


NEXUS OF STRATEGIC THINKING, KNOWLEDGE-ORIENTED LEADERSHIP, AND  
EMPLOYEE CREATIVITY IN HIGHER EDUCATION INSTITUTES

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p><b>Received</b> 27 January 2023</p> <p><b>Accepted</b> 23 March 2023</p>	<p><b>Purpose:</b> The aim of this study is to examine strategic thinking and knowledge-oriented leadership influence employees' creativity in the setting of Jordanian private universities.</p> <p><b>Theoretical framework:</b> The study employed Path Goal Theory to clarify the interaction of the variables used in Higher Education Institutes to address the issue.</p> <p><b>Design/methodology/approach:</b> The research used a “<i>partial least squares-structural equation modeling</i>” approach to examine the gathered data. For analysis purpose, was developed and empirically verified with data (n = 143) obtained from a random sample of private universities in Jordan.</p> <p><b>Findings:</b> The result found that Strategic thinking promotes and increases employee creativity. However, knowledge-oriented leadership moderates the causal association between strategic thinking and employee creativity.</p> <p><b>Research implications:</b> The results are presented taking into account the relevant research as well as the practical implications for higher education administrators.</p> <p><b>Originality/value:</b> The novel theoretical contribution that was made by this study is its emphasis on knowledge-oriented leadership as a moderator in the link between strategic thinking and employee creativity.</p>
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NEXUS DE PENSAMENTO ESTRATÉGICO, LIDERANÇA ORIENTADA PARA O  
CONHECIMENTO E CRIATIVIDADE DOS FUNCIONÁRIOS NOS INSTITUTOS DE ENSINO  
SUPERIOR

RESUMO

**Objetivo:** O objetivo deste estudo é examinar o pensamento estratégico e a liderança orientada ao conhecimento influenciam a criatividade dos funcionários no cenário das universidades privadas jordanianas.

**Estrutura teórica:** O estudo empregou a Teoria do Objetivo do Caminho para esclarecer a interação das variáveis utilizadas nos Institutos de Ensino Superior para abordar a questão.

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**Design/metodologia/abordagem:** A pesquisa utilizou uma abordagem de "modelagem de equações estruturais de mínimos quadrados parciais" para examinar os dados coletados. Para fins de análise, foi desenvolvida e verificada empiricamente com dados (n = 143) obtidos de uma amostra aleatória de universidades privadas na Jordânia.

**Conclusões:** O resultado foi a constatação de que o pensamento estratégico promove e aumenta a criatividade dos funcionários. Entretanto, a liderança orientada ao conhecimento modera a associação causal entre o pensamento estratégico e a criatividade dos funcionários.

**Implicações da pesquisa:** Os resultados são apresentados levando em conta as pesquisas relevantes, bem como as implicações práticas para os administradores do ensino superior.

**Originalidade/valor:** A nova contribuição teórica que foi feita por este estudo é sua ênfase na liderança orientada ao conhecimento como moderador na ligação entre o pensamento estratégico e a criatividade dos funcionários.

**Palavras-chave:** Liderança Orientada ao Conhecimento, Pensamento Estratégico, Institutos de Ensino Superior (IES), Criatividade dos Empregados.

## NEXO ENTRE EL PENSAMIENTO ESTRATÉGICO, EL LIDERAZGO ORIENTADO AL CONOCIMIENTO Y LA CREATIVIDAD DE LOS EMPLEADOS EN LOS INSTITUTOS DE ENSEÑANZA SUPERIOR

### RESUMEN

**Propósito:** El objetivo de este estudio es examinar la influencia del pensamiento estratégico y el liderazgo orientado al conocimiento en la creatividad de los empleados en el entorno de las universidades privadas jordanas.

**Marco teórico:** El estudio empleó la Teoría de la Meta de Trayectoria para aclarar la interacción de las variables utilizadas en los Institutos de Enseñanza Superior para abordar la cuestión.

**Diseño/metodología/enfoque:** La investigación utilizó un enfoque de "mínimos cuadrados parciales-modelación de ecuaciones estructurales" para examinar los datos recopilados. A efectos de análisis, se elaboró y verificó empíricamente con datos (n = 143) obtenidos de una muestra aleatoria de universidades privadas de Jordania.

**Resultados:** El resultado fue que el pensamiento estratégico promueve y aumenta la creatividad de los empleados. Sin embargo, el liderazgo orientado al conocimiento modera la asociación causal entre el pensamiento estratégico y la creatividad de los empleados.

**Implicaciones para la investigación:** Los resultados se presentan teniendo en cuenta la investigación pertinente, así como las implicaciones prácticas para los administradores de la educación superior.

**Originalidad/valor:** La aportación teórica novedosa de este estudio es su énfasis en el liderazgo orientado al conocimiento como moderador en el vínculo entre el pensamiento estratégico y la creatividad de los empleados.

**Palabras clave:** Liderazgo Orientado al Conocimiento, Pensamiento Estratégico, Institutos de Enseñanza Superior (IES), Creatividad de los Empleados.

### INTRODUCTION

Education has become an essential driver behind the growth of societies and nations with respect to civilizational, economic, cultural, and social development aspects (Alhanatleh & Akkaya, 2016). Education provides an opportunity for human capital development in the pursuit of national, societal, and organizational success goals (Arcidiacono et al., 2010; Fägerlind & Saha, 2016). Higher Education (HE) is set to equip students with the required knowledge and skills to make them employable and fulfill the demands of the labor market (Al-Nimer & Alsheikh, 2021). For these reasons, governmental and non-governmental organizations are urging higher education to focus on the quality of its output rather than the quantity of graduates (Khare, 2014; Abd Majid et al., 2020). While in the face of these frantic challenges, there is mostly traditional management, which, with its operations and means, has

become unable to improve the competitiveness of the organization. These traditionally managed organizations should transform or reform to utilize state-of-the-art managerial methods to increase and/or sustain the organization's competitiveness (Alzghoul et al., 2022).

Strategic thinking (ST) presents an approach to promote excellence and sustainability in organizations (Ershadi & Dehdazzi, 2019). ST is defined as the knowledge that must be available within the individuals working within any organization to identify opportunities, threats, and issues for the future and continuity in survival and to know how to deal with them in a permanent and continuous manner (Goldman et al., 2015; Dionisio, 2017). Leaders have a critical role in establishing a positive work environment for employees; as a result, establishing a flawless management approach for individuals and inspiring them to follow the leader in order to achieve the organization's goals is really what leadership does (Kane-Urrabazo, 2006; Alzghoul, 2017; Perdhana et al., 2022). For example, if leaders fail to establish a favorable environment for their staff, this will have a negative impact on their socio-psychological stability as well as their performance (Stouten et al., 2010). According to Yang et al. (2014), knowledge-oriented leadership and ST competencies are two critical components that an organization must have. The notion of knowledge leadership's purpose is to foster a good cultural attitude toward knowledge sharing and acquisition; one that values continual learning and places a premium on experience, competence, and creativity above hierarchy (Davenport et al., 1998; Alzghoul, 2013; Shibly et al., 2014).

