

Enhancing entrepreneurial strategy skills in Saudi universities employees: The impact of psychological capital

Ahmed K. Hassan^{1,2,*}, Hussam K. Aldawsari³, Mohamed Frikha^{1,4}, Hossam S. Selim¹, Khaled M. Zahran^{1,5},
Hatem Abd Elmonem Saleh Eldiasty^{1,6}, Nagla El-Tanahi⁷, Ahmed M. Abdelwahab⁵,
Ibrahim Tawfeeq Alsedrah⁸, Nahla Saad Ebrahim Aljamaan¹, Badry E. Hammad⁵

¹ Department of Physical Education, College of Education, King Faisal University, Al-Ahsa 31982, Saudi Arabia

² Department of Team Sports and Racket Games, Faculty of Physical Education, Minia University, Minya 61519, Egypt

³ Department of Psychology, College of Education, King Faisal University, Al-Ahsa 31982, Saudi Arabia

⁴ De Research Laboratory Education, Motricity, Sport and Health (LR19JS01), High Institute of Sport and Physical Education, Sfax University, Sfax 3000, Tunisia

⁵ Department of Fights and Individual Sports, Faculty of Physical Education, Minia University, Minya 61519, Egypt

⁶ Department of Department of Individual Sports Training, Faculty College of Physical Education, Helwan University, Helwan 11795, Egypt

⁷ Department of Self-Development, Deanship of Preparatory 1st Year, Imam Abdulrahman Bin Faisal University, Dammam 34212, Saudi Arabia

⁸ Department of Finance and Exchange, College of Business Administration, Imam Abdul Rahman Bin Faisal University, Dammam 34212, Saudi Arabia

* **Corresponding author:** Ahmed K. Hassan, amohhamed@kfu.edu.sa

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Abstract: Psychological capital is recognized as a positive and unique factor that plays a crucial role in human resource development and performance management. It has the potential to increase employees' efforts towards achieving organizational goals and improving their entrepreneurial strategy skills. The objective of this study was to examine the contribution of psychological capital in enhancing the entrepreneurial strategy skills of employees in Saudi universities. The study employed a descriptive approach, specifically utilizing the survey study method. The study sample was intentionally selected from different categories within the study population. Data was collected from 530 participants using two questionnaires. The findings revealed that employees exhibited an average level of psychological capital, while their practice of entrepreneurial strategy skills was rated as poor. The study also demonstrated that psychological capital significantly contributes to enhancing employees' entrepreneurial strategy skills. Furthermore, statistically significant differences were observed in the psychological capital of employees across certain variables, such as personal and functional aspects. The average level of psychological capital among employees indicates the need for further development in this area. By focusing on enhancing psychological capital, organizations can effectively improve the entrepreneurial strategy skills of their employees. It is clear that investing in the psychological capital of employees can lead to significant improvements in their entrepreneurial strategy skills. This highlights the potential for organizations to foster a more entrepreneurial mindset and approach among their staff members. Additionally, the study's findings underscore the need to tailor interventions and development programs to address specific aspects of psychological capital that may vary across different employees. Overall, the study emphasizes that psychological capital is a valuable resource that should be nurtured and developed within the organizational context. By doing so, organizations can not only enhance the entrepreneurial strategy skills of their employees but also cultivate a more resilient, motivated, and engaged workforce. This has the potential to contribute to the overall success and innovation of Saudi universities and similar institutions.

Keywords: entrepreneurial strategy; decision-making; psychological capital; psychological resources; psychological capabilities

1. Introduction

In light of the tremendous technological advancements in recent years, the significance of the human element within organizations has only grown. The human element possesses the capacity to foster development, spur innovation, and diligently work towards enhancing organizational performance and achieving goals with efficiency and effectiveness. Alongside traditional economic capital, there has been a rise in the recognition of complementary forms of capital, such as psychological capital (Cheng et al., 2018). This concept, closely aligned with positive psychology and positive organizational behavior (Ngwenya and Pelsler, 2020), encapsulates the inherent capabilities and skills of individuals that can be nurtured to elevate their performance (Olomi, 2022). Moreover, Alias et al. (2020) posit that psychological capital encompasses the mechanisms through which positive attitudes are cultivated, empowering individuals to assume responsibilities and contribute to the enhancement of individual, group, and organizational performance. Furthermore, Purwanto et al. (2021) underscore that psychological capital varies among individuals, influenced by their personal attributes and the conditions of the work environment.

Psychological capital is stimulated not only by individual characteristics but additionally through the organizational context wherein employees perform. This implies that organizational elements play a vital position in improving psychological capital among personnel (Saleem et al., 2022). Therefore, corporations have to prioritize the introduction of a fine work surroundings, the promoting of equity and justice, and the implementation of effective control practices to foster and maintain psychological capital (Wang et al., 2022). Additionally, fostering tremendous relationships at work, imparting opportunities for talent development (Newman and Anderson-Butcher, 2021), and encouraging a culture of open communication can contribute to the development of psychological capital (Goswami and Agrawal, 2022). Such initiatives will have a great effect on employee well-being (Juchnowicz and Kinowska, 2021), job satisfaction, and overall performance (Panchal et al., 2022), ultimately benefiting the organization as a whole. Psychological capital is influenced by a range of factors, including the organizational climate, organizational justice, leadership style, quality of leader-subordinate relationships, personality traits, job pressures, work ethics, and contemporary management approaches (Azman et al., 2022; Kong et al., 2018). It encompasses positive dimensions such as self-efficacy, hope, optimism, flexibility, and confidence, which collectively form its core components (Efilti and Çoklar, 2019). These dimensions reflect individuals' positive psychological state (Gupta et al., 2019). Importantly, psychological capital focuses on leveraging employees' abilities, capabilities, and positive strengths rather than solely addressing their weaknesses and shortcomings (Poots and Cassidy, 2020).

