نمذجة العلاقات السببية بين التوجهات الإستراتيجية وشغف القيادة والسلوك الابتكاري للقيادات الأكاديمية

A Causal Relationship Modeling of the Strategic Orientations, Leadership Passion, and Innovative Behavior for Academic Leaders

إعداد

د. عزلاء بنت محمد مطلق الغامدي

أستاذ القيادة التربوية في التعليم العالي المشارك – كلية التربية – جامعة الباحة

DR. Azala Mohammad Mutlaq Alghamdi

Associate Professor of Educational Leadership in Higher Education

College of Education, Al- Baha University

amotlaq@bu.edu.sa

نمذجة العلاقات السببية بين التوجهات الإستراتيجية وشغف القيادة والسلوك الابتكاري للقيادات الأكاديمية

إعداد

د. عزلاء بنت محمد مطلق الغامدي

أستاذ القيادة التربوية في التعليم العالي المشارك – كلية التربية – جامعة الباحة

E-mail: amotlaq@bu.edu.sa

المستخلص:

هدفت هذه الدّراسة إلى الكشف عن العلاقات السببيّة بين التوجهات الإستراتيجية وشغف القيادة والسلوك الابتكاري لدى القيادات الأكاديمية بجامعة الملك سعود؛ من خلال نمذجة سببية مقترحة تستند إلى أسس معرفية اعتمدت أسلوب تحليل المسار لتفسير السلوك الابتكاري. ولتحقيق هدف الدراسة تم تصميم مقياس التوجهات الإستراتيجية ومقياس شغف القيادة من إعداد الباحثة، ولقياس السلوك الابتكاري تم تبني مقياس Janssen (2000)، وتكونت عينة الدراسة من القيادات الأكاديمية، حيث تم اختيارهم بالطريقة العشوائية. أظهرت النتائج وجود مستويات عالية من التوجهات الإستراتيجية، والشغف القيادي، وكذلك السلوك الابتكاري لدى القيادات الأكاديمية في جامعة الملك سعود، كما كشفت النتائج وجود تأثير إيجابي مباشر للتوجهات الإستراتيجية لدى القيادات الأكاديمية في السلوك الابتكاري وشغف القيادة. بينت نتائج الدراسة –أيضًا– أن شغف القيادة يتوسط جزئيًا في علاقة التأثير بين التوجهات الإستراتيجية والسلوك الابتكاري، ولم تكشف الدراسة عن فروق ذات دلالة إحصائية بين النموذج المقترح والنموذج المثالي وذلك لارتفاع مؤشرات المطابقة والتي كانت NFI = 1.000; RMSEA = 0.000; GFI = 1.000, and CFI= 1.000. ووفقًا لهذه النتائج، فإن النموذج المقترح يفسر العلاقات التي تم دراستها ويعبر عن النموذج السببي الأمثل لمتغيرات الدراسة. وبناءً عليه، توصي الدراسة بضرورة الاعتراف بأهمية الشغف القيادي لدى القيادات الأكاديمية نظير دوره الوسيط في العلاقة بين التوجهات الإستراتيجية والسلوك الابتكاري لديهم.

الكلمات المفتاحية: التوجهات الإستراتيجية؛ شغف القيادة؛ السلوك الابتكاري؛ القيادات الأكاديمية؛ جامعة الملك سعود.

A Causal Relationship Modeling of the Strategic Orientations, Leadership Passion, and Innovative Behavior for Academic Leaders

DR. Azala Mohammad Mutlaq Alghamdi

Associate Professor of Educational Leadership in Higher Education
College of Education, Al- Baha University
E-mail: amotlaq@bu.edu.sa

Abstract:

This study aimed to reveal the causal relationships among strategic orientations, leadership passion, and innovative behavior of academic leaders at King Saud University. A proposed causal relationship model, based on scientific foundations, was constructed using path analysis for the interpretation of innovative behavior. A scale was designed to measure strategic orientations and leadership passion, and Janssen's scale (2000) was employed to assess levels of innovative behavior. The study sample comprised randomly selected academic leaders. The findings showed a high level of strategic orientations, leadership passion, and innovative behavior among academic leaders at KSU. The strategic orientations of the academic leaders were found to directly and positively impact innovative behavior and leadership passion. Moreover, the study results revealed that leadership passion partially mediates the influence relationship between strategic orientations and innovative behavior among academic leaders at KSU. The findings indicated no statistically significant differences between the proposed and the optimal causal relationship model due to high matches on the following values: NFI = 1.000; RMSEA = 0.000; GFI = 1.000; and CFI= 1.000. Accordingly, the model confirms the proposed relationships and represents the optimal causal relationship model for the study variables. Thus, the study recommends acknowledging the importance of academic leaders' leadership passion at Saudi universities due to the mediating role of leadership passion in the relationship between strategic orientations and innovative behavior among academic leaders.

Keywords: strategic orientations; leadership passion; innovative behavior; academic leaders; King Saud University.

Introduction

Universities are innovation factories and produce innovators who develop proactive ideas and unique products. Indeed, innovation is no longer an option for higher education institutions (Choi et al., 2021), as it is becoming mandatory. A university ecosystem that fosters and transforms ideas into innovative products is one of the most critical requirements of entrepreneurial universities, given the difficulties, challenges, and intense competition they face. Kleysen and Street (2001) explained that innovative behavior is an individual action that contributes to presenting and applying novelty at the organizational level. Additionally, Alghamdi (2022) noted that promoting innovative behavior and providing a supportive environment at universities are essential for preparing a variety of circumstances and dealing with changing situations. Supporting innovation must begin from the top leaders, who can increase individuals' innovative activities, mainly by providing an innovative atmosphere (Kamran & Ganjinia, 2017). Specifically, academic leaders who demonstrate innovative behavior support novel ideas and activities and generate an innovative work setting that stimulates innovative behavior among individuals.

Passionate leaders are critical in developing higher education strategies as they are responsible for promoting teaching, innovation, and research (Al-Qarni, 2021; Krzakiewicz & Cyfert, 2019). This responsibility emphasizes the strategic role of leaders in advancing innovations that benefit higher education institutions and society. In particular, Miwan and Naji (2023), Amin and Viola (2022), and Zulfqar et al. (2021) have emphasized the significance of the strategic role that academic leaders play in higher education institutions to promote innovations. Currently, higher education institutions demand passionate leaders with a clear strategic orientations philosophy, which enables them to work innovatively. Yamak and Eyupoglu (2021) asserted that the increasing demand for innovative leaders over the past six decades has occurred because organizations need passionate leaders with innovative behavior who can motivate employees to show positive behaviors that contribute to their progress and the achievement of the university's strategic goals. Pursuing educational improvements depends on academic leaders' strategic orientations, passion, and innovative behaviors. Academic leaders with a high level of passion are essential for higher education institutions as they are enthusiastic about achieving innovative activities and express passion for their services to different parties. Overall, a passionate academic leader shows innovative behaviors in learning, research, community services, and leadership tasks. Vallerand et al. (2003) described these leaders as those who are drawn to an activity because they find it exciting and engaging and, thus, can be referred to as passionate.

The strategic orientations of higher education institutions determine their ability to rank among the best universities in the world. Importantly, academic leaders must guide their universities toward higher performance and viability in the face of competition and change (Miwan & Naji, 2023; Al Ahmari, 2022; Al-

Qarni, 2021; Krier, 2022), which includes focusing on strategic orientations in leadership. An institution's strategic orientations influence and direct its activities, as well as ensuring sustainability and outstanding performance (Al-Issa & Al-Shehri, 2020; Hakala, 2011). Cheluget and Koech (2018) described strategic orientations as a set of methods through which an institution enhances its strengths, takes advantage of its available market opportunities, reduces its weaknesses, and avoids the threats it faces. In the same context, there are many types of strategic orientations, each of which can positively impact an institution's performance and behavior (Balodi, 2014). For instance, strategic orientations include entrepreneurial, market, learning, and technological orientations (Krzakiewicz & Cyfert, 2019; Tutar et al., 2015). Each of these orientations address the issue of how to compete in any given market (Krzakiewicz & Cyfert, 2019).

Regarding entrepreneurial orientation, academic leaders must encourage a proactive, innovative, and risk-taking approach in their higher-education institutions. These academic leaders must also seek ways to generate new knowledge (Carvalho et al., 2021). Learning orientation, on the other hand, refers to the learning and use of new knowledge to support entrepreneurial activity. In academic settings, learning is strongly connected to the capacity for innovation, as learning orientation is necessary for innovativeness (Calantone et al., 2002). The essential characteristics of learning orientation that academic leaders must foster include a shared vision, a commitment to learning, intra-organizational information exchange, and open-mindedness (Hakala, 2013). Moreover, a successful academic leader must develop a strategic plan to comprehend and provide value to students and other stakeholders, as this will assist the institution's market orientation (Alkshali & Alhasani, 2021). In this regard, market orientation provides higher value to clients (Tjahjadi et al., 2022). Finally, technological orientation is also considered critical for institutions because it involves promoting and developing innovations (Tutar et al., 2015). Indeed, an effective academic leader should utilize a modern technological orientation, particularly in their leadership work (Al Ahmari, 2022).

The context of higher education is becoming more complicated and competitive. Academic leaders must, thus, respond to these changes by implementing new technologies and innovative ideas (de Jong & Den Hartog, 2007). Unlike other leaders, passionate leaders with innovative behavior can inspire employees to generate and promote new ideas. A passionate demand for innovation enhances performance (Chen et al., 2009) and encourages employees to do more than expected. According to Alghamdi (2022), academic leaders directly and positively impact their staff members' innovative work behavior. Indeed, scholars and professionals in the field of leadership are paying more attention to leaders' innovative behavior due to its role in achieving the strategic orientations of institutions and achieving a competitive advantage. Therefore, this study aims to develop a causal model of the relationships among the strategic

orientations, leadership passion, and innovative behavior of academic leaders at KSU and to determine the role of leadership passion as a mediating variable in the relationship between strategic orientations and innovative behavior.