Personal characteristics are vital in meeting work-related expectations, according to social science theorists; both social and organizational structures have a considerable impact on employee success (Kanter, 1976). Based on these, organizations are seen as burdened with providing structures and resources to people that could boost creativity and performance. Employee creative performance is seen as an integrated strategic approach to achieving continuous organizational success by improving the performance of the organization's employees and developing their individual and collective capabilities (Alatailat et al., 2019; Rasmussen, 2018; AL-Qudah et al., 2014).

The phenomenal influence of the COVID-19 pandemic on almost all sectors and activities over the globe has not excluded the education sector (Di Pietro et al., 2020; Al-Samarrai, 2020; Aburumman et al., 2020). To deal with the effects of the COVID-19 pandemic on the Higher Education Institutes (HEIs), decision-makers ought to face a multi-faceted emergency. HEIs face a number of unavoidable challenges that extend beyond health threats and include, but are not limited to, culture, logistics, and academics. On the one hand, a subset

of these challenges is urgent and requires quick decisions to be dealt with. This urgency requires decision-makers to strategically think of how to convert these challenges into opportunities (Donitsa-Schmidt & Ramot, 2020; Ratten, 2020). Much research views ST as one of the major management skills that can be mastered via proactive planning in order to manage strategic issues and dilemmas. An increasing body of evidence demonstrates that organizational leadership can enhance employee creative performance (e.g., Audenaert & Decramer, 2018; Ozturk & Karatepe, 2019). Despite that, the dynamics of relationships using a modern relationship strategy (e.g., Knowledge-Oriented Leadership) have not been adequately examined. Some researchers believe that the mechanisms by which leadership within the organization influences the execution of creative performance have not been well considered (Crossan & Apaydin, 2010; Alzghoul et al., 2018). As a result, it might be deemed a result worthy of further investigation. This research seeks to investigate the impact that ST has on employee creativity in HEIs by using knowledge-oriented leadership as a moderator within the Jordanian context.

## LITERATURE REVIEW

The business environment is rapidly changing, as is the quality of life, resulting in a shift in the norms and processes for working and living (Alhanatleh et al., 2022). In order to tackle today's challenges and make the best judgments, management must think strategically (AlQershi, 2021; Alkasb et al., 2021). In today's evolving workplace, creativity and novelty are essential components for gaining a competitive advantage. Organizations' duty is to outrun inventive rivals and stimulate innovation in order to survive and develop in the face of rapidly advancing technology, fierce local and/or worldwide competition, and an unpredictable and changeable economic environment (Vrontis et al., 2018). Simply put, creativity is the generation of new and beneficial concepts or solutions for services, products, procedures, and methods (Amabile, 1997; Zhou & George, 2001).

ST is characterized as an elite activity based on its outcomes, behaviors, or processes, according to a study of the literature (Goldman et al., 2015; Elrehail et al., 2021). Mintzberg's research from 1994 has shown that strategic thinking is the first step in the process of strategic planning. While Bonn (2005) defined ST as a method for solving problems and developing plans that generate a competitive advantage, Furthermore, Shaik and Dhir (2020); Dhir et al. (2018) have indicated that ST is a tool for predicting future changes and making appropriate strategic decisions, as well as assisting organizations in creating new opportunities. ST

emphasizes strategy and its impact on organizational sustainability, as well as how it helps organizations maintain their alignment with the permanent changes in the external environment (Self et al., 2015; Kopnina, 2017). ST is a process that yields a set of visions and gains with agreed-upon benefits for the good of individuals, teams, and organizations (Sloan, 2019). As an organizational phenomenon, ST focuses on identifying goals, priorities, strategies, and techniques. On the other hand, as an individual phenomenon, it necessitates the development of a strategic mindset, which allows the individual to: look for and be open to new things; identify patterns and interpret variety in the environment; investigate new options; and deal with large amounts of data (Pisapia et al., 2011; Jaradat et al., 2017).

Individuals who are motivated are far more likely to become creative (e.g., by delight, enthusiasm, enjoyment, fulfillment, as well as the challenges of the work) than those who are not (Costa et al., 2015). Human resource management (HRM) is getting a lot of attention lately, especially in studies looking at how ST affects employee and overall organizational performance (Moon, 2013; Abd Halim et al., 2017; Zamanan et al., 2020; Aburumman et al., 2020). Juma et al. (2016) investigated the impact of ST on the performance of the organization and discovered that organizational development and performance are influenced by different factors, for example, the conditions of the organization and the characteristics of its workers. Because ST leads to improved performance, leaders that rely on all of these ST skills watch out for the requirements of all employees and give possibilities for their improvement, promotion, and self-development (Alatailat et al., 2019). A large number of scholars have shown that organizational culture has an influence on a range of member outcomes, including satisfaction, commitment, performance, and creativity (Toor & Ofori, 2009; Ruiz-Palomino et al., 2013; Ananthram et al., 2018; Obeidat et al., 2018; George et al., 2021; Mert et al., 2021). As a result, ST improves visionary thinking, system thinking, creativity, and synthesis, all of which contribute to a better work environment and, as a consequence, the growth of creative performance. The following hypotheses are derived from these considerations:

Employees view leadership as a context-specific factor that influences creative performance, and organizations have made it a priority to integrate their leadership approach with their long-term objectives (Elrehail et al., 2018; Alatailat et al., 2019; Muceldili et al., 2013). The impact of leadership on creative performance is an intriguing issue that has attracted numerous studies in the West but is still in its infancy in the Arab world. It has been claimed that employee motivation is the most important factor in their ability to be creative (Amabile et al., 1996). The major motivators in the workplace are found to be leaders. Surprisingly, the

genuine connection between the chosen style of leadership and the degree of creative performance by the employee (i.e., positive or negative) produces conflicting findings. Zhou and Ren (2011) claim that the management style in the company has a negative impact on employees' creativity. In addition, they claim that stringent management and supervision foster fairness, which lowers creative performance and, consequently, work performance. Additionally, researchers have shown an unfavorable link between transferable leadership style and staff members' inventiveness (e.g., Pieterse et al., 2010; Jansen et al., 2009). Leaders can assist followers by requiring creativity as a work requirement, offering feedback on the advancement of creative goals, and rewarding them for producing creative outcomes (De Stobbeleir & Ashford, 2011).