The significance of psychological capital lies in the positive impact of its dimensions on various management elements. Firstly, psychological capital is crucial due to its association with job performance (Xu et al., 2017). Furthermore, its dimensions have a profound influence on individuals' behaviors, such as promoting happiness at work (Plessis, 2018). Psychological capital is also linked to individuals' workplace performance, serving as a long-term investment that enables organizations

to achieve their goals and gain a competitive advantage. Moreover, it helps mitigate undesirable behaviors that can lead to financial and administrative corruption (Ozturk and Erkanli, 2020). Additionally, psychological capital reduces the work pressure, anxiety, and psychological tension experienced by human resources within organizations. It also contributes to enhancing employees' awareness of the quality of work life, ultimately leading to the organization's goal attainment, development, and increased profits (Wirawan and Jufri, 2020).

Strategic management performs an important function in steering organizations closer to their targets via supplying clear path and vision. It involves making difficult selections, placing priorities, and aligning the organization's efforts toward commonplace goals (Nityananda and Mohanty, 2012). A strategic chief should own the potential to assume and adapt to modifications in the commercial enterprise surroundings at the same time as efficiently coping with resources and expertise (Kuratko and Morris, 2018). This type of leadership is crucial for fostering innovation, improving competitiveness, and achieving sustainable increase. It sets the tone for the enterprise's culture and evokes personnel to perform at their excellent, contributing to the general achievement of the administrative device. Organizations adopt entrepreneurship as a strategic approach to enhance their competitiveness. Entrepreneurial organizations continuously develop and improve their products in response to changes in the environment and competition (Kantur, 2016). Strategic leadership combines the concepts of entrepreneurship and strategy. It involves practices that aim to identify and seize opportunities while striving for excellence and performance development (Alayoubi et al., 2020). Entrepreneurial strategies encompass the opportunities that organizations seek to obtain and exploit, serving as a pathway for organizational development. These strategies foster innovation and permeate the entire organization, promoting an entrepreneurial mindset and approach at all levels of management (Carvalho, 2021; Makinde and Agu, 2018). Entrepreneurial techniques are the spine of organizational fulfillment, fueling constant innovation and the improvement of clean techniques to drive overall performance upgrades. These strategies are the driving pressure at the back of an organization's aggressive part, empowering them to domesticate a way of life of creativity and embody calculated risks within the pursuit of latest merchandise, offerings, and marketplace ventures. By strategically identifying and seizing new opportunities in the marketplace, companies can outpace their opponents and obtain sustained superiority (Boudreaux, 2020).

1.1. Problem statement

Psychological capital is positive behavior exhibited by employees within organizations. It encompasses their confidence in successfully completing assigned tasks, optimism about the future and its uncertainties, and belief in their ability to persevere towards achieving goals (Raja et al., 2020). However, the constant changes in environmental conditions, gaps in employee expectations, and challenges in managing time within the workplace can lead to employee stress and the emergence of negative trends. These negative trends have the potential to significantly impact organizations, hindering their success and ability to achieve their goals. The trouble

of universities has come to be a global concern in contemporary generation, with societies making large efforts to deal with them and set up the vital controls and indicators for ensuring the excellent of present day universities. These universities intention to prepare human capital that can efficaciously make contributions to societal development, raise country wide economies, and increase universal productiveness and profits. In light of different factors consisting of globalization, competition, the virtual revolution, electronic control, and monetary crises, universities face numerous nearby and global challenges. To overcome these demanding situations and achieve a competitive benefit, universities need to adopt a strategic leadership technique that fosters innovation, creativity, performance, effectiveness, and excellence in performance. This approach guarantees their survival, capacity to compete, and readiness to stand future challenges. Saudi universities, mainly, are witnessing great development and location exceptional emphasis on the human detail as a crucial pillar in adapting to environmental adjustments. Therefore, this examine objectives to discover the contribution of mental capital to enhancing personnel' entrepreneurial strategies and talents inside Saudi universities.

1.2. The significance of the research

It's important to examine the relationship between different dimensions of psychological capital and enhancing entrepreneurial strategy skills. Doing so can provide a comprehensive framework that can lead to improved employee performance. Additionally, this study addresses a research gap by combining psychological capital variables with the enhancement of entrepreneurial strategy skills, which has been relatively unexplored in the existing literature. Thus, this research is a valuable addition to the field of HR and paves the way for further analysis and investigation by future researchers. The results of this study can guide decision-makers in the studied Saudi universities, highlighting the importance of the dimensions of psychological capital in enhancing employees' entrepreneurial strategy skills and emphasizing the importance of entrepreneurial strategies in improving performance levels. Ultimately, the research results can benefit the decision-making process of university officials and shed light on the role of entrepreneurship strategies in supporting and achieving quality indicators in contemporary Saudi university education, which is a topic of great importance in modern administrative and educational thinking.

1.3. Objectives

The objective of this research is to assess the contribution of psychological capital to the enhancement of personnel's entrepreneurial approach competencies in Saudi universities. This may be performed with the aid of analyzing the level of psychological capital among personnel, comparing the extent to which personnel interacts with entrepreneurial strategy talents, and determining the impact of psychological capital on the enhancement of those abilities. Additionally, they have a look at goals to research whether there are any statistically huge variations inside the improvement of psychological capital based totally on private and job-related

variables amongst personnel.

1.4. Literature review

Dolcos et al. (2021) examined the influence of psychological capital on work-related stress. They determined that psychological capital, which incorporates self-efficacy, resilience, desire, and optimism, has a positive influence on work-related stress. These in-man or woman tools can assist humans in dealing with their stress and enhancing their wellbeing. The study conducted by Niswaty et al. (2021) revealed that both realistic leadership and psychological capital directly predicted work engagement. Furthermore, realistic leadership was found to have an impact on psychological capital and work engagement. This suggests that psychological capital and personal traits play a crucial role in fostering commitment and dedication to work within an organization. It has been determined that purpose accomplishment and psychological capital of non-executive people can be enhanced by high-quality psychological training that specializes in growing psychological capital (Tam et al., 2020). It turned into discovered that aim-related self-efficacy anticipated intention success throughout the education manner, highlighting the significance of self-efficacy in achieving intended results.

