69.9%

## 4.2 Common Method Bias/ Variance (CMB/CMV)

### 4.2.1 HARMAN's One-Factor Test

The results from Harman's one-factor test using Principal Component Analysis (PCA) in Table 2 show that the first component explains 35.243% of the total variance, with an eigenvalue of 19.736, highlighting its importance in capturing the variability within the dataset. This level of explained variance indicates a multifactorial structure, as no single factor dominates the variance. This finding is crucial for evaluating common method variance, as the absence of a dominant factor suggests a lower risk of common method bias impacting the results. These results enhance the credibility of the data and reinforce the robustness of the study's findings (Aguirre-Urreta & Hu, 2019).

**Table 2.** HARMAN's test

Extraction Sums of Squared Loadings		
Total	% of Variance	Cumulative %
19.736	35.243	35.243

### 4.3 Measurement model

#### 4.3.1 Descriptive Analysis of Measurement Scales

Table 3 presents the descriptive statistics and validation indicators for the measurement scales. The analysis shows that most items recorded moderately high to high mean scores, indicating a generally positive response trend among participants. Standard deviations (SDs) were within reasonable ranges, suggesting acceptable variability in responses. In terms of factor loadings, the majority of items exceeded the recommended threshold of 0.70 (Hair et al., 2011), affirming good construct reliability. Notably strong loadings include LA8 (0.881), OLC3 (0.839) and SWE14 (0.863). However, some items fell below the ideal threshold; for example, EE3 (0.628), EE4 (0.642), and SWE9 (0.600) show relatively weaker loadings but remain within acceptable limits for exploratory research. To evaluate multicollinearity, Variance Inflation Factor (VIF) values were assessed. According to Hair et al. (2010), multicollinearity is considered problematic when VIF values reach 10 or higher. In the current analysis, all VIF values are well below this critical threshold, indicating no serious multicollinearity concerns. For instance, variables such as LA6 (1.571) and IB2 (3.249) demonstrate acceptable independence from other variables in the model.

Regarding data normality, skewness values ranged from -1.832 to -0.299, and kurtosis values from -1.021 to 4.202. Following the criteria set by Byrne (2010) and Hair et al. (2010), all values fall within the acceptable limits of  $\pm 2$  for skewness and  $\pm 7$  for kurtosis. This supports the assumption of normality across the dataset.

**Table 3.** Descriptive analysis of measurement scales

Items	Mean	SD	Factor Loading	VIF	Skewness	Kurtosis
<b>LA6</b>	6.20	.865	0.791	1.571	-1.457	3.229
<b>LA7</b>	6.12	.963	0.845	1.688	-1.240	1.572
<b>LA8</b>	6.03	.863	0.881	1.838	-.801	.629
<b>OLC1</b>	4.14	1.887	0.805	2.234	-.299	-1.021
<b>OLC2</b>	4.63	1.620	0.717	1.668	-.658	-.232
<b>OLC3</b>	4.38	1.653	0.839	2.673	-.588	-.514
<b>OLC4</b>	4.67	1.583	0.804	2.355	-.547	-.412
<b>OLC5</b>	4.76	1.724	0.827	2.533	-.618	-.456
<b>OLC6</b>	5.00	1.574	0.786	1.977	-.735	-.008
<b>OLC7</b>	4.68	1.760	0.846	2.697	-.614	-.478
<b>EE3</b>	6.35	.742	0.628	2.149	-1.171	1.863
<b>EE4</b>	6.13	.846	0.642	2.094	-.927	.971
<b>EE5</b>	5.93	1.290	0.758	2.918	-1.677	3.231
<b>EE6</b>	5.80	1.446	0.790	3.526	-1.523	2.050