Within an organizational context, leaders can achieve desirable employee behaviors and attitudes by adjusting suitable management behaviors in diverse contexts (Dewi & Ginting, 2022; Atiyeh, 2022). Path goal theory claims that management success is dependent on the specific style of behavior adopted by supervisors in every given scenario (McLaurin, 2006; Ronald, 2014; Alsheikh & Sobihah, 2019). On the other hand, several studies in the literature show that authentic leadership, transformational leadership, transactional leadership, and knowledge-oriented leadership all have a positive influence on creativity (Rego et al., 2012; Zia, 2020). For example, transformational leadership has been found to improve creativity and performance (Shin & Zhou, 2003; Sosik et al., 1998). In accordance with Alzghoul et al. (2018) research, authentic leadership is important for inspiring people to think and act creatively. Moreover, Zia 2020, discovered that goal orientations had a moderating influence on the association between leadership and subordinates' overall performance and that KOL has a positive influence on subordinates' performance.

Hamel and Prahalad (1994) argue that if leaders want to develop strategic thinking skills at all levels of the organization, they must take into account not just whether their employees have the right combination of skills and personal characteristics but also whether they have leadership qualities. On the other hand, among other organizational characteristics, organizational culture may play a significant role in limiting or encouraging strategic thinking; leaders, as individuals who perform key roles in culture and strategic thinking, can optimize the link between strategic thinking and creativity (Shirvani & Shojaie, 2011). Leaders who pose ST skills, such as promoting organizational culture, must be considered in order to improve employee performance (Shirvani and Shojaie, 2011; Ahmed & Shafiq, 2014). The systems thinking skill applies to a leader's capacity to view systems comprehensively by comprehending

the qualities, dynamics, patterns, and interrelationships that form the system's behavior, resulting in actionable solutions (Arnold, 2021; Arnold & Wade, 2015; Pisapia et al., 2009). Reflective skills are defined as the capability to combine rational and reasonable thinking using intelligence, awareness, and expertise to make decisions about what has occurred and to develop intuitive rules to enhance future activities (Pisapia et al., 2011; Pang & Pisapia, 2012; Arnold & Wade, 2015). The capacity to alter attention between numerous viewpoints, framings, and paradigms to produce fresh understandings and alternatives for tasks is referred to as a reframing skill (Pang & Pisapia, 2012; Karğın & Aktaş, 2012; Jelenc & Pisapia, 2015).

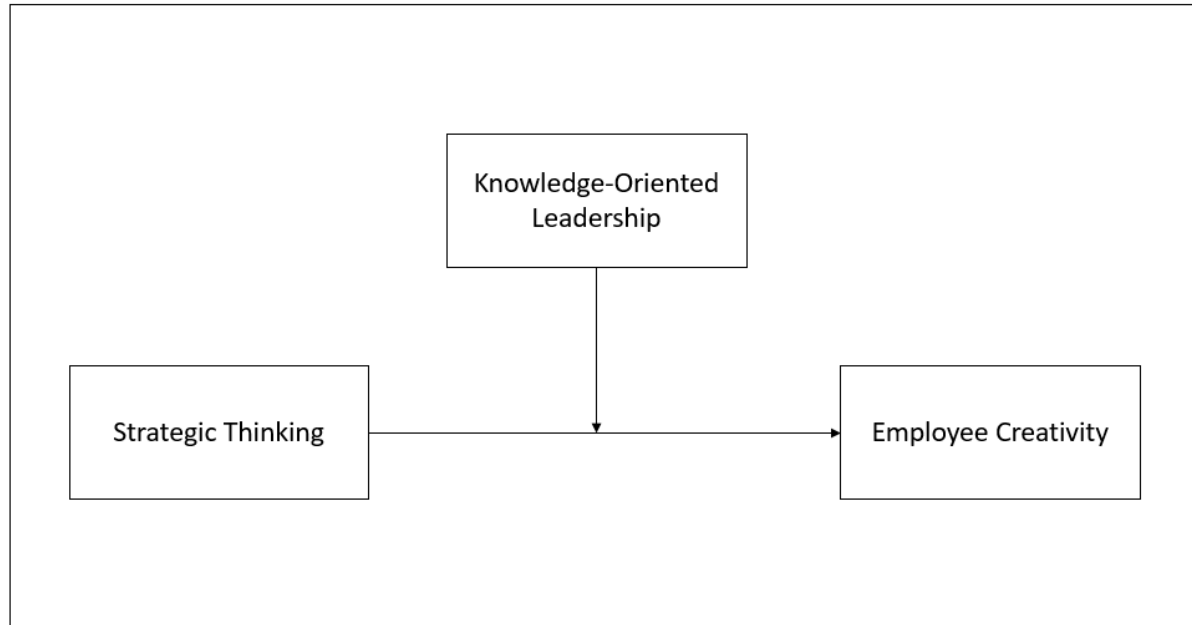
Pisapia and his colleagues (2011) argue that active leaders employ these skills in a different way than less active leaders, particularly in complicated situations. Hence, in the context of the Corona pandemic, this study was undertaken at HEIs, emphasizing the significance of leaders adopting ST in these institutions, given the terrible conditions that the entire globe is experiencing. According to Goldman and Scott (2016), organizational leaders have been scolded for their limited strategic thinking, and experts have urged that it be developed in order to continuously improve performance. The most important condition for addressing the business and its subordinates to guide the road to success is effective leadership to acquire knowledge. While the research supported the centrality of strategic thinking, assessment techniques to test a leader's capacity to conduct these abilities were not easily available, therefore they were not frequently explored empirically (Pisapia et al., 2011). KOLs and the organization's ST have common and direct linkages in terms of developing a work plan for future aims and objectives (Almatrooshi et al., 2020). Emotional commitment, creativity, and employee job engagement are all favorably influenced by KOL, according to Shamim et al., 2019. The majority of KOL research has looked at how supervisory practices affect employee innovation and performance (Donate & de Pablo, 2015; Sadeghi & Rad, 2018; Shamim et al., 2019; Almatrooshi et al., 2020; Zia, 2020). A rare study has examined the connection between KOL and employee creativity. This study was motivated by the contradicting findings to learn more about the benefits of ST on employee creativity, especially when KOLs are taken into account. The following hypotheses are provided based on the theoretical and empirical evidence presented.