Purpose of the Study

This study aims to develop a causal model of the relationships among academic leaders' strategic orientations, leadership passion, and innovative behavior and to test the model with the collected data from the chosen research sample.

Research Problem

The contemporary global dynamics in higher education demand innovative research, innovative organizational structures, and innovative pedagogies (Tierney & Lanford, 2016), thus meaning academic leaders must engage in innovative work behavior. According to the World Intellectual Property Organization (WIPO) report, Saudi Arabia has made impressive progress in terms of research, development, and innovation, as it has moved up 15 ranks in the Global Innovation Index (Saudi Press Agency, 2023). Embracing innovation and entrepreneurship is a global trend that universities and other higher education institutions must follow; indeed, innovation plays a significant role in boosting the national economy, individual performance, and sustainability in general (Al-Rabghi & Mugled, 2021). Therefore, in 2020, the Saudi government established the Research Development and Innovation Authority (RDIA) to achieve national priorities, particularly in research development and innovation in higher education institutions.

King Saud University (KSU) is one of the crucial entrepreneurial universities supporting innovation and transforming innovative research ideas into value-added projects for the national economy. In 2008, KSU established the Innovation Center to support innovators and provide them with a stimulating environment for innovation. This center comprises four units: digital innovation, social innovation, science technology innovation, and medical technology innovation (King Saud University, 2023). However, Al-Zamil (2022) underlined that numerous organizational, material, and cultural prerequisites are necessary for managing innovation at Saudi universities.

Innovative work behavior has attracted the attention of several scholars' due to its dramatic influence on individuals' work performance (Janssen, 2000; De Jong & Den Hartog, 2008; Alghamdi, 2022; and Al-Zamil, 2022). Indeed, an essential strategy for entrepreneurial institutions is conducting various operations to recognize and value individuals' innovative behavior (Janssen, 2000; De Jong & Den Hartog, 2008). However, Al-Shamlan and Morsi (2023) highlighted the lack of previous studies in the Middle East that address innovative behavior in higher education. In particular, at higher education institutions, academic leadership is primarily responsible for the innovation and prosperity of the

institution, as innovative behavior requires qualified leadership for it to be developed and embedded among the organization's members.

Although earlier studies (Shamaa & Hamouda, 2023; Shafaei & Nejati, 2023; Al-Hassan, 2022; Alghamdi, 2022; Norena-Chavez & Thalassinos, 2022; Al-Mawadih, 2022; Lghaisem & Al-Zoubi, 2020; Adams et al., 2019) have examined strategic orientations, leadership passion, and innovative behavior, most of these studies focused on the correlations among these variables without considering the possibility of mediation, which could influence and direct these relationships. Additionally, the findings of previous studies (Abdelwahed et al., 2023; Shamaa & Hamouda, 2023; Zhang et al., 2023; Udin & Shaikh, 2022; Al-Hassan. 2022; Al-Mawadih; 2022; Alghamdi, 2022; Abdulrab et al., 2021; Lghaisem & Al-Zoubi, 2020; Krzakiewicz & Cyfert, 2019; Patel et al., 2015) differ regarding the direct impacts of strategic orientations and leadership passion on innovative behavior. The reason for this heterogeneity could be that these studies did not evaluate the interaction of these variables in terms of their impact on innovative behavior in a single model. Therefore, this study's research problem stems from the ambiguity regarding the impacts and interrelationships among strategic orientations, leadership passion, and innovative behavior.

Based on previous research results and the theoretical literature, this study seeks to develop a causal model that explains the relationships between the independent and dependent variables. This study builds a theoretical model that determines the path and direction of the direct and indirect relationships among the study variables to identify the optimal causal model. Figure 1 illustrates the theoretical model that conceptualizes the causal relationships among strategic orientations as an independent variable, leadership passion as a moderator variable, and innovative behavior as the dependent variable. Additionally, this figure clarifies the position of each variable in this system and the paths of influence among them to determine the outcome of those impacts on the innovative behavior of academic leaders, thus paving the way for controlling and modifying these variables through an integrated systemic approach.

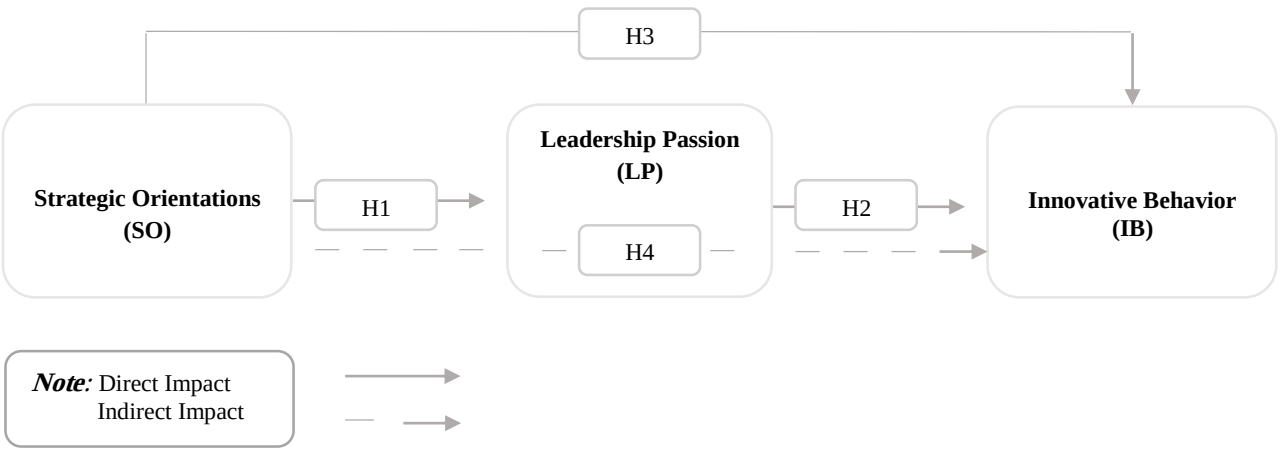

Figure 1. The Conceptual Model of Causal Relationships Among Strategic Orientations, Leadership Passion, and Innovative Behavior.

Therefore, the following questions are proposed in this study:

Main question: Does the proposed theoretical model of the causal relationships among strategic orientations, leadership passion, and innovative behavior correspond with the data obtained in the study?

Sub-questions:

RQ1: What is the level of strategic orientations of academic leaders at KSU?

RQ2: What is the level of leadership passion of academic leaders at KSU?

RQ3: What is the level of innovative behavior of academic leaders at KSU?

RQ4: Is there a direct statistically significant impact of the strategic orientations of academic leaders at KSU on leadership passion?

RQ5: Is there a direct statistically significant impact of the leadership passion of academic leaders at KSU on innovative behavior?

RQ6: Is there a direct statistically significant impact of the strategic orientations of academic leaders at KSU on innovative behavior?

RQ7: Is there an indirect statistically significant impact of the strategic orientations of academic leaders at KSU on innovative behavior through the mediating role of leadership passion?

The Study Hypotheses

H1: Higher strategic orientations of academic leaders may be related to higher levels of leadership passion.

H2: Higher leadership passion of academic leaders may be related to higher levels of innovative behavior.

H3: Higher strategic orientations of academic leaders may be related to higher levels of innovative behavior.

H4: Leadership passion may enhance the impact of the strategic orientations of academic leaders on their innovative behavior.

Study Significance

The current study's importance relates to the following scientific and practical considerations:

1. This study addresses innovative behavior, which has received significant attention from researchers for its role in promoting innovation in higher education institutions (Janssen, 2000; De Jong & Den Hartog, 2008; Alghamdi, 2022; and Al-Zamil, 2022).
2. The lack of previous studies focusing on innovative behavior at the Middle East universities (Al-Shamlan & Morsi, 2023).
3. The current study also investigates strategic orientations in relation to their role in contributing to the progress of higher education institutions and the

interest of universities in having strategic directions that keep pace with rapid changes (Belás et al., 2021; Krzakiewicz & Cyfert, 2019; Tutar et al., 2015).

4. The study also concentrates on the variable of leadership passion due to the lack of studies addressing this variable, especially in the Saudi university context.
5. The current study links the previous three variables into one model and identifies the optimal appropriate structural model demonstrating the relationships, overlapping impacts, and causal relations among strategic orientations, leadership passion, and innovative behavior.
6. The causal relationship model can be used to support academic leaders' innovative behavior in line with the strategic orientations of universities that seek to achieve a prestigious position.
7. This study coincides with the focus of Saudi Vision 2030 in terms of supporting innovation in all fields.
8. Due to the lack of studies in the Saudi context addressing the strategic orientations, leadership passion, and innovative behavior of academic leaders in a single correlative system, this study represents a key addition to the scientific literature. This work also paves the way for researchers to identify other variables predicting academic leaders' innovative behavior.
9. Finally, the current study gains its practical importance from the application environment of KSU, which is concerned with innovation and has a significant role in strengthening the national economy.

Study Delimitations:

1. The study develops a causal relationship model of the strategic orientations, leadership passion, and innovative behavior of academic leaders at King Saud University.
2. The study sample comprises academic leaders at King Saud University (dean, vice dean, department chair, vice department chair).
3. The study was conducted during the academic year 2023.

Study Terminology

Strategic Orientations

A strategic orientation can be defined as a set of strategic management principles that guide an organization's behaviors with the aim of improving its performance (Hakala, 2011). In this study, a strategic orientation is defined as a set of strategic approaches approved by King Saud University to achieve its strategic objectives, improve performance, and achieve a competitive advantage.

Leadership Passion

Leadership passion refers to the strong inclination of an individual to invest considerable time and energy in work-related activities that they like and consider essential (Vallerand et al., 2003). According to this study, leadership passion indicates academic leaders' positive orientations, enthusiasm, and commitment toward leadership work at King Saud University.

Innovative Behavior

Innovative behavior refers to deliberate creativity, presenting new ideas, and applying these ideas within the role of an individual, group, or organization (Janssen, 2000). Innovative behavior in this study is defined as the ability of academic leaders at KSU to create new ideas and perform work with innovative methods to achieve the best levels of performance.