Chitra and Karunanidhi (2018) looked into how psychological capital affected construction workers' engagement in and adherence to safety procedures. They discovered that resilience, hope, efficacy, and optimism are examples of psychological capital that positively and significantly influences safety-related behavior. It was discovered that the association between psychological capital and safety-related behavior is mediated by work engagement. This shows that psychological capital can help establish a secure and effective workplace. In a study on psychological capital in sports companies, Kim et al. (2017) discovered a substantial correlation between psychological capital and workplace proactivity, proficiency, adaptivity, and overall work performance across national and cultural boundaries. This demonstrates the significance and broad applicability of psychological capital in improving results connected to the workplace.

The practical consequences of psychological capital, such as its growth, good leadership, and innovative applications like the usage of video games and gamification approaches, are highlighted by Luthans and Youssef-Morgan (2017). Wang et al. (2017) investigated the influence of psychological capital on the development of health-protective behaviors. They discovered that psychological capital and self-leadership are important in encouraging health-protective behaviors including face mask use, social distancing, and hand washing. Self-leadership and health-protective activities have a favorable link that is mediated by psychological capital and coping self-efficacy. The aforementioned results underscore the capacity of psychological capital to foster health and welfare within professional environments. Another study by Albashiti et al. (2017) indicated that psychological capital partially mediated the relationship between authentic leadership and organizational commitment. These findings highlight the complex interplay between leadership, psychological capital, and work-related outcomes. In addition, the study conducted by Yildiz (2017), demonstrated that all dimensions of psychological

capital, as well as the dimensions of the personal trait model, have a positive and significant impact on organizational commitment and work contribution. Regarding entrepreneurial strategies, the study conducted by Cristo-Andrade and Ferreira (2018) found that knowledge and strategic entrepreneurship have indirect effects on stimulating new research and the formation of future visions. This suggests that these factors play a crucial role in promoting innovative and forward-thinking approaches. Additionally, the study by Godlewska and Morawska (2020) confirmed that governments provide clear support for productive entrepreneurship as a strategic direction. This highlights the importance of government initiatives in fostering entrepreneurial activities that contribute to economic growth and development.

1.5. Research questions

Research offers significant perspectives on the function of psychological capital in many settings; however, there is a deficiency in the body of literature that particularly discusses how psychological capital affects the development of entrepreneurial strategy competencies in Saudi academic institutions. To fully understand this topic and its consequences for entrepreneurship, more research is required. As a result, psychological capital is the subject of this study and how it affects Saudi universities' ability to develop entrepreneurship strategy skills. The axes of the independent variable (psychological capital) and the dependent variable (strategic entrepreneurship skills) were selected based on the literature on psychological capital and entrepreneurship. These choices are suitable for Saudi universities. For psychological capital, five axes were selected: The study model is constructed using five axes of entrepreneurship strategy skills, as illustrated in **Figure 1**.

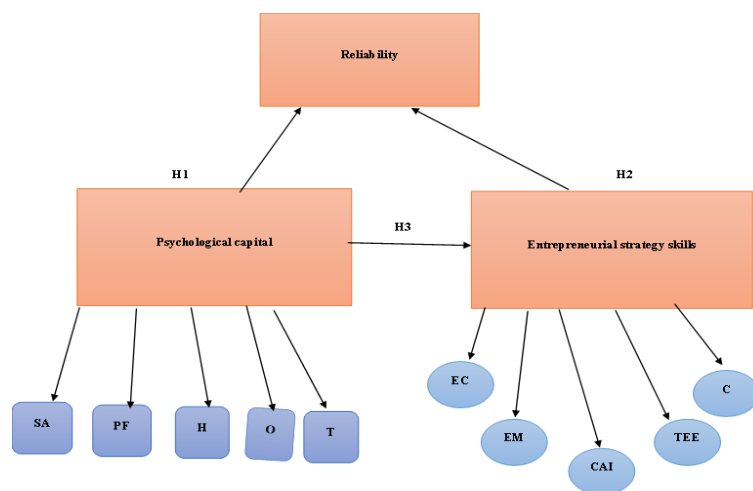


Figure 1. Research framework.

In order to diagnose and assess psychological capital as well as entrepreneurial strategy skills in this paper, we have posed several questions based on our understanding. After the sample was gathered and examined, it was discovered that certain universities had issues with entrepreneurship. Its weaknesses have been acknowledged, and efforts have been made to pinpoint them by polling Saudi university staff about their thoughts. Regarding the influence of psychological

capital on improving the strategic entrepreneurship abilities of Saudi university staff, five questions were developed (Q1–Q3).

The social and anthropological issues that psychological capital influences have been discussed in earlier research. These topics include organizational climate, organizational culture, work demands, job satisfaction, work engagement, and work efficiency. From the management of universities or other educational institutions' point of view, the matter is less clear. It is therefore interesting to discover that, even with broad keyword searches, the Scopus database yields relatively few research related to “entrepreneurship skills” and “psychological capital.” Universities are successful when their unseen, intangible, and unquantifiable spirit—which manifests itself in the shape of an organizational and psychological climate—is also met. This success extends beyond just meeting academic objectives. To prepare for the future, thorough research is required in both psychological capital and entrepreneurship. This is the main topic of the paper, which also addresses the following research questions:

Q1—What is the level of psychological capital among employees at King Faisal University?

Q2—To what extent do employees at King Faisal University engage in entrepreneurial strategy skills?

Q3—How does psychological capital contribute to enhancing the entrepreneurial strategy skills of employees at King Faisal University?

2. Materials and methods

2.1. Research sample

The study community included 1614 administrative staff at King Faisal University. A sample of 530 individuals, representing 32.83% of the study community, were selected for study. The research used a descriptive approach, specifically surveying. **Table 1** describes the sample of the study based on personal and functional variables.

2.2. Research instruments

Two questionnaires were utilized in the study. The first questionnaire aimed to assess the level of psychological capital among employees at King Faisal University. It consisted of 25 statements, and a three-point Likert scale was used to measure the responses of the study sample. The questionnaire encompassed five different dimensions: self-ability, psychological flexibility, hope, optimism, and confidence (refer to Appendix A for details). The second questionnaire aimed to evaluate the extent to which employees practice entrepreneurial strategy skills at King Faisal University. It comprised 26 statements, and a three-point Likert scale was employed to measure the responses of the study sample. The questionnaire encompassed five different dimensions: entrepreneurial culture, entrepreneurial mindset, creativity and innovation, external environment, and competitiveness (refer to Appendix B for details). And the questionnaires used in this study consist of two main sections: demographic information and questions designed to measure the research hypotheses.