***H1: ST has a positive relationship with employee creativity.***

***H2: KOL moderate the relationship between ST and employee creativity***

Based on the hypotheses mentioned, the following research model in figure (1) is provided:

Figure 1: Proposed research model



Source: Prepared by the authors (2022).

## MATERIAL AND METHODOLOGY

This study is limited to a single geographic region in Jordan, specifically universities in the North Province. Given that, the current research is aimed at determining how ST and KOL affect employee creativity. The questionnaire survey was adapted from previous Western-based studies, and two linguistic specialists used the back-translation approach to translate it. After performing a pilot survey with 10 respondents, minor improvements were made. Only private universities were approached ("*Jadara University*" (JU), "*Irbid National University*" (INU), "*Ajloun National University*" (ANU), and "*Jerash University*" (JU)). In addition, employees who participated in the survey at the universities were recruited and asked to willingly engage in the research. To approach the universities, the researchers utilized their own connections. A total of 261 requests were issued via official emails and WhatsApp. Only 143 replies were received in total, resulting in a response rate of 54%. A Google survey was used to collect primary data from October 2021 until December 2021. Participants are guaranteed their security and privacy, and there are no right or wrong answers.

**Strategic Thinking:** All ST elements were scored using the Likert scale. The researchers developed a questionnaire with scale options from (1 to 5), with 1 indicating



"*Strong disagreement*" and 5 indicating "*Strong agreement*". ST was measured via twelve questions modified by Liedtka (1998) and Pisapia (2011) were used to assess the variable.

**Employee creativity:** In this study, we measured employee creativity by using thirteen items adopted from (Zhou & George, 2001). It was tested on a personal basis utilizing a "*self-reported*" manner; even others disagreed with the method and suggested that creativity be assessed by a supervisor (Tierney et al., 1999). But in the case of assessing employee creativity, many studies rely on self-reported measurements (e.g., Shalley et al., 2009; Kaufman, 2006). It is because evaluating your own creative habits is easier and more meaningful than evaluating someone else's. Employees, in fact, have better access to information about specific parts of their employment than anybody else does (Amabile & Mueller, 2008; Cerne et al., 2013).

**Knowledge-Oriented Leadership:** Nine items that were adapted from Donate and de Pablo (2015) and Shamim (2019) were used to measure the construct. The response alternative options are from (1 to 5), with 1 indicating "*strong disagreement*" and 5 indicating "*strong agreement*".

## RESULTS AND DISCUSSION

The tools SPSS and PLS-SEM were used to analyze the data gathered for this study. Using SPSS, a descriptive analysis of the data was performed as the initial step in data analysis (version 24). Following that, the model developed for the study was tested using SmartPLS (version 3.3.3). Sarstedt et al. (2017) indicate that PLS-SEM is a causal-predictive approach to SEM that lets researchers figure out how well their findings can be used to make predictions.

The factor loading ranged from 0.729 to 0.897 for all items. Items having loadings of 0.7 or above should therefore be maintained (Hair et al., 2019). Additionally, internal consistency and reliability as well as convergent validity were assessed using "*composite reliability (CR), Cronbach's alpha (C $\alpha$ ), and average variance extracted (AVE)*". According to the findings, the indices' values for (C $\alpha$ ), (CR), and (AVE) were all over 0.70 (Henseler et al., 2009; Hair et al., 2016; Hair et al., 2019), as shown in Table (1). Overall, the results demonstrate that convergent validity and reliability are present.

Table 1. Descriptive properties of the survey items, reliability, and convergent validity

Construct	Items	Loadings	C $\alpha$	CR	AVE
<b>Strategic Thinking</b>	ST1	0.871	0.886	0.923	0.718
	ST2	0.867			
	ST3	0.844			
	ST4	0.859			
	ST5	0.821			
	ST6	0.834			
	ST7	0.884			
	ST8	0.814			
	ST9	0.826			
	ST10	0.816			
	ST11	0.816			
	ST12	0.792			
<b>Knowledge-Oriented Leadership</b>	KOL1	0.880	0.925	0.912	0.559
	KOL2	0.826			
	KOL3	0.751			
	KOL4	0.897			
	KOL5	0.852			
	KOL6	0.844			
	KOL7	0.773			
	KOL8	0.849			
	KOL9	0.785			
<b>Employee creativity</b>	EC1	0.813	0.946	0.937	0.668
	EC2	0.729			
	EC3	0.823			
	EC4	0.840			
	EC5	0.875			
	EC6	0.802			
	EC7	0.785			
	EC8	0.741			
	EC9	0.850			
	EC 10	0.867			
	EC11	0.834			
	EC12	0.883			
	EC13	0.830			

*Notes: AVE = average variance extracted; CR = composite reliability; C $\alpha$  = Cronbach's alpha*

Source: Prepared by the authors (2022).

We investigated discriminant validity using two techniques, following the recommendations by Henseler et al. (2015) and Hair et al. (2019): the traditional Fornell-Larcker criteria and the newly introduced correlations (HTMT). In accordance with the Fornell-Larcker discriminant validity criterion, the squared AVE of each concept is larger than the inter-construct correlations as presented in Table (2) (Fornell & Larcker, 1981). The HTMT correlation ratios are shown in Table (3). As reported by Henseler et al. (2015), all of the values should be less than 0.90 for each construct, and the results show that the range is between 0.695 and 0.792. The current result adds to the body of evidence supporting discriminant validity.

Table 2. Discriminant validity using Fornell–Larcker criterion

Constructs	1	2	3
1. Strategic Thinking	<i>(0.878)</i>		
2. Knowledge-Oriented Leadership	0.783	<i>(0.915)</i>	
3. Employee creativity	0.794	0.756	<i>(0.932)</i>

Source: Prepared by the authors (2022).

Table 3. Discriminant validity using HTMT ratios

Constructs	1	2	3
1. Strategic Thinking	-		
2. Knowledge-Oriented Leadership	0.695	-	
3. Employee creativity	0.716	0.792	-

Source: Prepared by the authors (2022).

A structural equation modelling (SEM) was used to examine the study hypotheses (Hair et al., 2019). In order to construct the route coefficients, the hypothesized model was tested using the PLS-SEM technique with SmartPLS (version 3.3.3). The t-values and p-values for each route coefficient were then formed using 5000 resamples using bootstrapping. As proposed by Preacher and Hayes (2008), bootstrapping is increasingly being used to investigate route coefficients. The study results are presented in Table 4. The table depicts the key interactions between the variables.