Literature Review

Strategic Orientations (SO)

Strategic orientations are essential management concepts that guide an academic institution and determine its position toward continuous changes in the academic environment. Strategic orientations govern how organizations operate while carrying out their vision and achieving their ambitions and goals. Sahibzada Jawad et al. (2020) stated that organizations need strategic orientations to fulfill their business goals, increase productivity, improve or maintain performance, and foster profitability and growth. The literature proposes four significant dimensions of strategic orientations: entrepreneurial orientation, market orientation, technological orientation, and learning orientation (Belás et al., 2021; Krzakiewicz & Cyfert, 2019; Tutar et al., 2015). These four orientations influence how universities manage their strategies and choose activities to achieve different market, industry, and organization goals. In higher education, academic leaders adopt strategic directions to create a dynamic environment characterized by creativity, risk-taking for survival, and the ability to compete in a competitive environment. The four dimensions of entrepreneurial orientation are discussed in the following sections:

Entrepreneurial Orientation

Entrepreneurial orientation, as a dimension of strategic orientation, emphasizes how universities explore new opportunities and take calculated risks. Specifically, entrepreneurial orientation focuses on an organization's strategy-making practices, administrative philosophies, and entrepreneurial behaviors (Anderson et al., 2009). Universities must utilize innovation and creativity to recognize attractive opportunities in the markets. Hossain et al. (2022) identified three key elements of entrepreneurial orientation: proactivity, risk-taking, and innovation. Firstly, universities must be proactive in handling the risks and challenges they encounter. Indeed, being proactive allows an

organization to prevent risks from causing a crisis and excessive operational expenditures (Belás et al., 2021). Secondly, risk-taking is a fundamental feature of entrepreneurial orientation. Indeed, organizations must constantly investigate opportunities in the face of uncertainties, competition, changing customer habits, and other problems (Hakala, 2013). Finally. innovation is another aspect of entrepreneurial orientation, and it is highly important, since many organizations work in markets characterized by intensive competition (Prasetyo et al., 2021). Academic leaders must be innovative to establish an environment that encourages creativity for all students and employees (Krzakiewicz & Cyfert,2019). Due to their crucial leadership role, university academic leaders must continually create opportunities and proactively implement novel and beneficial activities for the educational environment. Leaders should be willing to address challenges before they arise or grow uncontrollable and costly. According to Hanaysha and Al-Shaikh (2022), entrepreneurship is related to high risk-taking, implying that leaders must detect, mitigate, and manage risk factors. Therefore, the courage to take risks distinguishes an entrepreneurial leader from an ordinary leader, as levels of entrepreneurship are associated with levels of risk-taking.

Market Orientation

Market orientation, which has recently received significant attention, is one of the most essential management themes. Specifically, market orientation relates to designing new products that resonate with customer needs and preferences (Kolbe et al., 2022). According to Mwenda (2020), organizations must strategically present their products in the market to attract consumers. Furthermore, organizations must have unique product marketing features to differentiate their brands and universities from competitors. Carvalho et al. (2021) highlighted that higher education institutions generally face intense competition, especially from institutions that offer the same programs and courses. Some universities have established reputations and positioned themselves as leaders in various sectors and competing with such institutions requires high levels of creativity and innovativeness. Consequently, academic leaders must be willing to design new programs and improve the existing ones to elevate the reputation of their universities (Carvalho et al., 2021). When designing curriculums and programs, academic leaders need to understand the needs of the students and the employers in the job market. Moreover, academic leaders must make institutions accessible and affordable to students from diverse backgrounds (Giuri et al., 2021). Unique achievements and adequate facilities can enable academic institutions to develop a unique identity that appeals to students. Notably, Grinstein (2008) argued that market orientation contributes more to business performance than alternative strategy orientations, including entrepreneurial and innovation orientations. However, organizations that combine market orientation with alternative orientations are more likely to outperform those that use only market orientation (Grinstein, 2008).

Technological Orientation

Technological orientation involves applying various talents, abilities, and technical resources to achieve multiple goals and maintain different strategies (Aloulou, 2019). Employees can use technological tools to assist them in reaching goals, including developing their skills, increasing productivity, streamlining processes, and developing new capabilities. According to Ulkhaq et al. (2018), creativity and innovation are some of the tools that businesses employ to achieve goals faster, at lower prices, and with greater ease. In the academic field, technology orientation is multidimensional and describes the capability of top management to take advantage of and support timely information on decision-making (Halac, 2015). Indeed, technology constitutes a vital tool for collecting, storing, distributing, retrieving, and sharing information (Saad Alessa, 2021). Academic leaders must encourage universities to invest in technological resources to facilitate fast, intense, and secure communication and networking between learners and educators. Technological resources can also help academic leaders link their universities with other institutions to create partnerships that promote efficiency and intellectual prominence (Giuri et al., 2021). Furthermore, academic leaders can use technological resources to maintain networks with parents, educationists, academicians, and other stakeholders outside the academic institutions. Finally, technology can be beneficial in securing academic institutions and surveying the surrounding environments.

Learning Orientation

Learning orientation is associated with developing and using knowledge within an organization (Krzakiewicz & Cyfert, 2019). Specifically, learning orientation also defines how organizations utilize information and knowledge to enhance performance and make necessary modifications. According to Calantone, Cavusgil, and Zhao (2012), organizations can collect and use data about their activities to assess their performance. Indeed, recorded data can enable organizations to appraise employees and teams. In other cases, organizations may offer training programs to their employees (Belás et al., 2021), or employees may share knowledge that enhances efficiency and builds performance. Based on a review of previous studies, Krzakiewicz and Cyfert (2019) reported four elements of learning orientation: commitment to learning, shared vision of organizational development, open-mindedness, and intra-organizational knowledge-sharing. Academic leaders manage intellectuals, who have different forms of knowledge and insights. Cahyono et al. (2023) argued that academic leaders must use events such as staff meetings, school assemblies, student rallies, and activity clubs to collect information that can strengthen the management of academic institutions. These academic leaders must also appraise educators and other staff to ensure optimal performance, and student reports and test scores should be used to measure their progress and assess the efficiency of different teaching techniques (Carvalho et al., 2021). Moreover, academic leaders should push for policies encouraging training and development among educators and other staff members.

Overall, strategic orientations are applicable in academic leadership. When managing academic institutions, academic leaders must seek creative ways of pursuing available opportunities and solving potential challenges. Academic leaders must also produce value for students and the staff whom they manage. Through the effective use of technological resources, academic leaders can promote interactions between different stakeholders within and outside the academic environment. Finally, academic leaders must collect data from the institutions and those under their leadership to facilitate assessments, knowledge-sharing, training, and development in relation to staff and other individuals.

Leadership Passion (LP)

Leading with passion has been recognized by many researchers as an essential feature of current leaders and a required element for successful institutions (Caldwell & Okpala, 2022). In particular, Murphy (2010) defined leadership passion as an enthusiastic energy that flows through individuals, not from them, as the passionate leader bravely faces fears and provides individuals with a sense of enthusiasm and achievement. Caldwell and Anderson (2020) defined leadership passion as a strong commitment, sense of urgency, desire, and enthusiasm toward achieving a specific goal or purpose. Caldwell and Okpala (2022) also defined leadership passion as the individual's urgent desire to achieve the desired goal through personal commitment to duties toward oneself and others to achieve excellence. According to the above definitions, leadership passion expresses academic leaders' positive orientations, enthusiasm, and commitment toward leadership work at their institutions.

Passionate leaders play a significant role in developing higher education institutions and maintaining their institutions' reputation and prestige. These leaders inspire the generation of innovative ideas and reach new areas. With the increasing demand for innovation and entrepreneurship in higher education institutions, academic leaders must be passionate about fostering development and change in their institutions. In higher education, academic leaders are primarily focused on administration tasks, such as supervising employees, faculty members, and students. These leaders also make critical decisions about the future of their universities (Toker, 2022). However, higher education institutions face numerous issues typically caused by unpredictable circumstances, which might have severe consequences if not addressed rapidly and wisely (Dumulescu & Muţiu, 2021). Therefore, leaders in higher education must dedicate themselves to making critical day-to-day decisions that will shape their institutions in response to sudden and urgent shifts in all academic issues. Additionally, academic leaders must possess leadership skills and entrepreneurial characteristics, motivation, proactiveness, innovation, and risk-taking, as these characteristics can assist them in making crucial decisions, such as decisions about which objectives to focus on and how to handle challenges (Baum et al., 2004).

In his book "Leading with Passion," Murphy (2010) provided a method for ensuring the success of organizations by mixing the 10 elements of leadership passion, including leading with purpose, vision, heart, attention, integration, discipline, generosity, credibility, grace, and spirit. Vallerand et al. (2003) presented the Dualistic Model of Passion (DMP) and divided passion into two types: harmonious passion (HP) and obsessive passion (OP). Specifically, HP is the individual's independence in selecting a favorite activity. Concurrently, OP is an activity that controls an individual's identity and creates internal pressure for the individual to choose a preferred activity. Ultimately, HP encourages healthy adaptation; however, OP discourages it by creating negative emotions and strict persistence (Vallerand et al., 2003). Caldwell and Okpala (2022) mentioned that many scholars have identified the elements of leadership passion, and they summarized the essential eight elements of leadership passion as moral responsibility, recognition of opportunity, commitment to excellence, bias for action, valuing others, constancy, perseverance, visionary perspective, and optimistic enthusiasm. However, other previous studies have discussed the dimensions of leadership passion from different perspectives, so there is no agreement on specific dimensions. For instance, some scholars divided leadership passion into ten dimensions (Murphy, 2010), others into eight dimensions (Caldwell and Okpala, 2022), and some into two parts (Vallerand et al., 2003). Additionally, some scholars adopted one dimension (Sigmundsson et al., 2020), which is employed in this study.