<b>EE7</b>	5.60	1.589	0.732	2.591	-1.397	1.446
<b>EE8</b>	5.89	1.330	0.808	3.645	-1.553	2.559
<b>EE9</b>	6.00	1.173	0.776	2.375	-1.832	4.202
<b>EE10</b>	5.83	1.349	0.739	2.559	-1.396	1.884
<b>EE11</b>	5.85	1.304	0.669	2.086	-1.559	2.891
<b>EE12</b>	5.74	1.336	0.808	3.387	-1.010	.349
<b>IB1</b>	5.66	1.161	0.828	2.707	-1.109	2.186
<b>IB2</b>	5.49	1.244	0.863	3.249	-.971	1.445
<b>IB3</b>	5.66	1.074	0.805	2.028	-.493	-.318
<b>IB4</b>	4.81	1.498	0.712	1.712	-.516	-.097
<b>IB5</b>	5.23	1.362	0.787	1.952	-.900	.822
<b>SWE1</b>	5.13	1.615	0.765	4.120	-.838	-.044
<b>SWE2</b>	5.44	1.569	0.781	5.426	-1.050	.463
<b>SWE4</b>	5.13	1.674	0.817	5.885	-.825	-.010
<b>SWE9</b>	5.48	1.350	0.600	1.588	-1.022	1.003
<b>SWE13</b>	5.35	1.420	0.792	3.392	-.998	1.004
<b>SWE14</b>	4.80	1.567	0.863	6.160	-.633	-.130
<b>SWE15</b>	4.68	1.659	0.869	5.681	-.606	-.323
<b>SWE16</b>	4.56	1.621	0.857	6.331	-.475	-.423
<b>SWE17</b>	4.66	1.641	0.809	5.324	-.525	-.398
<b>SWE18</b>	4.78	1.634	0.842	6.405	-.660	-.212
<b>SWE19</b>	4.73	1.568	0.744	2.961	-.568	-.210
<b>SWE20</b>	4.58	1.759	0.763	3.209	-.486	-.655
<b>SWE21</b>	5.10	1.482	0.755	2.560	-1.013	.735
<b>SWE22</b>	5.16	1.571	0.805	3.373	-1.000	.582
<b>SWE23</b>	5.55	1.395	0.718	2.706	-1.244	1.636

#### 4.3.2 Convergent Validity

As shown in Table 4, Cronbach's alpha assesses the internal consistency of the items within each construct, with values above 0.7 considered acceptable (Cortina, 1993). All constructs meet this threshold, with SWE (0.956), OLC (0.909), and EE (0.906) demonstrating excellent internal consistency.

Composite reliability (rho a and rho c) incorporates factor loading with other information to provide a broader sense of reliability. Hair et al. (2021) state that values of over 0.7 are an indicator of good construct reliability. In this model all constructs are above that mark SWE (0.960, 0.961), OLC (0.913, 0.928), EE (0.910, 0.922), IB (0.862, 0.899), and (0.810, 0.878). These findings support that all the constructs indicate strong composite reliability. The proportion of variance of the constructs owing to the construct and none to the measurement error can be determined using a measure called average variance extracted (AVE). Convergent validity can be indicated by AVE above 0.5 (Hair et al., 2021). This is passed by all constructs, just that LA (0.706), IB (0.641), OLC (0.647), SWE (0.621) and EE (0.544) have reasonable to strong convergent validity because the constructs explain a significant amount of item variance.

**Table 4.**Measurement Model

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
EE	0.906	0.910	0.922	0.544
IB	0.859	0.862	0.899	0.641
LA	0.792	0.810	0.878	0.706
OLC	0.909	0.913	0.928	0.647
SWE	0.956	0.960	0.961	0.621

#### 4.3.3 Discriminant Validity

The difference between constructs should be articulate. Two tests assist in the demonstration of this. The Fornell and Larcker criterion (1981) is the first test, the second one is HTMT. The tests are based on the average common variance between all of the constructs known as the AVE. The AVE in each of the construct is presented in the main diagonal of the table and is greater than any other correlation between constructs. In another instance, the square root of the AVE of (EE) 0.738 is more than the correlations of Innovative Behavior (IB = 0.710), Learning Agility (LA = 0.517), Organizational Learning Culture (OLC = 0.577) and Supportive Work Environment (SWE = 0.591). The square root of AVEfor IB is 0.801, and this is greater than its correlations. This implies that Fornell-Larcker (1981) criterion is fulfilled. Most of the inter-construct correlations observed were below the recommended HTMT threshold of 0.85 or 0.90. As an example, there is correlation is 0.726 between OLC and SWE which is acceptable. Overall, the HTMT analysis supports that the constructs in the model EE, IB,LA, OLC, and SWE measure distinct theoretical concepts, confirming strong discriminant validity (Franke&Sarstedt, 2019; Rasoolimanesh, 2022).

**Table 5.**Discriminant validity (Fornell-Larcker) criterion and Heterotrait ratio (HTMT)h

	EE	IB	LA	OLC	SWE
EE	<b>0.738</b>	0.709h	0.517h	0.577h	0.591h
IB	0.630	<b>0.801</b>	0.525h	0.467h	0.546h
LA	0.434	0.443	<b>0.840</b>	0.240h	0.341h
OLC	0.538	0.414	0.211	<b>0.804</b>	0.726h
SWE	0.560	0.504	0.305	0.684	<b>0.788</b>

#### 4.4 Structural Model

Table 6 gives the value of the R-square and the adjusted R-square of the various dependent variables of our study. Specifically, the model accounts for 39.8% of the variance in **(EE)** ( $R^2 = 0.398$ ) and **46.0%** of the variance in **Innovative Behavior (IB)** ( $R^2 = 0.460$ ). The adjusted R-square values, **0.389** for EE and **0.450** for IB, are slightly lower, accounting for model complexity and the number of predictors. These values indicate that the model demonstrates a moderate level of explanatory power while maintaining parsimony. Overall, the results support the adequacy of the model specification and the theoretical relevance of the selected predictors, affirming the model's predictive strength (Henseler, Ringle, & Sinkovics, 2009).