Table 4. Hypotheses testing

No.	Hypotheses	Path Coefficient	T-Value	P-Value	Confidence Interval		Decision
					95% LL	95% UL	
<b>H1</b>	ST→EC	0.181	4.237	0.001*	0.068	0.291	Accepted

*Note: \*: p<0.01*

Source: Prepared by the authors (2022).

The results in Table 4 indicated that strategic thinking has a significant effect on employee creativity in higher education institutes in Jordan (Path Coefficient = 0.181; T-Value = 4.237; P-Value = 0.001; 95% LL= 0.068; 95% UL= 0.291), thus H1 was accepted. On the other hand, Table 5 illustrates testing of moderating effects. The results indicated that knowledge-oriented leadership moderated the relationship between strategic thinking and

creativity in higher education institutes in Jordan (Indirect Effect = 0.186; T-Value = 3.122; P-Value = 0.003; 95% LL= 0.137; 95% UL= 0.187), therefore H2 was supported.

Table 5. Testing of moderating effect

No.	Hypothesis	Indirect Effect	T-Value	P-value	Confidence Interval		Decision
					95% LL	95% UL	
H2	ST→KOL→EC	0.186	3.122	0.003*	0.137	0.187	Accepted

Note: \*:  $p < 0.01$

Source: Prepared by the authors (2022).

Organizations are currently in a precarious situation because of the global COVID-19 pandemic outbreak. Instable work conditions, financial and operational issues, and other organization-wide obstacles are all part of this circumstance. Individuals, in addition to organizations, play an important role in dealing with these issues by contributing their expertise and talents to attempts to confront such unexpected challenges. HEIs play a critical role in the development of societies and nations. The COVID-19 situation has had a significant influence on HEI's operations. HEIs, on the other hand, show resiliency in the face of a coronavirus outbreak. This adaptability is a result of the innovative initiatives taken by its creative staff and administration, such as the seamless transition to remote learning in the absence of prior preparation on the part of HEIs.

Despite the fact that ST has been demonstrated to play a critical role in an organization's global success (França et al., 2017; Ginter et al., 2018; Dixit et al., 2021; Baxter & John, 2021). Its impact on employee creativity and its interaction with KOL, particularly in Arabian HEIs, have yet to be investigated. To fill this gap, the current study investigates how strategic thinking and knowledge-oriented leadership promote employee creative performance in HEIs. According to the findings of this study for hypothesis 1, strategic thinking has a considerable impact on employee creativity in Jordanian HEIs (path coefficient = 0.181 &  $p \leq 0.01$ ) as reported in Table 4. In other words, HEIs' management is committed to continuously improving employee creative performance by employing visionary thinking, system thinking, creativity, and synthesis. This is consistent with other researchers who have identified an association between ST and performance (Alatailat et al., 2019; Ershadi & Dehdazzi, 2019; Alomari, 2020; AlQersh, 2021; Khaddam et al., 2021); and innovation (Moghadam et al., 2018; Navid Adham & Shafizadeh, 2019; Olaleye et al., 2020).

The second hypothesis, the research finding, shows that KOL dampens the favorable and significant causal link between ST and employee creativity. This means that organizations

whose leaders are capable of delivering vision, facilitation, knowledge diffusion, and innovative role modeling are more likely to foster employee outcomes. Our findings were in line with previous research that suggested that knowledge-oriented leadership might play a moderating influence (e.g., Boussenna & Elkharraz, 2021). The primary novelty of this study is its focus on moderators in the association between ST and employee creativity.

## CONCLUSIONS

The current study contributes to strategic management and leadership literature. This research found that KOLs had a moderate influence on linking ST and staff creativity. The previous studies add to the HRM literature in a variety of ways. In strategic management, ST competence develops workers' creativity, which is crucial in today's unpredictable world. We contribute to leadership literature by identifying antecedents and context. After conducting empirical research on HEI employees in Jordan, a non-Western and developing country, ST and leadership indicators were included. By showing them as antecedents of good work behavior in Arabian work contexts and expanding their theory. Our study reveals that contemporary leadership styles like KOL increase staff creativity in HEIs.

The strong relationship between ST and KOL is crucial because it sheds light on how leaders disseminating information to their subordinates could increase overall team performance. We showed how crucial it is for leaders to maintain their own status as strategic thinkers and inventive role models while simultaneously encouraging their teams to remain actively invested in the company despite the constant instability they face. This study marks a significant milestone in strategic thinking, according to universities leaders. It surpasses prior ST research in that it provides managers with possibilities to foster staff creativity. It achieves this by drawing attention to the need for combining ST and KOL, something that HEIs should think about if they want to maximize the influence of their leaders. Taken together, our results demonstrate that ST and KOL may help mitigate the damaging effects of pessimistic perspectives and actions on productivity.

Self-administered surveys may lead to self-report bias, reducing the validity of the study. Donaldson and Grant-Vallone (2002) say self-reported bias encourages individuals to react so they seem good compared to others. Respondents were asked to score their perceived creativity, thus it is possible they overestimated their abilities. Therefore; further study that gathers data at various periods or utilizes multisource. In future study, longitudinal design and multi-source data are encouraged. We gathered data from four universities to strengthen our

ability to generalize the results, but future research may concentrate on other locations and industries (e.g., healthcare, banking, and telecommunications). Also; Future study route is to explore the effect of ST on creativity utilizing mediate-moderate factors (e.g., knowledge management, workplace climate, and servant leadership) as organizations move toward creative talent acquisition and management.