To effectively lead universities, leaders in higher education must endeavor to be successful communicators and show the characteristics of leadership passion. Specifically, practical communication skills are required for higher education leaders since they frequently engage with individuals either inside or outside their university. Similarly, possessing leadership passion is essential for academic leaders (Caldwell & Okpala, 2022) to generate innovative problem-solving solutions and avoid making incorrect decisions (Azzaakiyyah, 2023). Possessing characteristics of leadership passion also assists leaders in adopting and implementing new trends, particularly in the higher education sector, to achieve the desired success (Pollack et al., 2020). Al-Zoubi et al. (2023) indicated that passionate academic leaders are continuously concerned about making and developing internal and external relationships to achieve the desired excellence in educational administration. Leaders autonomously internalize their roles and prioritize assigned tasks and duties flexibly, resulting in greater task engagement (Vallerand et al., 2003). The task of leading higher education institutions demands leaders capable of innovating solutions for complicated issues and creating a comfortable environment that allows the requirements of all stakeholders to be fulfilled.

Passionate academic leaders are more likely to adopt new leadership styles to increase employees' job satisfaction. Indeed, they endeavor to perform their tasks with high professionalism and inspire subordinates to devote their time to

leading research on unresolved societal and educational issues. (Kasalak et al., 2022; Dinh et al., 2021; Che et al., 2009). Higher education institutions are unique because of their complexity and interaction with several stakeholders. Therefore, academic leaders in higher education typically adopt pragmatic administration strategies (Abdulla et al., 2023). Those in leadership positions acknowledge the requirement to develop core competencies in the academic sector by applying new leadership techniques that improve teaching, research, and community services.

Innovative Behavior (IB)

Innovative behavior is an essential characteristic that gives organizations a competitive advantage (Fateh et al.,2021). However, although creativity and innovation are often mentioned together, their relationship has not been addressed clearly. Reuvers et al. (2008) argued that creativity refers to the generation of ideas, while innovation is their implementation. Academic leaders are responsible for advancing innovation and enhancing the competitive position of their universities. Although they have a different operational model from managers in the corporate sector, Sauphayana (2021) noted that the management of professional systems is similar across all sectors where products and services are involved. Indeed, academic leaders require innovation to fulfill the goal of providing high-quality educational services. Lee et al. (2019) supported these arguments by stating that leaders shape critical aspects of resource allocation, the nature of tasks, and the working environment. Leaders must, therefore, provide appropriate conditions for innovation and creativity.

The innovative work behaviors of a leader reflect their leadership style and model. Several prominent leadership styles have been identified in modern organizations, such as innovation, entrepreneurial, and authentic leadership. Malibari and Bajaba (2022) stated that a new form of leadership model called entrepreneurial leadership is an effective strategy for cultivating innovative behaviors among subjects, and this was also confirmed by Alghamdi (2022), who stated that adopting entrepreneurial leadership positively impacts employees' innovative behavior. Entrepreneurial leadership differs from traditional leadership models because it emphasizes the behaviors and attributes a leader must possess. Reuvers et al. (2008) argued that innovation is rooted in the open-mindedness and flexibility of leaders. Academic leaders must exhibit three components of innovative behaviors, including the generation, promotion, and realization of ideas. Indeed, the necessity of innovative behavioral components aligns with the arguments by Rehbock (2020), who stated that leadership in academia is subject to developments such as heightened international competition and new public management frameworks. Therefore, academic leaders must develop and implement ideas to support adaptation to the new environment.

Research has confirmed the critical role of leaders in triggering innovation. De Jong and Den Hartog (2007) furthered this argument by noting that although innovation comprises initiation and implementation phases, the actions of the

leaders in both phases impact the willingness of their subjects to pursue innovative ideas. Moreover, studies on innovation have moved from the organizational level to the level of the individual. Indeed, according to Kleysen and Street (2001), these changes emanate from the realization that the individual traits, behaviors, and characteristics of the leader or the subject influence the overall innovation performance of the organization. Reviewing the previous literature on innovative behavior, there appears to be no agreement on the specific dimensions of innovative behavior. In this work, innovative behavior, especially at the individual level, is conceptualized in one dimension, as done in previous research (Reuvers et al., 2008; Janssen, 2000). In the academic context, the innovative behaviors and traits of the academic leader affect the willingness of their followers to be innovative. Kleysen and Street (2001) identified opportunity exploration, championing, generativity, and formative investigation as the primary innovative behaviors of leaders in modern organizations. Although their study was conducted with school principals, de Jong et al. (2020) added to this debate by highlighting the value of individual and collective commitment to innovation. The insights shared in this article can enhance the implementation of innovative work behaviors in higher education.

De Jong and Den Hartog (2008) confirmed that idea generation is not the only characteristic of innovative behavior; indeed, other behaviors are required for ideas to be implemented and for the necessary actions to be taken to increase innovative work behavior. For instance, academic leaders pursuing innovation must demand the performance of innovative work behaviors alongside routine work behaviors. Research has noted that although significant attention has been given to the performance of employees in terms of their prescribed routine behaviors, little recognition has been given to innovation (Janssen, 2000). Motivation strategies such as rewarding employees for exemplary performance in routine roles must also be applied to support their innovation. Shah et al. (2022) opposed the current approach to cultivating innovative work behaviors by stating that formalized procedures and prearranged behaviors have minimal impact on the innovative capabilities of organizations. Therefore, academic leaders must abandon their routine behaviors and adapt to the changes in the management of educational institutions in a rapidly changing environment. Faris Hussain et al. (2022) suggested that the leader's ability to create a supportive working environment is related to the cultivation of innovative behaviors among employees. Consequently, academic leaders must exhibit innovative behavior to drive their institutions to prosperity.

Methodology

The current study utilized a descriptive approach, as this approach fits with the nature of the problem and the variables addressed, which makes the use of a predictive correlational study design appropriate. Structural equation modeling (SEM) was performed in the AMOS program to investigate both the measurement

and structural models (Arbuckle, 2009). Data were then collected and analyzed to confirm the pre-specified relationships, thus yielding conclusions about the situation in reality and contributing to the development of future predictions and recommendations (Pearl, 2012).

Study Sample

The study population consisted of all the academic leaders at KSU during the academic year of 2023, including deans, vice deans, chairs, and vice chairs. The total number of leaders was 530, according to official statistics on the university's website. A stratified random sampling procedure was chosen to select the respondents. According to Thompson's (2012) equation for determining sample size, the appropriate sample size was 223. Participation in the study was voluntary; specifically, individuals could participate in the study using an electronic questionnaire distributed to the target sample via official e-mail after obtaining the necessary official approvals from KSU. The total number of participants in the study was 237 individuals, which is an appropriate number to achieve the purpose of the study. According to Thompson's (2012) equation, n: sample size, N: population size, d: error proportion (0.05), Z confidence level at 95% (1.96), P: the probability (0.5). Based on this equation, the appropriate sample size is 223 individuals. The percentage of male participants in the study was 57.8 %, while the percentage of females was 42.2 %. There were more male academic leaders (n = 137, 57.8%) compared to female academic leaders (n = 100, 42.2%) in the sample. The majority of the academic leaders were in the position of associate professor (n = 177, 74.7%), while those with full professor titles were in the minority (n = 23, 9.7%). Most of the academic leaders were aged 40–50 years old (n = 137, 57.8%) and had 5–10 years of leadership experience (n = 187, 78.9%).

Study Instrument

In the current study, a survey was developed to assess the four strategic orientations (SO) dimensions. Specifically, the questionnaire comprised 16 items covering the four dimensions: entrepreneurial orientation (4 items), market orientation (4 items), technological orientation (4 items), and learning orientation (4 items). These items were based on those utilized in previous studies focusing on SO (Krzakiewicz & Cyfert, 2019; Calantone et al., 2012; Hakala 2013; Sinkula et al., 2007). Additionally, a questionnaire was developed to measure leadership passion (LP) from the perspective of the academic leaders at KSU based on previous studies related to LP (Vallerand et al., 2003; Baum & Locke, 2004; Chen, Yao, & Kotha, 2009; Pollack, Ho, O'Boyle, & Kirkman, 2020). In this work, the LP questionnaire comprised seven items. Janssen's (2000) scale for innovative behavior was adopted to measure the level of innovative behavior (IB) from the perspective of academic leaders at KSU. A five-point Likert scale (1 = strongly disagree to 5 = strongly agree) was utilized to measure the study variables. All

scale responses were divided into three levels (low, moderate, and high), as presented in Table 1, to determine the level of each variable of the study and the arithmetic averages.

Table 1

Five-point Likert scale divided into three levels.

Scale	Interval	Estimation level
Five-point Likert scale	1.00 < 2.33	Low level
	2.33 < 3.66	Moderate level
	3.66–5	High level

Validity and Reliability

The face validity of the instruments was verified by presenting them to a group of specialists in educational leadership and educational administration and planning from Saudi universities and taking their observations. To examine the validity of the internal consistency of the instruments, a pilot study was conducted on a sample of 30 participants. The data from the pilot study were not included in the final study data. To assess the item validity, Pearson's correlation coefficients were calculated for each of the items in the pilot study within their dimension and for the total questionnaire scores within each dimension. As shown in Table 2, the correlation scores for strategic orientations items ranged from 0.598** to 0.893**, which were statistically significant ($p < 0.01$). The correlation coefficients for the total scores in each dimension ranged from 0.657** to 0.849**, which were also statistically significant ($p < 0.01$).

Table 2

Pearson's correlation coefficients for each item of strategic orientations with the total score of its dimension.

Dimension 1		**Dimension 2**		**Dimension 3**		**Dimension 4**	
N	R	N	R	N	R	N	R
1	0.678**	5	0.893**	9	0.658**	13	0.862**
2	0.851**	6	0.765**	10	0.703**	14	0.748**
3	0.598**	7	0.779**	11	0.684**	15	0.832**
4	0.857**	8	0.606**	12	0.890**	16	0.736**

Pearson's correlation coefficients for each strategic orientation item with the total score of the questionnaire.