The development of the questionnaire framework was based on established research foundations, as depicted in **Figure 1**. The questionnaire items were derived from a preliminary study and validated scales. To ensure the content validity of the questionnaire, its content was thoroughly reviewed. In this study, a three-level Likert scale was utilized to assess participants' responses, providing a balanced approach to capturing their perspectives on the survey items. This methodology was chosen to facilitate a clear understanding of the respondents' viewpoints while maintaining manageable response options. The validity and reliability of the questionnaires were established by calculating the internal consistency coefficient using Cronbach's alpha. The overall reliability coefficient was found to be 0.81 for the first questionnaire and 0.79 for the second questionnaire. These coefficients indicate satisfactory reliability for this type of study. The Basic study was carried out over a period of time, specifically from 8 August to 20 September 2023.

Table 1. Description of the study sample.

Variables	Category	The sample	The number	Percentage
Type	Males	530	335	63.20
	Females		195	36.80
Age categories	Less than 30 years old	530	93	17.55
	From 30–39 years		162	30.57
	From 40–49 years old		179	33.77
	50 years and over		96	18.11
Qualification	University	530	375	70.76
	Postgraduate		155	29.24
Years of experience	Less than 5 years	530	73	13.78
	From 5–10 years		158	29.81
	From 10–20 years		237	44.71
	More than 20 years		62	11.70
Number of training courses	Not attending any training courses	530	56	10.57
	Two courses or less		95	17.92
	From 3:5 courses		179	33.78
	More than 5 courses		200	37.73

2.3. Common method variation

Given that this examines trusted self-mentioned information, we employed a single-thing method to test for commonplace method variance (Podsakoff et al., 2003). Common technique variance is without delay associated with the measurement approach but cannot be inferred from the construction of the measurement item itself (Podsakoff et al., 2003; Wang et al., 2022), while measurement mistakes can arise. To cope with the problem of unusual method variance, we applied a strategy. The investigation is conducted under conditions of confidentiality and anonymity to ensure the privacy of individuals' personal records at some stage in the records series section. The questionnaire was intentionally numbered to permit members enough time to relax among every page, thereby

decreasing the impact of the unusual method variance resulting from the repeated use of the equal measure throughout unique time intervals (Podsakoff et al., 2003; Wang et al., 2022). Additionally, we took measures to mitigate the unusual approach variance by ensuring that survey objects were clear and concise to decrease confusion and respondent bias. Furthermore, the study team acquired training to interact with contributors in a consistent and impartial manner, avoiding any inadvertent impact on their responses. These measures enhanced the validity of the collected facts and advanced the general rigor of the examination. By implementing these techniques, common approach biases are minimized, resulting in a higher level of accuracy and reliability within the study’s findings.

2.4. Statistical analysis

The collected data were analyzed using various statistical techniques, including relative weight, chi-squares, mean responses, Pearson, and Cronbach correlation coefficients, which were used to assess the gathered data. These statistical coefficients were computed using IBM Corporation’s SPSS 26 social sciences statistical program, and the significance threshold was established at 0.05. This gave the analysis an extra degree of credibility.

3. Results

Figure 2 illustrates the average response for the level of psychological capital among employees at King Faisal University. The figure presents five axes: self-ability (SA) with an average response of 75.07, psychological flexibility (PF) with an average response of 74.76, hope (H) with an average response of 77.41, optimism (O) with an average response of 76.74, and trust (T). The overall average response for the questionnaire was 77.76. These results indicate that employees at King Faisal University exhibit a relatively high level of psychological capital.

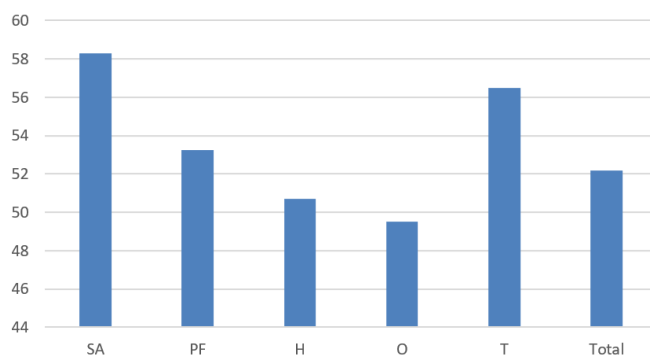


Figure 2. Average response to a questionnaire on the level of psychological capital among employees at King Faisal University.

Table 2 presents the findings regarding the level of psychological capital among employees at King Faisal University. The X^2 values obtained from the questionnaire data indicate statistical significance ($P < 0.05$). The table includes the relative weight, average response, and chi-square values for each item within the five dimensions: self-ability (SA), psychological flexibility (PF), hope (H), optimism (O), and trust (T). For the self-ability dimension, the average response is 75.07. Item 6

received the highest average response, indicating that employees have a strong interest in building positive relationships at work. Regarding psychological flexibility, the average response is 74.76. Item 7 received the highest average response, suggesting that employees are prepared to acknowledge and rectify mistakes in their work. In terms of Hope, the average response is 77.41. Item 15 received the highest average response, indicating that employees maintain a practical approach and do not feel hopeless, even in challenging circumstances. For optimism, the average response is 76.74. Item 20 received the highest average response, suggesting that employees experience happiness when they can demonstrate creativity in their work. Regarding trust, the average response is 84.82. Item 22 received the highest average response, indicating that employees feel confident when entrusted by management to find solutions to business problems. The overall average response for the entire questionnaire is 77.76, indicating a relatively high level of psychological capital among employees at King Faisal University. These results provide insights into the specific dimensions of psychological capital that are strong or require improvement within the organization. The chi-square values can be used to determine the significance of the relationship between each item and its respective dimension. Further analysis and interpretation can be conducted by considering the specific numerical values for each item and dimension. **Figure 3** illustrates the findings regarding the extent to which employees at King Faisal University practice entrepreneurial strategy skills. The figure displays five dimensions: entrepreneurial culture (EC) with an average response of 62.64, entrepreneurial mentality (EM) with an average response of 61.10, creativity and innovation (CAI) with an average response of 60.16, the external environment (TEE) with an average response of 63.23, and competitiveness (C) with an average response of 56.74. The overall average response for the entire questionnaire was 60.70, indicating a moderate level of entrepreneurial strategy skills among the employees. These results provide insights into the specific dimensions of entrepreneurial strategy skills that are relatively strong or may require improvement within the organization.