## REFERENCES

- Abd Halim, M. S. B., Alsheikh, G., & Ayassrah, A. Y. (2017). A Study on the Relationship between Organizational Culture, Leadership Style, Organizational Commitment and Organizational Citizenship Behaviour.
- Abd Majid, M. Z., Hussin, M., Norman, M. H., & Kasavan, S. (2020). The employability skills among students of Public Higher Education Institution in Malaysia. *Geografia-Malaysian Journal of Society and Space*, 16(1).
- Aburumman, O. J., Salleh, A. M. M., & Omar, K. (2020). How the organizations will maintain their human element under coronavirus pandemic. *Studies in Indian Place Names*, 40(60), 4890-4895.
- Aburumman, O., Salleh, A., Omar, K., & Abadi, M. (2020). The impact of human resource management practices and career satisfaction on employee's turnover intention. *Management Science Letters*, 10(3), 641-652.
- Ahmed, M., & Shafiq, S. (2014). The impact of organizational culture on organizational performance: a case study on telecom sector. *Global journal of management and business research*.
- Alatailat, M., Elrehail, H., & Emeagwali, O. L. (2019). High performance work practices, organizational performance and strategic thinking. *International Journal of Organizational Analysis*.
- Alhanatleh, H., & Akkaya, M. (2016). The Investigation of Jordanian Education Ministry Employees' Attitude toward the Using of Cloud ERP. *International Journal of Communications, Network and System Sciences*, 9(11), 440.
- Alhanatleh, H., Aboalghanam, K., & Awad, H. (2022). Electronic government public value of public institutions in Jordan. *International Journal of Data and Network Science*, 6(1), 27-36.
- Alkasb, Z., Aboalghanam, K., Awad, H., & Alhanatleh, H. (2021). The Impact of Supply Chain Collaboration on Operational Performance: The Moderation Role of Supply Chain Complexity. *International Journal of Entrepreneurship*, 25(5).
- Almatrooshi, M. J. A., Khalifa, G. S., Ameen, A., Hossain, M. S., & Morsy, M. A. (2020). The role of knowledge oriented leadership and knowledge sharing to manage the performance of Ministry of Interior in UAE. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 4(2), 9-17.
- Alomari, Z. (2020). Does human capital moderate the relationship between strategic thinking and strategic human resource management?. *Management Science Letters*, 10(3), 565-574.

Alsmairat, M., AboAlsamh, H., & Alzghoul, A. (2021). The Interplay among Organizational Sourcing, HRM Proficiency: A Mediated-Moderated Model. *Academy of Strategic Management Journal*, 20(6).

Al-Nimer, M., & Alsheikh, G. (2021). Unleashing the role of e-learning in student engagement practices and accounting professional competencies. *Journal of Applied Research in Higher Education*.

Alsheikh, G., & Sobihah, M. A. A. (2019). Effect of behavioral variables on organizational citizenship behavior (OCB), with job satisfaction as moderating among Jordanian five-star hotels: A pilot study. *International Journal of Ethics and Systems*.

Al-Samarrai, S., Gangwar, M., & Gala, P. (2020). The Impact of the COVID-19 pandemic on education financing.

AlQershi, N. (2021). Strategic thinking, strategic planning, strategic innovation and the performance of SMEs: The mediating role of human capital. *Management Science Letters*, 11(3), 1003-1012.

AL-Qudah, M. K. M., Osman, A., & Ali, B. J. A. R. (2014). Effect of human resource polarization, training and development, and human resource stimulation on the strategic planning of human resources: evidence from the Government Ministry in Jordan. *Advances in Environmental Biology*, 675-679.

Alzghoul, A. (2013). Evaluation of University-Library knowledge management practice: comparative case studies from developing and developed countries.

Alzghoul, A. (2017). The Role of Leadership Style on Employee Outcome: An Overview. *American Academic & Scholarly Research Journal*, 9(5).

Alzghoul, A., Elrehail, H., Emeagwali, O. L., & AlShboul, M. K. (2018). Knowledge management, workplace climate, creativity and performance. *Journal of Workplace Learning*.

Alzghoul, A., Khaddam, A. A., Abousweilem, F., Irtaimah, H. J., & Alshaar, Q. (2022). How business intelligence capability impacts decision-making speed, comprehensiveness, and firm performance. *Information Development*.

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of management journal*, 39(5), 1154-1184.

Amabile, T. M. (1997). Motivating creativity in organizations: On doing what you love and loving what you do. *California management review*, 40(1), 39-58.

Amabile, T., & Mueller, J. (2008). Studying creativity, its processes, and its antecedents: An exploration of the componential theory of creativity. In: Zhou J and Shalley CE (eds) *Handbook of Organizational Creativity*. New York, NY: Lawrence Erlbaum Associates, pp. 31–62.

Ananthram, S., Xerri, M. J., Teo, S. T., & Connell, J. (2018). High-performance work systems and employee outcomes in Indian call centres: a mediation approach. *Personnel Review*.

Arcidiacono, P., Bayer, P., & Hizmo, A. (2010). Beyond signaling and human capital: Education and the revelation of ability. *American Economic Journal: Applied Economics*, 2(4), 76-104.

- Arnold, R. D. (2021). *Systems Thinking: Definition, Skills, Simulation, and Assessment* (Doctoral dissertation, Stevens Institute of Technology).
- Arnold, R. D., & Wade, J. P. (2015). A definition of systems thinking: A systems approach. *Procedia computer science*, 44, 669-678.
- Atiyeh, S. N. S. (2022). The Impact of Strategic Leadership on the Employees' Creativity Atprivate Hospitals in Palestine: a Case Study. *International Journal of Professional Business Review*, 7(4), e0688-e0688.
- Audenaert, M., & Decramer, A. (2018). When empowering leadership fosters creative performance: The role of problem-solving demands and creative personality. *Journal of Management & Organization*, 24(1), 4-18.
- Baxter, J., & John, A. (2021). Strategy as learning in multi-academy trusts in England: strategic thinking in action. *School Leadership & Management*, 41(4-5), 290-310.
- Bonn, I. (2005). Improving strategic thinking: a multilevel approach. *Leadership & Organization Development Journal*.
- Boussenna, Y., & Elkharraz, O. (2021). Leadership as a Moderator between KM and Organizational Performance. *American International Journal of Business Management*, 4(9), 12-21.
- Černe, M., Jaklič, M., & Škerlavaj, M. (2013). Authentic leadership, creativity, and innovation: A multilevel perspective. *Leadership*, 9(1), 63-85.
- Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of management studies*, 47(6), 1154-1191.
- Davenport, T. H., De Long, D. W., & Beers, M. C. (1998). Successful knowledge management projects. *MIT Sloan Management Review*, 39(2), 43.
- Da Costa, S., Páez, D., Sánchez, F., Garaigordobil, M., & Gondim, S. (2015). Personal factors of creativity: A second order meta-analysis. *Revista de Psicología del Trabajo y de las Organizaciones*, 31(3), 165-173.
- De Stobbeleir, K. E., Ashford, S. J., & Buyens, D. (2011). Self-regulation of creativity at work: The role of feedback-seeking behavior in creative performance. *Academy of Management Journal*, 54(4), 811-831.
- Dewi, I. J., & Ginting, G. (2022). Leadership and Entrepreneurship for Creativity and Survival of Tourism Villages in the Covid-19 Times: the Moderating Role of External Support. *International Journal of Professional Business Review*, 7(5), e0940-e0940.
- Dhir, S., Dhir, S., & Samanta, P. (2018). Defining and developing a scale to measure strategic thinking. *Foresight*.
- Di Pietro, G., Biagi, F., Costa, P., Karpiński, Z., & Mazza, J. (2020). *The likely impact of COVID-19 on education: Reflections based on the existing literature and recent international datasets* (Vol. 30275). Publications Office of the European Union.