Dimension 1		**Dimension 2**		**Dimension 3**		**Dimension 4**	
R	0.732**	R	0.849**	R	0.657**	R	0.816**

** *Correlation is significant at the p < 0.01 level (2-tailed).*

As shown in Table 3, all the correlation coefficients between the items for leadership passion and innovative behavior with the total score for each scale were statistically significant ($p < 0.01$), indicating that the instruments revealed a high degree of internal consistency.

Table 3

Pearson's correlation coefficients for each item of leadership passion and innovative behavior with the total scores on their respective scales (N = 30).

Variable	Correlation Coefficients for the Scale Items							
	1	2	3	4	5	6	7	8
Leadership Passion (LP)	.634**	.765**	.596**	.725**	.601**	.850**	.748**	
Innovative Behavior(IB)	.767**	.640**	.781**	.5603**	.674**	.836**	.759**	.683**

*** Correlation is significant at the p < 0.01 level (2-tailed).*

Cronbach's alpha was used to measure the internal consistency of the study instruments. The SO scale had a high Cronbach's alpha value of 0.762, and the four main dimensions within the scale showed acceptable reliabilities of 0.739, 0.699, 0.832, and 0.652, respectively. Similarly, the LP and IB instruments had high Cronbach's alpha values of 0.723 and 8.863, respectively, indicating that the study instruments were highly reliable and could be employed to achieve the study's objectives.

Results and Discussion

The primary purpose of this study was to develop a theoretical model to determine the path and direction of the direct and indirect relationships between the study variables, with the aim of ultimately obtaining the optimal causal model. In this study, it was hypothesized that leadership passion may mediate the relationship between strategic orientations and innovative behavior in academic leaders. In this section, the study findings are discussed in terms of three main aspects, including the levels of the study variables, the direct relationships among them, and the mediation relationship, which are as follows:

Firstly, this section discusses the results of the research questions related to measuring the level of the study variables (Q1, Q2, and Q3).

Table 4

The arithmetic means and standard deviations of the responses regarding the study variables, arranged in descending order according to the arithmetic mean (n = 237).

Variable	Dimension	Number of Items	Mean	Standard Deviation	Level (High, Moderate, Low)
Strategic Orientations (SO)	Entrepreneurial Orientation	4	3.90	0.59	High
	Market Orientation	4	3.95	0.54	High
	Technological Orientation	4	3.97	0.55	High
	Learning Orientation	4	4.01	0.70	High
	Total	16	4.01	0.60	High
Leadership Passion (LP)		7	3.91	0.60	High
Innovative Behavior (IB)		8	4.10	0.70	High

According to Table 4, overall, the results demonstrate a high level of strategic orientations, leadership passion, and innovative behavior among academic leaders at KSU. Indeed, the high levels of these traits at KSU may be related to the fact that KSU has a distinguished position among Saudi universities, as KSU was the first Saudi university to be converted into an independent non-profit institution. These results reflect the reality that academic leaders at KSU have a clear strategic orientation in relation to the university's strategic plan.

In particular, the mean value for strategic orientation was 4.01 (SD = 0.60), which is ranked as "high." This result demonstrates a high level of strategic orientations among academic leaders at KSU. Additionally, the scores on all four dimensions of strategic orientations were high. For example, the score for learning orientation was 4.01 (SD = 0.70), for technology orientation was 3.97 (SD = 0.55), for market orientation was 3.95 (SD = 0.54), and for entrepreneurial orientation was 3.90 (SD = 0.59). This high degree of strategic orientations highlights that the university's academic leaders have a clear aim to invest in learning and are open to new ideas in relation to technology. These results also indicate that the university and its leaders understand the significance of beneficiary satisfaction and, thus, aim to create new services that exceed their expectations. In addition, these university leaders are innovative and seek to take advantage of all new opportunities in the market. These findings correspond with those of Al-Hassan (2022), who found that the employees of Al-Wataniya Private University had a high degree of strategic orientations, as well as Al-Mawadih (2022), who found that the level of strategic orientation implementation was high at Jordanian public universities.

As shown in Table 4, the mean score for leadership passion was high, at 3.91 (SD = 0.60). This result implies that there is a high level of leadership passion among the academic leaders at KSU. Importantly, leaders who have leadership passion may have a greater ability to perform innovatively in the work environment. Indeed, Patel et al. (2015) suggested that leadership passion may explain why certain project leaders who receive government funding succeed in creating jobs while others cannot, and the high level of leadership passion among KSU leaders reflects the achievements of the university and its leadership in terms of strategic orientations and innovation. Maintaining its distinguished and internationally qualified leaders and experts is part of KSU's strategic plan (KSU2030, 2023), which makes KSU an attractive place for leadership work. Moreover, this strategy makes KSU a digital university that will be able to achieve global leadership in producing and generating knowledge over the next 20 years (KSU2030, 2023).

Further to leadership passion, the mean score for innovative behavior was 4.10 (SD = 0.70), implying that there is a high level of innovative behavior among academic leaders at KSU. This result can be attributed to the significance of the current time for KSU; indeed, KSU was transformed into an independent in 2022, non-profit academic institution to fulfill the objectives of the Saudi Vision 2030

for it to be among the top ten universities in the world. Furthermore, academic leaders are becoming more aware of the significance of the current moment in the university's history and the trend toward innovating and diversifying its strategies and financial resources. The high score for innovative behavior obtained in this study reflects the fact that the leaders have high strategic orientations and leadership passion. The finding is in accordance with Alghamdi (2022), who found that high levels of innovative work behavior traits among faculty members at Al-Baha University. Notably, the level of innovative behavior in institutions is affected by many other variables, as highlighted by Shafaei and Nejati (2023), who suggested that the levels of innovative behavior among employees are associated with green human resource management.

Secondly, this section discusses the results of the research questions related to the direct impact relationships among the study variables (Q4, Q5, and Q6):

The study hypotheses (H1, H2, and H3) regarding the direct impact relationships in the study model were tested to address these research questions.

H1: **Higher strategic orientations of academic leaders may be related to higher levels of leadership passion.**

Table 5

Results of a simple linear regression analysis of the impact of the strategic orientations of academic leaders on leadership passion (n = 237).

	Model		ANOVA			Coefficients		
	R	R2	DF	F	Sig.*	β	T	Sig.*
Leadership Passion	0.645	0.416	1	167.21	.000	0.641	12.931	.000

*Note. *p < 0.05*

From Table 5 above, the model is a good fit for the data, as indicated by the significant results ($F = 167.21$, $p < 0.001$). The R^2 value was 0.416, implying that 41.6% of the variation in leadership passion could be explained by strategic orientations. Moreover, the regression coefficient of strategic orientations was statistically significant ($\beta = 0.641$, $p < 0.001$). The results indicate that a unit increase in strategic orientations leads to a 0.641 increase in leadership passion, thus implying that an increase in strategic orientations for academic leaders at KSU increases their levels of leadership passion. This finding agrees with that of Dong and Zhong (2021), who found that strategic directions directly and positively influence leadership passion. Moreover, Al-Hassan (2022) reported a

significant and positive impact between strategic orientations and its dimensions and organizational ingenuity. Al-Mawadih (2022) also concluded that strategic orientations have a significant impact on achieving a competitive advantage at Jordanian public universities. Finally, Lghaisem and Al-Zoubi (2020) reported that strategic direction and its dimensions impact competitive advantage in the universities of the eastern region in the Kingdom of Saudi Arabia.

H2: **Higher leadership passion of academic leaders may be related to higher levels of innovative behavior.**

Table 6

Results of a simple linear regression analysis of the impact of the leadership passion of academic leaders on innovative behavior (n = 237).

	Model		ANOVA			Coefficients		
	R	R2	DF	F	Sig.*	β	T	Sig.*
Innovative Behavior	0.467	0.218	1	65.49	.000	0.548	8.092	.000

*Note. *=p < 0.05*

As shown in Table 6, the regression results were statistically significant (F = 65.49, p = 0.001), indicating that the model was a good fit for the data. The R^2 value was 0.218, implying that 21.8% of the variation in innovative behavior could be explained by leadership passion. The beta coefficient of leadership passion was statistically significant (β = 0.548, p < 0.001), and this result indicates that a unit increase in leadership passion leads to a 0.548 increase in innovative behavior. Therefore, an increase in leadership passion for academic leaders at KSU increases their levels of innovative behavior. Based on the results, it seems that higher levels of leadership passion lead to higher levels of innovative behavior (Chen et al., 2022). These findings are in agreement with those of Abdelwahed et al. (2023), who found that an entrepreneur's passion impacts employee performance, as well as Norena-Chavez and Thalassinos (2022), who reported that entrepreneurial passion has a positive impact on entrepreneurial self-efficacy. Overall, leadership passion is an important characteristic of leaders in terms of their contributions to the success of their organizations (Patel et al., 2015).

H3: **Higher strategic orientations of academic leaders may be related to higher levels of innovative behavior.**

Table 7

Results of a simple linear regression analysis of the impact of the strategic orientations of academic leaders on innovative behavior (n = 237).

	Model		ANOVA			Coefficients		
	R	R2	DF	F	Sig.*	β	T	Sig.*

Innovative Behavior	0.876	0.768	1	778.20	.000	1.023	27.896	.000

Note. *=$p < 0.05$

As shown in Table 7, the regression results were statistically significant ($F = 778.20$, $p < 0.001$), indicating that the derived model provides a good fit for the data. The R^2 value was 0.768, suggesting that strategic orientations could explain 76.8% of the variation in innovative behavior. Furthermore, the beta coefficient of strategic orientations was statistically significant ($\beta = 1.023$, $p < 0.001$), with the results showing that a unit increase in strategic orientations leads to a 1.023 increase in innovative behavior. This finding implies that an increase in the strategic orientations of academic leaders at KSU significantly increases their levels of innovative behavior. Furthermore, the results show that higher strategic orientations of academic leaders are associated with higher levels of innovative behavior (Cheong et al., 2019; Gao & Jiang, 2019). This finding agrees with that of Alghamdi (2022), who reported a positive impact of entrepreneurial leadership style on innovative work behavior. However, the identified relationship differs from the results of Udin and Shaikh (2022), who reported that transformational leadership did not directly impact innovative work behavior.