Table 2. Relative weight, average response, and X^2 for the level of psychological capital among employees at King Faisal University ($n = 530$).

No.	Item	Response			Relative weight	Average response	X^2
		Yes	To some extent	No			
The first axis: self-ability (SA)							
1	Do you believe that your efficient performance of your work benefits society	254	163	113	1201	75.53	57.85
2	Do you have the ability to apply cognitive resources and innovative action plans	248	139	143	1165	73.27	43.25
3	You have the ability to innovate at work, even if its results include risk	198	164	168	1090	68.55	3.91
4	I do my best to convince my co-workers of the importance of creative ideas	222	159	149	1133	71.26	17.73
5	You can present opinions and suggestions regarding work with confidence	246	167	117	1189	74.78	47.89
6	She is interested in human relations at work	348	158	24	1384	87.04	300.06
The average response of the axis						75.07	

Table 2. (Continued).

No.	Item	Response			Relative weight	Average response	X ²
		Yes	To some extent	No			
The second axis: psychological flexibility (PF)							
7	I expect mistakes to happen in my work and am prepared to correct them	272	179	79	1253	78.81	105.47
8	I have many ways to achieve business goals	249	199	82	1227	77.17	83.17
9	I can deal with all behaviors of co-workers	144	277	109	1095	68.87	88.94
10	Dealing with work problems with constant perseverance to explore their causes	169	239	122	1107	69.62	39.24
11	I have the ability to face work pressures and quickly return to normal	286	159	85	1261	79.31	116.99
The average response of the axis						74.76	
The third axis: Hope (H)							
12	There is a motivation within me to work and I have perseverance in achieving goals	249	249	32	1277	80.31	177.69
13	I feel that difficult tasks at work are the foundation of success	148	302	80	1128	70.94	146.46
14	Do you feel that you have achieved great success in your work	149	322	59	1150	72.33	202.26
15	My practical approach is not to feel hopeless, no matter how difficult the circumstances are	348	168	14	1394	87.67	316.36
16	I can overcome difficult times because I have been through more difficult situations	248	179	103	1205	75.79	59.55
The average response of the axis						77.41	
Fourth axis: optimism (O)							
17	I often look on the bright side of my work	314	189	27	1347	84.72	234.41
18	Optimistic about your future career	147	299	84	1123	70.63	138.30
19	I constantly pursue my work goals with energy and optimism	178	255	97	1141	71.76	70.67
20	I feel happy whenever I am creative in my work	359	146	25	1394	87.67	323.71
21	I can overcome systems and methods that hinder work	167	232	131	1096	68.93	29.66
The average response of the axis						76.74	
The fifth axis: trust (T)							
22	I feel confident when management entrusts me with the task of finding solutions to business problems	359	169	2	1417	89.12	361.20
23	I feel self-confident when representing the university	317	158	55	1322	83.14	197.23
24	When I feel self-confident, I find myself at the peak of my success in my work	284	168	78	1266	79.62	120.74
25	I feel confident to help colleagues with work-related information	351	158	21	1390	87.42	311.17
The average response of the axis						84.82	
Average questionnaire response						77.76	

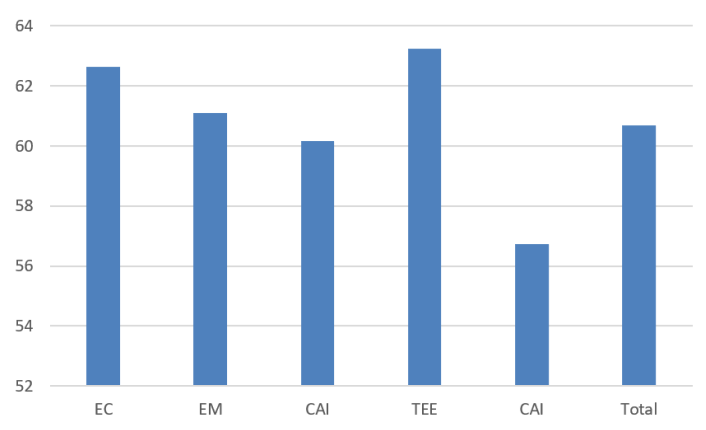


Figure 3. Average response to a questionnaire on the degree to which employees practice entrepreneurial strategy skills at King Faisal University.

Table 3 presents the findings regarding the degree to which employees at King Faisal University practice entrepreneurial strategy skills. The X^2 values obtained from the questionnaire data indicate statistical significance ($P < 0.05$). The table includes the relative weight, average response, and chi-square values for each item within the five dimensions: entrepreneurial culture (EC), entrepreneurial mentality (EM), creativity and innovation (CAI), the external environment (TEE), and competitiveness (C). For entrepreneurial culture (EC), the average response is 62.64. Item 5 received the highest average response, indicating a shift towards organizational creativity and technology at the university. Regarding entrepreneurial mentality (EM), the average response is 61.10. Item 6 received the highest average response, suggesting that previous effective decisions are utilized to drive work development. In terms of creativity and innovation (CAI), the average response is 60.16. Item 16 received the highest average response, indicating that teamwork is enhanced, and diversity in quality is increased. For the external environment (TEE), the average response is 63.23. Item 18 received the highest average response, suggesting that the necessary measurements are available to demonstrate the university's impact on the environment and society. Regarding competitiveness (C), the average response is 56.74. Item 25 received the highest average response, indicating that job turnover is measured as an indicator of employee morale. The overall average response for the entire questionnaire is 60.70, indicating a moderate level of entrepreneurial strategy skills among employees at King Faisal University. These results provide insights into the specific dimensions of entrepreneurial strategy skills that are strong or require improvement within the organization. The chi-square values can be used to determine the significance of the relationship between each item and its respective dimension. **Table 4** shows the correlation coefficients between the use of smart algorithms and the development of the operational performance of sports facilities in the Kingdom of Saudi Arabia.