**Table 6.**R-square & R-square adjusted

	R-square	R-square adjusted
EE	0.398	0.389
IB	0.460	0.450

#### 4.4.1. Collinearity statistics (VIF)

Table 7 is the table of VIF (Variance Inflation Factor) of each predictor in the regression analysis. VIF is an indicator of determination of multicollinearity. Interaction terms such as SWE x EE (1.156) and OLC x LA (1.117) also exhibit acceptable VIF values, suggesting that the introduction of these interaction effects does not induce problematic multicollinearity. These results confirm that the model is well-specified, with minimal risk of inflated standard errors due to collinearity (Hair et al., 2019).

**Table 7.**Collinearity assessment, VIF inner model

	EE	IB	OLC	SWE	SWE x EE	OLC x LA
EE		1.867				
IB						
LA	1.152	1.244				
OLC	1.084					
SWE		1.486				
SWE x EE		1.156				
OLC x LA	1.117					

#### 4.4.2 Structural Model and Hypothesis testing

The model main links are well supported based on the results of the study. The positive influence of a significant impact of living away from home (LA) is on (IB) ( $\beta = 0.194$ ,  $p = 0.003$ ) and on (EE) ( $\beta = 0.322$ ,  $p < 0.000$ ). Additionally, EE significantly influences IB ( $\beta = 0.434$ ,  $p < 0.000$ ). The relationship between LA and IB has the mediation effect by EE which is significant and exists ( $\beta = 0.140$ ,  $p = 0.000$ ). There was no case to support the moderation effects. OLC interaction and LA did not have any significant effect to the EE ( $\beta = -0.042$ ,  $p = 0.602$ ), whereas moderation effect of SWE on the relationship between EE and IB also had no significance ( $\beta = 0.005$ ,  $p = 0.936$ ). The results indicate that the primary direct and mediated relationships are significant, where the significant moderating factors in the proposed model are not useful in moderating the relationship relationships in the existing model (Hair et al., 2019) (Table 8).

**Table 8.**Structural model and Hypothesis testing

Hypothesis	Relationships	Path coefficient	P values	Decision
H1	<b>LA -&gt; IB</b>	0.194	0.003	Supported
H2	<b>LA -&gt; EE</b>	0.322	0.000	Supported
H3	<b>EE -&gt; IB</b>	0.434	0.000	Supported
H4	<b>LA -&gt; EE -&gt; IB</b>	0.140	0.000	Supported
H5	<b>OLC x LA-&gt; EE</b>	-0.042	0.602	Unsupported
H6	<b>SWE x EE -&gt; IB</b>	0.005	0.936	Unsupported

## 5. Discussion

The findings provide meaningful contributions to the literature on organizational behaviour, offering empirical support for several key theoretical relationships proposed in the research model.

According to DeRue et al. (2012), individuals with high learning agility embrace innovation with confidence, readily take on new challenges, display strong experimental tendencies, and achieve results through effective communication characteristics that align closely with innovative behaviour. Similarly, Franco and Landini (2022) demonstrated that workforce agility, an extension of individual learning agility, significantly shapes employee motivation and behaviour, which in turn promotes innovation, particularly through task agility that shows a stronger impact on process innovation. According to recent research by Atkinson et al. (2022), the foundation of organizational agility is on agile learners who promote innovation. The statement is confirmed by Govuzela and Mafini (2019), who demonstrate that high-learning-agile employees pursue innovation activities. Tripathi and Dhir (2023) further note that learning agility is closely related to greater innovation in an organization, as the latter is pushed and sustained by agile workers. All together, these studies support the H1 and demonstrate that learning agility has a severe impact on innovative behaviour.