Thirdly, this section discusses the results of the research question related to the mediating effects (direct and indirect impacts) of the study variables (Q7):

The study hypothesis (H4) regarding the indirect relationships in the study model was tested to address this research question.

***H4:* Leadership passion may enhance the impact of the strategic orientations of academic leaders on their innovative behavior.**

Specifically, path analysis was employed to assess the direct and indirect impacts.

Table 8

Results of the path analysis of the direct and indirect relationships in the study model (n = 237).

Effect Type	Paths Effects			Impact Coefficient	CR	Sig
Direct	IB	< ---	LP	-0.20	-4.25	***
	IB	< ---	SO	1.15	24.92	***
	LP	< ---	SO	0.64	12.96	***
Indirect	IB	< ---	SO	-0.13	-4.05	***

Notes. CR = critical ratio; ***$p < 0.01$, *$p < 0.05$

As shown in Table 8, the path coefficient of the relationship between leadership passion and innovative behavior was significant ($\beta = -0.20$, $p < 0.001$). Similarly, the path coefficient of the relationship between strategic orientations and leadership passion was significant ($\beta = 0.64$, $p < 0.001$). Meanwhile, the direct effect of strategic orientations on innovative behavior was both positive and

significant ($\beta = 1.15$, $p < 0.001$). When including leadership passion as a mediator, the indirect effect of strategic orientations on innovative behavior was also statistically significant ($\beta = -0.13$, $p < 0.001$). The results show that strategic orientations have a significant direct impact on both leadership passion and innovative behavior, while leadership passion has a significant direct effect on innovative behavior. As shown in Figure 2, the path analysis results indicate that leadership passion mediates the relationship between strategic orientations and innovative behavior among academic leaders at KSU.

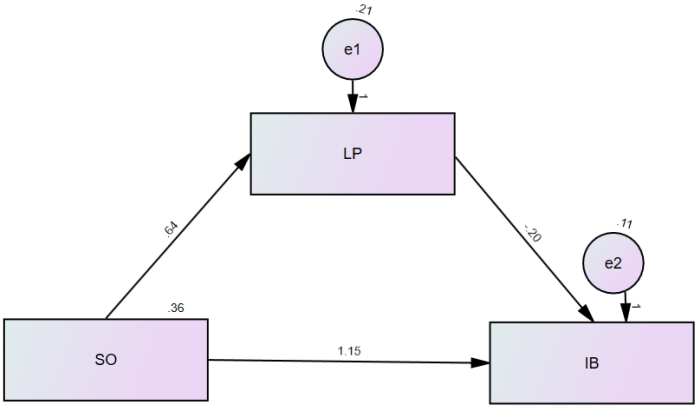

Figure 2. Path analysis diagram

Based on the fit values (NFI = 1.000; RMSEA = 0.000; GFI = 1.000, and CFI= 1.000), there were no statistically significant differences between the suggested and optimal causal relationship models, as shown in Table 9. Accordingly, the model with the proposed relationships represents the optimal causal relationship model for the study variables.

Table 9

Quality indicators of conformity to the study model.

CFI	NFI	GFI	RMSEA	CMIN/DF	DF	CHI-SQUARE
1.000	1.000	1.000	0.000	-	0	0.000

The outcomes of the current study revealed a significant positive linear relationship between leadership passion and innovative behavior. The results are consistent with those of Udin and Shaikh (2022), who found that work passion positively and significantly impacted innovative work behavior. Additionally, the study findings are in line with those of Jun and Lee (2023), who reported that transformational leadership involves both passion and commitment to change and significantly influences innovative behavior, as well as that individuals with leadership passion show enhanced creativity and other transformational outcomes required for innovative behavior. The linear relationship between leadership passion and innovative behavior identified in this study is also in line with the outcomes of Wang et al. (2020) and Jing et al. (2022), which showed that leadership passion is strongly associated with the leader's psychological capital

and tends to promote innovative behavior in employees. Indeed, leadership passion increases psychological safety, allowing employees to follow a creative path, encouraged by organizational leadership (Smith et al., 2023; Ye et al., 2021). Moreover, Zhang et al. (2023) concluded that harmonious passion is positively related to employees' innovative behavior, while obsessive passion is negatively related to innovative behavior. Universities can derive competitive advantages and quickly adapt to environmental changes when academic leaders encourage innovative behavior in their employees. Indeed, passionate leaders support the acceptance and implementation of new methods, particularly in higher education institutions, to achieve desired success (Pollack et al., 2020). Therefore, leading with passion is a crucial characteristic of today's leaders and is necessary for successful institutions (Caldwell & Okpala, 2022).

Further to this relationship, the study results highlighted a positive association between strategic orientation and leadership passion. These results are consistent with the findings of Wang (2022), which suggested that strategic orientation improves organizational performance and digitization by enhancing employee capabilities and innovation. According to Breu and Yasseri (2022), strategic orientation encourages employees to be passionate about adopting new technologies and acquiring digital knowledge. In this study, leadership passion was found to mediate the impact of strategic orientations on innovative behavior for academic leaders at KSU, concordant with previous studies (Abdelwahed et al. 2023; Udin, 2022; and Park et al.,2021) showing that entrepreneurial passion plays a mediating role in the relationship between knowledge sharing and strategy and innovative behavior. Udin and Shaikh (2022) reported that work passion mediates the connection between transformational leadership and innovative behavior.

Overall, higher education institutions achieve competitive advantages by improving the skills, abilities, and knowledge base of their employees (Feng & Chen, 2020; Ho & Astakhova, 2020). Since employees often lack opportunities and knowledge to utilize their innovations, an organizational platform that encourages innovative work behavior can easily achieve a competitive advantage (Alghamdi, 2022; Cui et al., 2019; Lee et al., 2019). The results of this study are consistent with the findings of Chang (2019), who concluded that motivated employees work hard to reinforce organizational innovation. The study showed that employees with obsessive job passion have more innovative behavior at work (Chang, 2019). They also have the cognitive absorption and self-esteem required to show high performance and engage in innovative behaviors that are appreciated by their supervisors. According to Chang (2019), harmonious passion drives innovation and promotes research and development.

Conclusion and Recommendations

The analysis of the study variables, strategic orientations, leadership passion, and innovative behavior revealed high evaluation levels among the academic leaders at KSU. The strategic directions of academic leaders directly

and positively influence innovative behavior and leadership passion. The positive relationship between leadership passion and innovative behavior indicates that higher levels of leadership passion lead to higher levels of innovative behavior. The study's results revealed that leadership passion partially mediates the relationship between strategic orientations and innovative behavior among academic leaders at KSU. The findings also demonstrate no statistically significant differences between the suggested and the optimal causal relationship model due to high matches on the path analysis parameters. In light of the study's findings, the following recommendations were provided:

1. Saudi universities should inculcate strategic orientations and leadership passion within academic leaders to achieve a long-range vision of creative and innovative employees.
2. Saudi universities must prepare training programs to inform academic leaders of the significance of strategic orientations and to acquire the required skills through making well-studied strategic plans.
3. Emphasis on the importance of leadership passion and its essential role in promoting innovative behavior among academic leaders at Saudi universities.
4. Promote the innovative behavior of academic leaders at Saudi universities by building an innovative environment in the academic set that supports calculated risk-taking and encourages leaders to take the initiative.
5. Conduct more studies that adopt the path analysis method to determine the direct and indirect association between strategic orientations and other variables, such as leadership styles, leadership competencies, organizational ambidexterity, organizational justice, and other mediating variables.

References

Abdelwahed, N. A. A., Soomro, B. A., & Shah, N. (2023). Predicting employee performance through transactional leadership and entrepreneur's passion among the employees of Pakistan. Asia Pacific Management Review, 28(1), 60-68.

Abdulla, A., Fenech, R., Kinsella, K., Hiasat, L., Chakravarti, S., White, T., & Rajan, P. B. (2023). Leadership development in academia in the UAE: Creating a community of learning. *Journal of Higher Education Policy and Management*, *45*(1), 96-112. https://doi.org/10.1080/1360080X.2022.2116667

Abdulrab, M., Al-Mamary, Y. H. S., Alwaheeb, M. A., Alshammari, N. G. M., Balhareth, H., & Al-Shammari, S. A. (2021). Mediating role of strategic orientations in the relationship between entrepreneurial orientation and performance of Saudi SMEs. *Brazilian Journal of Operations & Production Management, 18*(4), 1-15.

Adams, P., Freitas, I.M.B. and Fontana, R. (2019), "Strategic orientation, innovation performance and the moderating influence of marketing management", *Journal of Business Research*, 97, 129-40.

Al Ahmari, A. M. (2022). Strategic vigilance among academic leaders at Saudi universities from the perspective of faculty members. *Journal of Scientific Research in Education -Ain-shams university, 23* (9), 1-40.

Al-Hassan, Q. H, (2022). The Impact of strategic orientation on achieving organizational ingenuity- a case study of Al-Wataniya private university in Hama governorate, *Al-Baath University Journal for Scientific Research, 44* (28), 117-160.

Al-Issa, G. &Al-Shehri. (2020). The strategic leadership of the academic leaders at king Saud university and its enhancement means. *Arab Journal of Management, 40*(1), 201-214.

Al-Mawadih, S. F, (2022). The impact of strategic orientation on achieving competitive advantage: a field study at Jordanian public universities. *Mutah for Research and Studies - Humanities and Social Sciences Series*, *37*, (4), 209–246.

Al-Qarni, H. M. (2021). A proposal for activating the role of academic leaders in the development of human resources at Saudi Universities. *Journal of the Faculty of Education, Assiut University, 37*(7), 167-200.

Al-Rabghi, R., & Mugled, R. (2021). The efforts of the Saudi Ministry of Education to support innovation, creativity and entrepreneurship in

university education through the research and innovation system in light of Vision 2030. *International Journal of Research and Studies Publishing*, 3, 224- 249.