Table 3. Relative weight, average response and X^2 to survey the degree to which employees practice entrepreneurial strategy skills at King Faisal University ($n = 530$).

No.	Item	Response			Relative weight	Average response	X^2
		Yes	To some extent	no			
The first axis: entrepreneurial culture (EC)							
1	The administration has built an entrepreneurial culture in which employees feel free to try new ideas	99	183	248	911	57.30	63.17
2	Encouraging management to think independently	104	191	235	929	58.43	50.31
3	The components of the prevailing organizational culture and the factors influencing it are known in order to invest in them	67	168	295	832	52.33	147.76
4	Management establishes the values and beliefs that support leadership performance	114	204	212	962	60.50	33.52
5	There is change in terms of the shift towards organizational creativity and technology	314	188	28	1346	84.65	232.59
The average response of the axis						62.64	
The second axis: entrepreneurial mentality (EM)							
6	Previous decisions that have proven effective are taken advantage of to develop the work	161	180	189	1032	64.91	2.31
7	Management supports the realization of difficult ideas and does not stop at a specific level of success	73	155	302	831	52.26	152.40
8	Basic strategies are applied to develop and improve performance in all businesses	122	218	190	992	62.39	27.59
9	There are indicators of the extent to which customers' needs and aspirations are met on an ongoing basis	147	224	159	1048	65.91	19.43
10	There is an interest in mathematical thinking and moving away from traditional management principles	108	208	214	954	60.00	40.14
The average response of the axis						61.10	
The third axis: creativity and innovation (CAI)							
11	Problems are transformed into opportunities that can be used to develop work	142	158	230	972	61.13	24.88
12	Innovative ideas are embraced, continuous improvements are made, and not succumb to routine	91	137	302	849	53.40	139.36
13	Innovation in management systems, control methods and organizational structure is promoted at work	107	203	220	947	59.56	42.03
14	The administration adopts everything that is pioneering in the field of work	55	228	247	868	54.59	126.71
15	New and innovative programs are being implemented, although their results are not guaranteed	141	186	203	998	62.77	11.62
16	Teamwork is enhanced and diversity in quality is increased	194	188	148	1106	69.56	7.08
The average response of the axis						60.16	
The fourth axis: the external environment (TEE)							
17	There is the ability to anticipate environmental variables and respond to them	129	188	213	976	61.38	21.06
18	The necessary measurements are available to demonstrate the extent of the university's impact on the environment and society	201	153	176	1085	68.24	6.52
19	We are working to ensure that the services provided are new and serve the surrounding environment	199	176	155	1104	69.43	5.48

Table 3. (Continued).

No.	Item	Response			Relative weight	Average response	X ²
		Yes	To some extent	no			
20	Work is done to link the surrounding environment and work in presenting innovative works	121	220	189	992	62.39	29.03
21	The ability to constantly change services marketing practices exists	106	135	289	877	55.16	109.52
The average response of the axis						63.23	
The fifth axis: competitiveness (C)							
22	Employees' self-confidence is increased and their ability to take responsibility increases	100	124	306	854	53.71	143.65
23	There is emotional participation and awareness of mutual social relationships between employees	116	199	215	961	60.44	31.97
24	New skills are acquired that are reflected in the university	157	147	226	991	62.33	20.95
25	Job turnover is measured as an indicator of employee morale	77	128	325	812	51.07	194.18
26	Training needs are identified and advanced programs are provided for employees	114	135	281	893	56.16	93.67
The average response of the axis						56.74	
Average questionnaire response						60.70	

Table 4. Percentage of the contribution of psychological capital in enhancing the entrepreneurial strategy skills of employees at King Faisal University (*n* = 530).

Psychological capital	Entrepreneurial strategy skills				
	Entrepreneurial culture (EC)	Entrepreneurial mentality (EM)	Creativity and innovation (CAI)	The external environment (TEE)	Competitiveness (C)
1 self-ability (SA)	63.15	73.25	66.14	67.36	68.25
2 psychological flexibility (PF)	75.14	79.02	68.68	63.88	73.24
3 Hope (H)	71.25	74.36	70.21	62.14	70.45
4 optimism (O)	69.14	72.01	75.16	77.25	71.15
5 trust (T)	77.01	68.25	74.11	74.16	68.02

Table 4 presents the percentage contribution of psychological capital in enhancing the entrepreneurial strategy skills of employees at King Faisal University. The table displays the contribution of each dimension of psychological capital (self-ability, psychological flexibility, hope, optimism, and trust) to different aspects of entrepreneurial strategy skills (entrepreneurial culture, entrepreneurial mentality, creativity and innovation, the external environment, and competitiveness). For self-ability (SA), the percentage contribution to entrepreneurial culture is 63.15%, to entrepreneurial mentality is 73.25%, to creativity and innovation is 66.14%, to the external environment is 67.36%, and to competitiveness is 68.25%. Regarding psychological flexibility (PF), the percentage contribution to entrepreneurial culture is 75.14%, to entrepreneurial mentality is 79.02%, to creativity and innovation is 68.68%, to the external environment is 63.88%, and to competitiveness is 73.24%. For hope (H), the percentage contribution to entrepreneurial culture is 71.25%, to entrepreneurial mentality is 74.36%, to creativity and innovation is 70.21%, to the external environment is 62.14%, and to competitiveness is 70.45%. Regarding

optimism (O), the percentage contribution to entrepreneurial culture is 69.14%, to entrepreneurial mentality is 72.01%, to creativity and innovation is 75.16%, to the external environment is 77.25%, and to competitiveness is 71.15%. For trust (T), the percentage contribution to entrepreneurial culture is 77.01%, to entrepreneurial mentality is 68.25%, to creativity and innovation is 74.11%, to the external environment is 74.16%, and to competitiveness is 68.02%. These results highlight the relationship between different dimensions of psychological capital and the enhancement of entrepreneurial strategy skills. Each dimension contributes differently to various aspects of entrepreneurial strategy skills. For example, trust has a higher contribution to entrepreneurial culture and creativity and innovation, while psychological flexibility has a higher contribution to entrepreneurial mentality. Understanding these relationships can help identify the specific dimensions of psychological capital that have a stronger impact on different aspects of entrepreneurial strategy skills. This information can be utilized to develop targeted interventions and strategies to enhance entrepreneurial skills among employees at King Faisal University.