It also supports H2 saying that learning agility and EE have a positive relationship. The results ( $\beta = 0.322$ ,  $p < .001$ ) are similar to previous studies that emphasized the importance of learning agility in enhancing engagement. According to Jo and Hong (2022), the agility enhances accessibility to development opportunities as well as enhances retention and Joo and Lim (2009) stress on the importance of a positive organizational learning environment to encourage engagement. According to Eldor and Harpaz (2016), there are intrinsic and extrinsic motivation that is generated by learning activities. Halbesleben (2010) and Ism and Tariq (2018) point out that, such environments encourage employees to achieve the organizational goals and maintain personal development and self-realization. Salanova et al. (2010) continue that within such environments self-efficacy and positive self-perception is increased. Similar empirical findings are also found in Saputra (2018), Ogueyungbo et al. (2020), and Kwon and Lee (2020) that reveals a strong, positive association between learning agility and superior EE. Collectively, these findings leave little doubt that learning agility becomes critical when creating dedicated, engaged workforces.

This study discovered that (EE) has a strong association with innovative behaviour (IB) ( $\beta = 0.434$ ,  $p < 0.001$ ). This favours H3. Through this, it demonstrates that engaging employees enables them to perform innovatively. The research relies on previously conducted studies, where a

positive relationship between EE and IB was found as well (Ghani et al., 2023; Jo & Hong, 2022; Lee & Song, 2020). According to these studies, workplace engagement describes individuals who feel committed, enthusiastic, and invested in their work as psychologically engaged employees and they are likely to work creatively and to take initiative, which are core requirements of innovation. But this is not what all studies conclude. Wan et al. (2022) failed to note the significance of linking EE and IB and therefore, a shift in context or culture, or implemented methodology may be considered important.

This observation stresses the role of EE as a psychological process by means of which individuals with learning agility convert their adaptive skills into creative behaviours. It supports new findings that propose that the LA -IB relationship entails direct and engagement-based routes (Tripathi & Sankaran, 2021; Jo & Hong, 2022). Individuals with high learning agility are often characterized by strong cognitive focus, emotional commitment, and proactive work behaviours qualities that align closely with the key dimensions of EE. As Ghani et al. (2023) note, such engagement is consistently linked to higher levels of innovation. The current study builds on this understanding by demonstrating that engaged employees are more likely to transform their learning-oriented traits into tangible innovative behaviours, thereby reinforcing the integrative role of EE within the learning agility innovation dynamic. Therefore, H4 is supported

The proposed moderating role of Organizational Learning Culture (H5) between Learning Agility and EE was not statistically supported ( $\beta = -0.042$ ,  $p = 0.602$ ). Although extensive literature suggests that strong learning cultures positively influence various organizational outcomes including engagement, performance, and adaptability (Lin & Huang, 2021; Tripathi & Kalia, 2024) our findings indicate that OLC does not significantly moderate the relationship between LA and EE in this context. This result diverges from the theoretical expectations derived from both Organisational Support Theory and Social Exchange Theory. According to these frameworks, a supportive learning environment should foster psychological safety and provide developmental resources (Urrutia Pereira et al., 2021; Kittel et al., 2021), prompting employees to reciprocate through higher engagement (Haider et al., 2022). While previous research supports the moderating potential of OLC in other relational models such as between empowerment and commitment (Nimran et al., 2024) or innovation and organizational competencies (Cetindamar et al., 2021; Ju & Kim, 2025) the present study found no significant interaction between OLC and LA in EE.

Similarly, while prior studies in knowledge management and sustainability have found that learning-oriented cultures enhance the effectiveness of internal competencies (Qu et al., 2021; Wang et al., 2022; Arefin et al., 2021), these effects may not generalize to all relational frameworks or organizational settings. This finding suggests that although OLC is a valuable strategic resource, its role as a boundary condition between individual traits and behavioral outcomes may be context dependent.

Regarding the findings on the moderating role of a Supportive Work Environment (SWE) in the relationship between employee engagement and innovative behavior, the results of this study revealed that SWE does not have a significant moderating effect ( $\beta = 0.005$ ,  $p = 0.936$ ). Consequently, H6 was not supported. This result presents a distinctive feature of the current research, as prior studies have not directly examined the moderating influence of SWE between these two specific variables. While numerous studies have established the positive impact of SWE on individual outcomes such as well-being, engagement, and organizational citizenship behavior (Rasool et al., 2021; López-Cabarcos et al., 2022), and have linked it with retention and job



satisfaction (Yusliza et al., 2021; Othman et al., 2022; Shaikh, 2024), the role of SWE as a moderator has shown inconsistent findings across different contexts.

In line with the present results, Qadri et al. (2022) investigated SWE as a moderator in the context of Green Human Resource Management and turnover intentions and similarly found that SWE did not significantly moderate the relationship. These findings suggest that while a supportive work environment may directly influence various employee attitudes and behaviors, its role as a moderator in more complex relational models, such as between engagement and innovation, may not be as influential as hypothesized.