Al-Shamlan, K., & Morsi, M. (2023). The relationship between empowering leadership and innovative work behavior: a field study on king Abdul-Aziz city for science and technology (KACST). *Journal of Public Administration, 63* (4), 685- 749.

Al-Zamil, A. (2022). Requirements for innovation management in Saudi universities. *Journal of Arts Literature Humanities and Social Sciences*, 85, 112- 135.

Al-Zoubi, Z. H., Issa, H. M. B., & Musallam, F. Y. (2023). The Degree of Practicing Creative Leadership by Academic Leaders at Jordanian Universities and Its Relationship to the Level of Teaching Performance. *Education Sciences*, *13*(2), 163.

Alghamdi, O. S. (2022). The impact of entrepreneurial leadership on innovative work behavior of faculty members. *King Khalid University Journal of Educational Sciences*, 9(1), 228-260.

Alhasani, A. H., & Alkshali, S. J. (2021). The impact of organizational support on strategic vigilance in ministry of civil service in Sultanate Oman. *International Journal of Academic Research in Business and Social Science, 11*(5), 669-683.

Aloulou, W. J. (2019). Impacts of strategic orientations on new product development and firm performances: Insights from Saudi industrial firms. *European Journal of Innovation Management*, *22*(2), 257-280. https://doi.org/10.1108/EJIM-05-2018-0092

Amin, H. B., & Viola, T. M. (2022). The role of strategic leadership in facing crises. *Moasher Journal for Exploratory Studies, 2*(6), 247-265.

Anderson, B. S., Covin, J. G., & Slevin, D. P. (2009). Understanding the relationship between entrepreneurial orientation and strategic learning capability: an empirical investigation. *Strategic Entrepreneurship Journal, 3*(3), 218-240.

Arbuckle, J. (2009). Amos 18 user's guide. Illinois: SPSS Inc.

Azzaakiyyah, H. K. (2023). An Entrepreneur's Character from Professor Musa Asy'arie's Perspective. Apollo: *Journal of Tourism and Business, 1*(1), 6-13.

Balodi, K. C. (2014). Strategic orientation and organizational forms: an integrative framework. *European Business Review, 26* (2), 188-203.

Baum, J. R., & Locke, E. A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, *89*(4), 587–598. https://doi.org/10.1037/0021-9010.89.4.587

Belás, J., Damborský, M., Metzker, Z., & Šuleř, P. (2021). Perception of selected strategic management factors of SME in V4 countries. *Serbian Journal of Management*, *16*(2). https://scindeks.ceon.rs/Article.aspx?artid=1452-48642102437B

Breu, A. & Yasseri, T. (2022). What drives passion? An empirical examination on the impact of personality trait interactions and job environments on work passion. *Current Psychology*, 1-18.

Cahyono, A. S., Tuhuteru, L., Julina, S., Suherlan, S., & Ausat, A. M. A. (2023). Building a Generation of Qualified Leaders: Leadership Education Strategies in Schools. *Journal on Education*, *5*(4), 12974-12979. https://www.jonedu.org/index.php/joe/article/view/2289

Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm Innovation Capability, and firm performance. *Industrial Marketing Management*, *31*(6), 515–524. https://doi.org/10.1016/s0019-8501(01)00203-6

Calantone, R. J., Cavusgil, S. T., Zhao Y. (2012). Learning Orientation, Firm Innovation Capability and Firm Performance. *Industrial Marketing Management*, *31*(6), 515 – 524. https://www.sciencedirect.com/science/article/abs/pii/S0019850101002036

Caldwell, C., & Okpala, O. (2022). Leading with passion – what it means, why it matters. *The Journal of Values-Based Leadership,* 15(2), 1-10.

Carvalho, M., Cabral, I., Verdasca, J. L., & Alves, J. M. (2021). Strategy and strategic leadership in education: A scoping review. In *Frontiers in Education* (p. 407). Frontiers. https://doi.org/10.3389/feduc.2021.706608

Chang, H-T., Chen, T-Y., Hsu, I-C., Miao, M-C., & Hsu, J-Y. (2019). The influence of R&D person's passion type on innovation behavior: The mediating effects of positive and negative moods. *Journal of Administrative and Business Studies*, *5*(4), 244-259.

Cheluget, M., & Koech, C. J. (2018). The Link between Analysis Dimension of Strategic Orientation and Firm Performance in Small and Medium Enterprises in the Hospitality Industry in Kenya: The Moderating Role of Top Manager's Ownership Status. International Journal of Advances in Agriculture Sciences. *International Journal of Advances in Management and Economics*, *7*(4): 20-33, https://doi.org/10.31270/ijame/07/04/2018/03.

Chen, X.-P., Yao, X., & Kotha, S. (2009). Entrepreneur passion and preparedness in business plan presentations: A persuasion analysis of Venture Capitalists' funding decisions. *Academy of Management Journal*, *52*(1), 199–214. https://doi.org/10.5465/amj.2009.36462018

Chen, X., Yin, M., & Yang, B. (2022). The influence of the matching of leader's authorization behavior and employee's authorization expectation on employee's active behavior: Based on the theory of personal-environmental matching. *Journal of Human Resource and Sustainability Studies*, *10*, 824-845.

Cheong, M., Yammarino, F. J., Dionne, S. D., Spain, S. M., & Tsai, C. Y. (2019). A review of effectiveness of empowering leadership. *The Leadership Quarterly*, *30*(1), 34-58.

Choi, WS., Kang, SW., & Choi, SB. (2021). Innovative Behavior in the Workplace: An Empirical Study of Moderated Mediation Model of Self-Efficacy, Perceived Organizational Support, and Leader–Member Exchange. *Behav Sci (Basel)*. 2021 Dec 16;11(12):182. doi: 10.3390/bs11120182.

Cui, M., Xiao, M., & Wang, S. J. (2019). Meta-analysis of organizational innovation climate research. *Nankai Business Review*, *1*, 98-110.

De Jong, J. P. J., & Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, *10*(1), 41–64. https://doi.org/10.1108/14601060710720546

De Jong, J. P., & Den Hartog, D. N. (2008). Innovative work behavior: Measurement and validation. *EIM Business and Policy Research, 8*(1), 1-27.

De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behaviour. *Creativity and innovation management*, *19*(1), 23-36

De Jong, W., Lockhorst, D., de Kleijn, R., Noordegraaf, M., & van Tartwijk, J. (2020). Leadership practices in collaborative innovation: A study among Dutch school principals. *Educational Management Administration & Leadership*, *50*(6), 928–944. https://doi.org/10.1177/1741143220962098

Dinh, N. B. K., Caliskan, A., & Zhu, C. (2021). Academic leadership: Perceptions of academic leaders and staff in diverse contexts. *Educational Management Administration & Leadership*, *49*(6), 996-1016. https://doi.org/10.1177/174114322092119

Dong, W. & Zhong, L. (2021). Responsible leadership fuels innovative behavior: The mediating roles of socially responsible human resource management and organizational pride. *Frontiers in Psychology*, *12*, 787833.

Dumulescu, D., & Muţiu, A. I. (2021). Academic leadership in the time of COVID-19—Experiences and perspectives. *Frontiers in Psychology*, *12*, 648344. https://doi.org/10.3389/fpsyg.2021.648344

Faris Hussain, M., Hanifah, H., Vafaei-Zadeh, A., & Abdul Halim, H. (2022). Determinants of innovative work behavior and job performance: Moderating role of knowledge sharing. *International Journal of Innovation and Technology Management*, *20*(01).

Fateh, A., Mustamil, N., & Shahzad, F. (2021). Role of authentic leadership and personal mastery in predicting employee creative behavior: A self-determination perspective. *Frontiers of Business Research in China*, *15*(1). https://doi.org/10.1186/s11782-021-00100-1

Feng, B. & Chen, M. (2020). The impact of entrepreneurial passion on psychology and behavior of entrepreneurs. *Frontiers in Psychology*, *11*, 1733.

Gao, A. & Jiang, J. (2019). Perceived empowering leadership, harmonious passion, and employee voice: The moderating role of job autonomy. *Frontiers in Psychology*, *10*, 1484.

Giuri, P., Munari, F., Scandura, A., & Toschi, L. (2019). The strategic orientation of universities in knowledge transfer activities. *Technological Forecasting and Social Change*, *138*, 261-278. https://doi.org/10.1016/j.techfore.2018.09.030

Grinstein, A. (2008). The relationships between market orientation and alternative strategic orientations: A meta-analysis. *European journal of marketing*, *42*(1/2), 115-134.

Hakala, H. (2011). Strategic orientations in management literature: Three approaches to understanding the interaction between market, technology, entrepreneurial and learning orientations. *International Journal of Management Reviews*, *13*(2), 199-217.

Hakala, H. (2013). Entrepreneurial and learning orientation: effects on growth and profitability in the software sector. *Baltic Journal of Management. 8* (1),102-118.

Halac, D. S. (2015). Multidimensional construct of technology orientation. *Procedia-Social and Behavioral Sciences*, *195*, 1057-1065.

Hanaysha, J. R., & Al-Shaikh, M. E. (2022). An Examination of Entrepreneurial Marketing Dimensions and Firm Performance in Small and Medium Enterprises. *Sustainability*, *14*(18), 11444.

Ho, V. & Astakhova, M. (2020). The passion bug: How and when do leaders inspire work passion? *Journal of Organizational Behavior*, *41*(5), 424-444.

Hossain, K., Soon Lee, K. C., Abdul Ghani Azmi, I. B., Idris, A. B., Alam, M. N., Rahman, M. A., & Mohd Ali, N. (2022). Impact of innovativeness, risk-taking, and proactiveness on export performance in a developing country: evidence of qualitative study. *RAUSP Management Journal*, *57*, 165-181.

Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, *73*(3), 287–302.

Jing, J., Wang, S., Yang, J. & Ding, T. (2022). The influence of empowering team leadership on employee's innovation passion in high-tech enterprises. *Frontiers in Psychology*, *13*, 928991.