4. Discussion

Based on **Table 2**, it is evident that the level of psychological capital among employees at King Faisal University is moderate. This can be attributed to the negligence of certain administrative leaders in Saudi universities, particularly King Faisal University, regarding the concept and significance of psychological capital (Karimi et al. 2023). Psychological capital is a crucial and influential resource in achieving efficiency and adding value to the university (Sullivan et al., 2012). It plays a vital role in fostering innovation and renewal by transforming unique knowledge into economic value. The consequences of this oversight cannot be accurately determined, but it places the university in a weak position in terms of performance and accomplishments in the eyes of the state. Furthermore, some leaders insist on strictly adhering to laws, regulations, and procedures without considering or welcoming suggestions. This lack of trust between management and employees stems from the belief among leaders that workers lack sufficient qualifications, leading to the dismissal of workers' opinions, even if they are creative. Consequently, there is a lack of motivation on the part of management to bear the costs associated with creative work. Additionally, employee attrition, whether through retirement, resignation, or transfer to other departments, is a common occurrence (Davidescu et al., 2020). In summary, the moderate level of psychological capital among employees at King Faisal University can be attributed to the neglect of its importance by certain administrative leaders. This has resulted in a lack of trust, limited employee input, and a failure to recognize and support creative work, ultimately impacting the university's performance and employee retention.

The study (Alessandri et al., 2018; Baykal and Zehir, 2018; Nguyen and Ngo, 2020; Ngo, 2021; Udin and Yuniawan, 2020; Rego et al., 2016) confirmed the existence of a direct positive moral relationship between capital psychological and job performance. Numerous studies have consistently highlighted the significance of

psychological capital in promoting desirable work behaviors. Alessandri et al. (2015) underscored the importance of psychological capital in alleviating professional stress and fostering job engagement. Additionally, Nikpay et al. (2014) emphasized the impact of psychological capital on individuals' behaviors within the work environment. These studies collectively emphasize the positive influence of psychological capital on various aspects of work-related outcomes. Etebarian et al. (2012) emphasized the role of psychological capital in enhancing organizational success and reducing work pressure and psychological anxiety among individuals.

Psychological capital holds significant importance due to its positive impact on various management elements. Research has shown that its dimensions are associated with job performance (Xu, 2017) and individuals' behaviors, such as happiness at work (Plessis and Boshoff, 2018). The presence of psychological capital and its dimensions can contribute to individuals' performance at work, serving as a long-term investment that enables organizations to achieve their goals and gain a competitive advantage. It also helps in preventing undesirable behaviors that may lead to financial and administrative corruption in the workplace (Ozturk and Erkanli, 2020). Furthermore, psychological capital plays a role in reducing work pressure, anxiety, and psychological tension experienced by employees, enhancing their awareness of the quality of work life. This, in turn, leads to the achievement of organizational goals and increased development and profits (Wirawan and Jufri, 2020). The presence of psychological capital within a specific group of employees reflects their mental capacity and competencies to generate ideas related to creative and strategic development of systems, activities, and processes (Chen et al., 2023; Dóci et al., 2023). This ensures the possession of sustainable knowledge and skills.

Table 3 indicates that the degree of practicing entrepreneurial strategy skills among employees at King Faisal University is weak. This can be attributed to several obstacles that hinder the implementation of creative opinions and ideas. One major obstacle is the limited availability of financial resources required to execute these ideas. Additionally, there are leaders within the university who resist change and prefer to follow routine procedures, creating a culture of fear among employees who may face punishment if they take personal responsibility for implementing innovative ideas against the wishes of their superiors. This discourages employees from sharing their creative ideas and prevents leaders from providing the necessary support, whether it be moral or material. Furthermore, although there is an executive plan for entrepreneurial strategies within the university, it is not widely communicated to all employees. This lack of transparency and inclusivity in the plan may lead to the fulfillment of some individuals' ambitions while neglecting the aspirations of others. Additionally, while employee participation in courses and conferences related to important societal issues and development plans is a political goal, it may be limited to a specific group of workers, excluding others from the opportunity to contribute and benefit from these initiatives. The weak degree of practicing entrepreneurial strategy skills among employees at King Faisal University can be attributed to obstacles such as limited financial resources, resistance to change from some leaders, fear of punishment, lack of transparency in the implementation plan, and limited participation opportunities for employees. Addressing these obstacles and fostering a supportive and inclusive environment can

help enhance the entrepreneurial strategy skills of employees and promote a culture of innovation within the university. According to a study by Seikkula-Leino et al. (2020), the implementation of entrepreneurial strategy in a university of applied sciences was successful, but there was a need for further development in internal communication. Another study by Casanovas et al. (2022) found that factors such as gender, access to university studies, and knowledge of English were associated with differences in entrepreneurial talent among students. In a study by Sutangsa et al. (2019) conducted on prospective retired employees, it was found that training in entrepreneurial expertise had positive effects, but aspects related to financial management needed more attention. A systematic literature review by Lang and Baltes (2019) highlighted the importance of entrepreneurial employees for innovation and change in established companies. Lastly, a study by Erić-Nielsen et al. (2019) conducted in Serbian companies found that employees' awareness of the clarity and flexibility of entrepreneurial strategy varied based on gender, education level, and seniority. These studies provide insights into various aspects of entrepreneurial strategy implementation, including internal communication, individual factors influencing entrepreneurial talent, the importance of training and financial management, the role of entrepreneurial employees in innovation, and the impact of gender, education level, and seniority on employees' awareness of entrepreneurial strategy.