- Dionisio, M. A. (2017). Strategic Thinking: The Role in Successful Management. *Journal of Management Research*, 9(4), 44-57.
- Dixit, S., Singh, S., Dhir, S., & Dhir, S. (2021). Antecedents of strategic thinking and its impact on competitive advantage. *Journal of Indian Business Research*.
- Donaldson, S. I., & Grant-Vallone, E. J. (2002). Understanding self-report bias in organizational behavior research. *Journal of business and Psychology*, 17(2), 245-260.
- Donate, M. J., & de Pablo, J. D. S. (2015). The role of knowledge-oriented leadership in knowledge management practices and innovation. *Journal of business research*, 68(2), 360-370.
- Donitsa-Schmidt, S., & Ramot, R. (2020). Opportunities and challenges: teacher education in Israel in the Covid-19 pandemic. *Journal of Education for Teaching*, 46(4), 586-595.
- Elrehail, H., Emeagwali, O. L., Alsaad, A., & Alzghoul, A. (2018). The impact of transformational and authentic leadership on innovation in higher education: The contingent role of knowledge sharing. *Telematics and Informatics*, 35(1), 55-67.
- Elrehail, H., Harazneh, I., Abuhjeeleh, M., Alzghoul, A., Alnajdawi, S., & Ibrahim, H. M. H. (2020). Employee satisfaction, human resource management practices and competitive advantage: the case of Northern Cyprus. *European journal of management and business economics*, 29(2), 125-149.
- Elrehail, H., Rehman, S. U., Chaudhry, N. I., & Alzghoul, A. (2021). Nexus among cyberloafing behavior, job demands and job resources: A mediated-moderated model. *Education and Information Technologies*, 1-19.
- Ershadi, M. J., & Dehdazzi, R. E. (2019). Investigating the role of strategic thinking in establishing organizational excellence model: A moderating role of organizational forgetting. *The TQM Journal*.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.
- França, C. L., Broman, G., Robert, K. H., Basile, G., & Trygg, L. (2017). An approach to business model innovation and design for strategic sustainable development. *Journal of Cleaner Production*, 140, 155-166.
- George, B., Pandey, S. K., Steijn, B., Decramer, A., & Audenaert, M. (2021). Red Tape, Organizational Performance, and Employee Outcomes: Meta-analysis, Meta-regression, and Research Agenda. *Public Administration Review*, 81(4), 638-651.
- Ginter, P. M., Duncan, W. J., & Swayne, L. E. (2018). *The strategic management of health care organizations*. John Wiley & Sons.
- Goldman, E. F., Scott, A. R., & Follman, J. M. (2015). Organizational practices to develop strategic thinking. *Journal of Strategy and Management*.
- Goldman, E., & Scott, A. R. (2016). Competency models for assessing strategic thinking. *Journal of Strategy and Management*.
- Hair Jr, J. F., Sarstedt, M., Matthews, L. M., & Ringle, C. M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS: part I—method. *European Business Review*.

- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*.
- Hamel, G., & Prahalad, C. K. (1994). Competing for the future. *Harvard business review*, 72(4), 122-128.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing*. Emerald Group Publishing Limited.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135.
- Jansen, J. J., Vera, D., & Crossan, M. (2009). Strategic leadership for exploration and exploitation: The moderating role of environmental dynamism. *The Leadership Quarterly*, 20(1), 5-18.
- Jaradat, R. M., Keating, C. B., & Bradley, J. M. (2017). Individual capacity and organizational competency for systems thinking. *IEEE Systems Journal*, 12(2), 1203-1210.
- Jelenc, L., & Pisapia, J. (2015). Individual entrepreneurial behavior in Croatian IT firms: The contribution of strategic thinking skills. *Journal of Information and Organizational Sciences*, 39(2), 163-182.
- Juma, G., Minja, D., & Mageto, J. (2016). The impact of strategic thinking on organisational performance: a case study of uchumi supermarket limited. *International Journal of Supply Chain Management*, 1(1), 75-94.
- Kane-Urrabazo, C. (2006). Management's role in shaping organizational culture. *Journal of nursing management*, 14(3), 188-194.
- Kanter, R. M. (1976). The impact of hierarchical structures on the work behavior of women and men. *Social Problems*, 23(4), 415-430.
- Karğın, S., & Aktaş, R. (2012). Strategic thinking skills of accountants during adoption of IFRS and the New Turkish Commercial Code: A survey from Turkey. *Procedia-Social and Behavioral Sciences*, 58, 128-137.
- Kaufman, J. C. (2006). Self-reported differences in creativity by ethnicity and gender. *Applied Cognitive Psychology*, 20(8), 1065-1082.
- Khaddam, A., Irtaimah, H., Al-Batayneh, A., & Al-Batayneh, S. (2021). The effect of business model innovation on organization performance. *Management Science Letters*, 11(5), 1481-1488.
- Khaddam, A. A., Alzghoul, A., Abusweilem, M. A., & Abousweilem, F. (2021). Business intelligence and firm performance: a moderated-mediated model: 商业智能与企业绩效：一种适度的中介模型. *The Service Industries Journal*, 1-17.
- Khare, M. (2014). Employment, employability and higher education in India: The missing links. *Higher Education for the Future*, 1(1), 39-62.
- Kopnina, H. (2017). Sustainability: new strategic thinking for business. *Environment, Development and Sustainability*, 19(1), 27-43.