Jun, K. & Lee, J. (2023). Transformational leadership and follower's behavior: Roles of commitment to change and organizational support for creativity. *Behavioral Sciences*, *13*(4), 320.

Kamran, S. N., & Ganjinia, H. (2017). Innovative behavior and factors affecting it: the importance of innovative behavior and its dimensions. *International Journal of Business*, *2*(1), 31-34.

Kasalak, G., Güneri, B., Ehtiyar, V. R., Apaydin, Ç., & Türker, G. Ö. (2022). The relation between leadership styles in higher education institutions and academic staff's job satisfaction: A meta-analysis study. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.1038824

King Saud University, (2023). Innovation Centre. https://innovation.ksu.edu.sa/ar.

King Saud University. (2023). Strategic plan 2030 (KSU2030). https://dqd.ksu.edu.sa/ar/node/1138

Kleysen, R. F., & Street, C. T. (2001). Toward a multi-dimensional measure of individual innovative behavior. *Journal of Intellectual Capital*, *2*(3), 284–296.

Kolbe, D., Frasquet, M., & Calderon, H. (2022). The role of market orientation and innovation capability in export performance of small-and medium-sized enterprises: a Latin American perspective. *Multinational Business Review*, *30*(2), 289-312. https://doi.org/10.1108/MBR-10-2020-0202

Krier, L. (2022). A framework for shared leadership: A perspective on strategic planning for Academic Libraries. *The Journal of Academic Librarianship*, *48*(6), 102503. https://doi.org/10.1016/j.acalib.2022.102503

Krzakiewicz, K., & Cyfert, S. (2019). Strategic orientations of the organization - entrepreneurial, market and organizational learning. *Management*, *23*(1), 7–19.

Lee, A., Legood, A., Hughes, D., Tian, A. W., Newman, A., & Knight, C. (2019). Leadership, creativity and innovation: A meta-analytic review. *European Journal of Work and Organizational Psychology*, *29*(1), 1–35.

Lghaisem, S.A, & Al-Zoubi, K.U. (2020). The impact of strategic orientation on achieving competitive advantage, the mediating role of entrepreneurship strategies (a field study of the universities of the eastern region in the Kingdom of Saudi Arabia). Commercial Research Journal, Zagazig University, 42(2), 203-247.

Malibari, M. A., & Bajaba, S. (2022). Entrepreneurial leadership and employees' innovative behavior: A sequential mediation analysis of innovation climate and employees' intellectual agility. *Journal of Innovation & Knowledge*, *7*(4), 100255. https://doi.org/10.1016/j.jik.2022.100255

Miwan, S. Q., & Naji, A. M. (2023). The role of conscious leadership in enhancing strategic prowess an exploratory study of the opinions of a sample of academic leaders at the University of Kirkuk. *Journal of Business Economics for Applied* Research, 4(2).29-42.

Mwenda, G. (2020). Strategic orientation and organization growth: A review. *International Academic Journal of Human Resource and Business Administration*, *3*(8), 133-142.

Norena-Chavez, D., & Thalassinos, E. (2022). The mediation effect of entrepreneurial self-efficacy in the relationship between entrepreneurial passion and leadership styles. *In the New Digital Era: Other Emerging Risks and Opportunities*, *109*, 99-125. Emerald Publishing Limited.

Park, N., Jang, W., Thomas, E., & Smith, J. (2021). How to organize creative and innovative teams: creative self-efficacy and innovative team performance. *Creativity Research Journal*, 33(2), 168-179.

Patel, P. C., Thorgren, S., & Wincent, J. (2015). Leadership, Passion and Performance: A Study of Job Creation Projects during the Recession. *British Journal of Management*, *26*(2), 211–224.

Pearl, J. (2012). The causal foundations of structural equation modeling. *Handbook of structural equation modeling*, 68-91.

Pollack, J. M., Ho, V. T., O'Boyle, E. H., & Kirkman, B. L. (2020). Passion at work: A meta-analysis of individual work outcomes. *Journal of Organizational Behavior*, *41*(4), 311–331.

Prasetyo, I., Endarti, E. W., Endarto, B., Aliyyah, N., Rusdiyanto, R., Suprapti, S., & Al-asqolaini, M. Z. (2021). Performance is affected by leadership and work culture: A case study from Indonesia. *Academy of Strategic Management Journal (ASMJ)*, *20*(2), 1-14.

Rehbock, S. K. (2020). Academic leadership: Challenges and opportunities for leaders and leadership development in higher education. *Modern Day Challenges in Academia*, 252–264.

Reuvers, M., van Engen, M. L., Vinkenburg, C. J., & Wilson-Evered, E. (2008). Transformational leadership and innovative work behaviour: Exploring the relevance of gender differences. *Creativity and Innovation Management*, *17*(3), 227–244. https://doi.org/10.1111/j.1467-8691.2008.00487.x

Saad Alessa, G. (2021). The dimensions of transformational leadership and its organizational effects in public universities in Saudi Arabia: A systematic review. *Frontiers in psychology*, *12*, 682092. https://doi.org/10.3389/fpsyg.2021.682092

Sahibzada Jawad, S. U. R., Naushad, S., Yousaf, S., & Yousaf, Z. (2020). Exploring performance of software houses: Market orientation and mediating role of firm innovativeness. *World Journal of Entrepreneurship, Management and Sustainable Development*, *16*(1), 1-11. https://doi.org/10.1108/WJEMSD-05-2019-0033

Saudi Press Agency, (2023). General / The Kingdom jumped 15 places in the Global Innovation Index less than a year after announcing its national priorities in research and development. https://www.spa.gov.sa/w1870607.

Sauphayana, S. (2021). Innovation in higher education management and leadership. *Journal of Educational and Social Research*, *11*(6), 163. https://doi.org/10.36941/jesr-2021-0137

Shafaei, A., & Nejati, M. (2023). Green human resource management and employee innovative behavior: does inclusive leadership play a role? *Personnel Review*.

Shah, S. T., Shah, S. M., & El-Gohary, H. (2022). Nurturing innovative work behaviour through workplace learning among knowledge workers of small and medium businesses. *Journal of the Knowledge Economy*. https://doi.org/10.1007/s13132-022-01019-5

Shamaa, R. M., & Hamouda, M. A. (2023). Analyzing the relation between workforce innovative behavior and organizational pride. *Financial and Commercial Research Journal - Port Said University*, *24* (1), 24-46.

Sigmundsson, H., Haga, M., & Hermundsdottir, F. (2020). The passion scale: Aspects of reliability and validity of a new 8-item scale assessing passion. *New ideas in psychology*, *56*, 100745.

Sinkula, J. M., Baker, W. E., & Noordewier, T. (1997). A framework for market-based organizational learning: Linking values, knowledge, and behavior. *Journal of the academy of Marketing Science*, *25*(4), 305-318.

Smith, R., Min, H., Haynes, N., & Clark, M. (2023). A content validation of work passion: Was the passion ever there? *Journal of Business and Psychology*, *38*(1), 191-213.

Tierney, W. G., & Lanford, M. (2016). Conceptualizing innovation in higher education. *Higher education: Handbook of theory and research*, 1-40.

Tjahjadi, B., Soewarno, N., Jermias, J., Hariyati, H., Fairuzi, A., & Anwar, D. N. (2022). Does engaging in global market orientation strategy affect heis' performance? The mediating roles of Intellectual Capital Readiness and open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, *8*(1), 29. https://doi.org/10.3390/joitmc8010029

Toker, A. (2022). Importance of leadership in the higher education. *International Journal of Social Sciences & Educational Studies*, *9*(2). https://ijsses.tiu.edu.iq/index.php/volume-9-issue-2-article-17/

Tutar, H., Nart, S., & Bingöl, D. (2015). The effects of strategic orientations on innovation capabilities and market performance: The case of ASEM. *Procedia-Social and Behavioral Sciences*, *207*, 709-719.

Udin, U., & Shaikh, M. (2022). Transformational Leadership and Innovative Work Behavior: Testing the Mediating Role of Knowledge Sharing and Work Passion. *JDM (Jurnal Dinamika Manajemen)*, *13*(1), 146-160.

Ulkhaq, M. M., Wijayanti, W. R., Dewi, W. R., Prayogo, A., Aulia, F. S., Utami, A. A., & Mustikasari, A. (2018). Formulating a marketing strategy of SME through a combination of 9Ps of marketing mix and Porter's five forces: a case study. In *Proceedings of the 1st International Conference on Big Data Technologies* (pp. 109-114). https://doi.org/10.1145/3226116.3226136

Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., Gagné, M., & Marsolais, J. (2003). Les Passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, *85*(4), 756–767.

Wang, Y. (2022). Analyzing the mechanism of strategic orientation towards digitization and organizational performance settings enduring employee resistance to innovation and performance capabilities. *Frontiers in Psychology*, *13*, 1006310.

Wang, Y., Chen, Y., & Zhu, Y. (2020). Promoting innovative behavior in employees: The mechanism of leader psychological capital. *Frontiers in Psychology*, *11*, 598090.

Yamak, O. U., & Eyupoglu, S. Z. (2021). Authentic leadership and service innovative behavior: mediating role of proactive personality. *SAGE Open*, *11*(1), 2158244021989629. https://journals.sagepub.com/doi/full/10.1177/2158244021989629

Ye, P., Liu, L., & Tan, J. (2021). Influence of knowledge sharing, innovation passion and absorptive capacity on innovation behavior in China. *Journal of Organizational Change Management*, *34*(5), 894-916.

Zhang, M., Hu, E., & Lin, Y. (2023). The impact of flexibility-oriented HRM systems on innovative behavior in China: a moderated mediation model of dualistic passion and inclusive leadership. *Asia Pacific Business Review, 29*(1), 114-135.

Zulfqar, A., Valcke, M., Quraishi, U., & Devos, G. (2021). Developing academic leaders: Evaluation of a leadership development intervention in higher education. *SAGE Open, 11*(1), 215824402199181. https://doi.org/10.1177/2158244021991815