Overall, the findings contribute positively to the understanding of how individual and organizational factors interact to foster innovation. They highlight the practical significance of promoting learning agility and engagement, while encouraging future investigations to explore additional contextual and cultural influences that may further strengthen these relationships.

## **6. Implications & Conclusion**

### **6.1. Theoretical Implications**

This research makes significant theoretical contributions by extending the literature on learning agility within the underexplored context of the Saudi Arabian workplace. It reveals that EE is an intermediate process between learning agility and innovative behavior. The results contribute to the organizational behavior framework and why agile and engaged workers establish an innovation capability in a company. While the moderating roles of organizational learning culture (OLC) and supportive work environment (SWE) were not statistically supported, their inclusion contributes theoretically by challenging assumptions about the universal influence of contextual factors on innovation-related behaviors. This suggests that the effects of organizational culture and support mechanisms may be more context-dependent, warranting further theoretical exploration in different cultural and structural settings.

Furthermore, the study situates Vision 2030 within an empirical framework, illustrating how national transformation initiatives shape organizational practices and employee behavior. As per recent research, a combination of learning agility, engagement and organizational conditions brings innovation and the growth of human capital. The research, which is carried out in an emerging market economy, provides empirical data which supports the findings and assists the global debate regarding enhancing innovation in fast paced economies. As a result, its findings can be applied to any organization across the world.

### **6.2. Practical Implications**

As demonstrated in this paper, learning agility and EE has a high influence on innovation in workplace in Saudi Arabia. One of the primary ways through which learning agility becomes innovative behaviour is through engaged employees, which provides organizations with a useful direction. The study presents essential variables such that organizations can align their innovation policies with Vision 2030.

The findings can be implemented to develop business leaders and HR specialists create specific training and development programs that can foster agility and engagement among employees to subsequently enhance creativity, adaptability, and problem-solving in working environments. The research also assists policy makers and organizational decision makers to develop launch and maintain a culture of innovation. Through engagement and agility and how the two rete, organizations can work to develop a culture where continuous innovation and long-term

competition prevail. The study is also industry specific in the sense that each industry will apply customized approaches that can most optimize the effects of innovation efforts. The above practical outcomes are directly linked to the national transformation objectives of Saudi Arabia and reflect the ability of human capital together with organizational culture in creating a robust, knowledge-based economy.

### **6.3. Limitation and Future Research Directions**

This research provides a valuable foundation to the researchers, yet it has few limitations. To begin with, the statistics were collected based on self-reported, which is not accurate and is, therefore, biased. Respondents could respond to a question in a manner they believe is acceptable to the society, or they could fail to recall precisely what they had done or felt. Instead, to enhance validity, future studies would be able to rely on observational techniques. Second, it gathered data once, therefore, they cannot illustrate how the key variables will change with time. Third, the present study established the fact that there is EE between learning agility and innovative behaviour; it mediates, or elucidates, their interrelation. Nevertheless, the moderating effects of organizational learning culture and supportive work environment were not identified. These results allude to the fact that there are other variables or situations that ought to be considered to have a full insight on how learning agility ignites innovation. Lastly, the research was conducted in Saudi Arabia specifically and therefore its findings may not be generalizable to other nations or regions. In future, the study should be replicated in varying environments to prove and expand the use of such findings.

### **6.4 Conclusion**

This research examined the relationship between learning agility and innovative behavior within the Saudi Arabian workplace. It demonstrated that EE is a major mediator, or intervener, that transforms learning agility into innovation. The study also focused on whether their extra influence, or moderation, this relationship included such factors as OLC and SWE. The latter did not prove that they were great moderators, i.e. they can change the relationship in a not so noticeable way. This result implies that engagement is critical to the transformation of personal learning agility into innovation among employees. However, the effects of OLC and SWE may, in future research, prove to be more nuanced than was anticipated in the present study. The present research can contribute to theory as it helps to understand how individual skills may trigger innovation and provides organizations with concrete guidelines on increasing engagement and innovation. The struggle to unleash human potential, via agility, enrollment and innovation, has now become critical as Saudi Arabia transitions towards its Vision 2030. This study gives a prospective framework which connects individual agility in learning to the organizational culture and support frameworks, a gap that has existed in literature. The research is limited. Ultimately, this research contributes to theory and provides Saudi organizations with the evidence-based means of establishing future ready workplaces places that will thrive rather than survive during their time of change; workplaces that are more innovative and that will contribute to the development of a resilient and knowledge-centered economy as stated by the Vision 2030.

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