- Liedtka, J. M. (1998). Strategic thinking: can it be taught?. *Long range planning*, 31(1), 120-129.
- McLaurin, J. R. (2006). The role of situation in the leadership process: A review and application. *Academy of Strategic Management Journal*, 5, 97.
- Mert, İ. S., Sen, C., & Alzghoul, A. (2021). Organizational justice, life satisfaction, and happiness: the mediating role of workplace social courage. *Kybernetes*.
- Mintzberg, H. (1994). Rethinking strategic planning part I: Pitfalls and fallacies. *Long range planning*, 27(3), 12-21.
- Moon, B. J. (2013). Antecedents and outcomes of strategic thinking. *Journal of business research*, 66(10), 1698-1708.
- Mücelandili, B., Turan, H., & Erdil, O. (2013). The influence of authentic leadership on creativity and innovativeness. *Procedia-Social and Behavioral Sciences*, 99, 673-681.
- Pieterse, A. N., Van Knippenberg, D., Schippers, M., & Stam, D. (2010). Transformational and transactional leadership and innovative behavior: The moderating role of psychological empowerment. *Journal of Organizational Behavior*, 31(4), 609-623.
- Navid Adham, M., & Shafizadeh, H. (2019). Investigating the Relationship between Strategic Thinking and Intellectual Capital with an Attitude toward Organizational Innovation among Managers and Experts in Tehran Education Areas. *Technology of Education Journal (TEJ)*, 13(4), 881-890.
- Obeidat, A. M., Abualoush, S. H., Irtaimah, H. J., Khaddam, A. A., & Bataineh, K. A. (2018). The role of organisational culture in enhancing the human capital applied study on the social security corporation. *International Journal of Learning and Intellectual Capital*, 15(3), 258-276.
- Olaleye, B. R., Akkaya, M., Emeagwali, O. L., Awwadd, R. I., & Hamdane, S. (2020). Strategic Thinking and Innovation Performance; The Mediating Role of Absorptive Capabilities. *Revista Argentina de Clínica Psicológica*, 29(5), 2030-2043.
- Ozturk, A., & Karatepe, O. M. (2019). Frontline hotel employees' psychological capital, trust in organization, and their effects on nonattendance intentions, absenteeism, and creative performance. *Journal of Hospitality Marketing & Management*, 28(2), 217-239.
- Pang, N. S. K., & Pisapia, J. (2012). The strategic thinking skills of Hong Kong school leaders: Usage and effectiveness. *Educational Management Administration & Leadership*, 40(3), 343-361.
- Perdhana, M. S., Sawitri, D. R., & Chaerunissa, G. (2022). A Phenomenological Investigation of Person-Organizational Fit: Characteristics and Leadership Styles. *International Journal of Professional Business Review*, 7(5), e0734-e0734.
- Pisapia, J., Pang, N. S. K., Hee, T. F., Lin, Y., & Morris, J. D. (2009). A Comparison of the Use of Strategic Thinking Skills of Aspiring School Leaders in Hong Kong, Malaysia, Shanghai, and the United States: An Exploratory Study. *International Education Studies*, 2(2), 46-58.
- Pisapia, J., Morris, J., Cavanaugh, G., & Ellington, L. (2011). The strategic thinking questionnaire: Validation and confirmation of constructs. In *The 31st SMS Annual International Conference, Miami, Florida November* (Vol. 17).

- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, 40(3), 879-891.
- Rasmussen, C. (2018). Thinking Perspective Profiles as a Predictor of Intelligence Analysts' Job Performance.
- Ratten, V. (2020). Coronavirus (Covid-19) and the entrepreneurship education community. *Journal of Enterprising Communities: People and Places in the Global Economy*.
- Rego, A., Sousa, F., Marques, C., & e Cunha, M. P. (2012). Authentic leadership promoting employees' psychological capital and creativity. *Journal of business research*, 65(3), 429-437.
- Ronald, B. (2014). Comprehensive leadership review-literature, theories and research. *Advances in Management*, 7(5), 52.
- Ruiz-Palomino, P., Martínez-Cañas, R., & Fontrodona, J. (2013). Ethical culture and employee outcomes: The mediating role of person-organization fit. *Journal of business ethics*, 116(1), 173-188.
- Sadeghi, A., & Rad, F. (2018). The role of knowledge-oriented leadership in knowledge management and innovation. *Management Science Letters*, 8(3), 151-160.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial least squares structural equation modeling. *Handbook of market research*, 26(1), 1-40.
- Self, D. R., Self, T., Matuszek, T., & Schraeder, M. (2015). Improving organizational alignment by enhancing strategic thinking. *Development and Learning in Organizations: An International Journal*.
- Shaik, A. S., & Dhir, S. (2020). A meta-analytical review of factors affecting the strategic thinking of an organization. *foresight*.
- Shalley, C. E., Gilson, L. L., & Blum, T. C. (2009). Interactive effects of growth need strength, work context, and job complexity on self-reported creative performance. *Academy of Management journal*, 52(3), 489-505.
- Shamim, S., Cang, S., & Yu, H. (2019). Impact of knowledge oriented leadership on knowledge management behaviour through employee work attitudes. *The International Journal of Human Resource Management*, 30(16), 2387-2417.
- Shibly, M., Alawamleh, H. A., Nawaiseh, K. A., Ali, B. J., Almasri, A., & Alshibly, E. (2021). The Relationship between Administrative Empowerment and Continuous Improvement: An Empirical Study. *Revista Geintec-Gestao Inovacao E Tecnologias*, 11(2), 1681-1699.
- Shirvani, A., & Shojaie, S. (2011). A review on leader's role in creating a culture that encourages strategic thinking. *Procedia-Social and Behavioral Sciences*, 30, 2074-2078.
- Shin, S. J., & Zhou, J. (2003). Transformational leadership, conservation, and creativity: Evidence from Korea. *Academy of management Journal*, 46(6), 703-714.
- Sloan, J. (2019). *Learning to think strategically*. Routledge.

- Sosik, J. J., Kahai, S. S., & Avolio, B. J. (1998). Transformational leadership and dimensions of creativity: Motivating idea generation in computer-mediated groups. *Creativity Research Journal*, 11(2), 111-121.
- Stouten, J., Baillien, E., Van den Broeck, A., Camps, J., De Witte, H., & Euwema, M. (2010). Discouraging bullying: The role of ethical leadership and its effects on the work environment. *Journal of Business Ethics*, 95(1), 17-27.
- Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel psychology*, 52(3), 591-620.
- Toor, S. U. R., & Ofori, G. (2009). Ethical leadership: Examining the relationships with full range leadership model, employee outcomes, and organizational culture. *Journal of Business Ethics*, 90(4), 533-547.
- Vrontis, D., Weber, Y., Thrassou, A., Shams, S. R., & Tsoukatos, E. (2018). *Innovation and capacity building: Cross-disciplinary management theories for practical applications*. Springer.
- Yang, L. R., Huang, C. F., & Hsu, T. J. (2014). Knowledge leadership to improve project and organizational performance. *International Journal of Project Management*, 32(1), 40-53.
- Zamanan, M., Alkhalidi, M., Almajroub, A., Alajmi, A., Alshammari, J., & Aburumman, O. (2020). The influence of HRM practices and employees' satisfaction on intention to leave. *Management Science Letters*, 10(8), 1887-1894.
- Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management journal*, 44(4), 682-696.
- Zia, N. U. (2020). Knowledge-oriented leadership, knowledge management behaviour and innovation performance in project-based SMEs. The moderating role of goal orientations. *Journal of Knowledge Management*.