The limited practice of entrepreneurial strategy skills among employees at King Faisal University can be attributed to various obstacles. Bucăța and Tileagă (2023) identified limited financial resources as one of the barriers. Azid (2023) highlighted resistance to change from some leaders, while Erlina and Hayati (2023) pointed out that fear of punishment can hinder the development of entrepreneurial strategy skills. Additionally, Pokhrel (2023) mentioned that a lack of transparency in the implementation plan can be an obstacle, and limited participation opportunities for employees can also contribute to the weak degree of practicing these skills. To enhance employees' entrepreneurial strategy skills and foster a culture of innovation, it is important to address these obstacles and create a supportive and inclusive environment within the university.

Management plays a crucial role in organizations by developing qualified human resources and facilitating adaptation to rapid changes (Nityananda and Mohanty, 2012). To achieve this, organizations require an effective administrative system that improves outputs and achieves organizational goals through optimal utilization of capabilities and resources (Kuratko and Morris, 2018). This involves effectively leveraging both human and material elements within the organization, leading to enhanced efficiency and effectiveness (Nikpay et al., 2014). To successfully accomplish its goals, the administrative system must possess qualities and characteristics that enhance efficiency, such as strategic leadership (Ogunkoya, 2018). Strategic leadership entails setting a clear direction for the organization, aligning it with strategic goals, making informed decisions, managing resources effectively, and inspiring and motivating employees to achieve organizational objectives. **Table 4** provides strong evidence supporting the significant contribution of psychological capital to enhancing employees' entrepreneurial strategy skills at King Faisal University. The dimensions of psychological capital play a crucial role

in improving these skills, emphasizing the need to focus on improvement processes and develop institutional work through the utilization of psychological capital. Studies conducted by Alessandri et al. (2018), Baykal and Zehir (2018), Nguyen and Ngo (2020), Ngo (2021), and Udin and Yuniawan (2020), have confirmed the positive relationship between psychological capital and job performance. Additionally, research by Etebarian et al. (2012) highlights the role of psychological capital in enhancing organizational success, reducing work-related pressures, and alleviating psychological anxiety. Alessandri et al. (2015) emphasize its importance in reducing professional stress and fostering job engagement, while Nikpay et al. (2014) highlighted the influence of psychological capital on individuals' behavior within the work environment. Furthermore, a study by Yildiz (2017) indicates that all dimensions of psychological capital, along with dimensions of the personality trait model, have a positive moral impact on organizational commitment and work contribution. These findings collectively underscore the significance of psychological capital in enhancing employees' entrepreneurial strategy skills, job performance, and overall well-being.

Chen et al. (2023) conducted a study that demonstrated the positive influence of psychological capital on innovation performance, knowledge sharing behavior, and the reduction of knowledge hiding behavior in entrepreneurial teams. Similarly, Xu (2023) found that psychological capital effectively helps entrepreneurs navigate through the impact of the COVID-19 crisis by formulating crisis intervention strategies. These studies collectively suggest that psychological capital plays a crucial role in enhancing employees' entrepreneurial strategy skills, leading to positive outcomes such as growth orientation, innovation performance, work engagement, and crisis management capabilities.

5. Conclusions

The study aimed to evaluate the influence of psychological capital on improving the entrepreneurial strategy skills of employees within Saudi universities. With a participant pool of 530 individuals, data was gathered through the use of two different questionnaires. The results revealed that employees displayed a moderate level of psychological capital, while their practice of entrepreneurial strategy skills was deemed weak. Moreover, the study demonstrated that psychological capital plays a significant role in enhancing the entrepreneurial strategy skills of employees. Notably, there were notable variations in psychological capital based on specific personal and functional factors. The findings underscore the importance of nurturing psychological capital as a means to fortify and enhance employees' entrepreneurial strategy skills. By providing employees with training on methods to cultivate psychological capital, universities can better define their vision and future trajectory. Ultimately, this approach can lead to a noteworthy advancement in employees' entrepreneurial strategy skills, contributing to the overall success of the universities. In short, this study underscores the substantial impact of psychological capital on augmenting the entrepreneurial strategy skills of employees within Saudi universities, signaling that fostering psychological capital can yield improved performance and overall success.

Limitation, future research directions

This study has certain drawbacks, despite its importance. It is important to acknowledge the drawbacks of this study. The relatively small sample size presents a potential limitation, which may restrict the generalizability of its findings. However, it is worth noting that this method could serve as a template for future research involving larger and more diverse samples from across Saudi Arabia. Moreover, the study's focus on a few universities in the Kingdom of Saudi Arabia limits the broadness of its scope. It is suggested that future research could expand its scope to encompass various regions within the Kingdom and explore different educational domains. Another limitation to consider is the reliance on survey questionnaires, which may have prompted biased responses and hindered the comprehensiveness of certain indicators. Nevertheless, despite these constraints, the study lays a solid groundwork for further exploration in this area.

Future studies can focus on the following points: analysing the relationship between psychological capital and job satisfaction among workers in the Kingdom of Saudi Arabia. Comparing entrepreneurship skills and job satisfaction in different sectors. Comparison of entrepreneurship skills between men and women in the Kingdom of Saudi Arabia. These future research directions can provide a more comprehensive understanding of the factors impacting job satisfaction and entrepreneurship skills in the Saudi Arabian context.

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Appendix A

The appendix includes a questionnaire about the level of psychological capital among employees at King Faisal University.

Table A1. An applied study on the level of psychological capital.

No.	Item	Response		
		Yes	To some extent	No
The first axis: self-ability (SA)				
1	Do you believe that your efficient performance of your work benefits society			
2	Do you have the ability to apply cognitive resources and innovative action plans			
3	You have the ability to innovate at work, even if its results include risk			
4	I do my best to convince my co-workers of the importance of creative ideas			
5	You can present opinions and suggestions regarding work with confidence			
6	She is interested in human relations at work			
The second axis: psychological flexibility (PF)				
7	I expect mistakes to happen in my work and am prepared to correct them			
8	I have many ways to achieve business goals			
9	I can deal with all behaviors of co-workers			
10	Dealing with work problems with constant perseverance to explore their causes			
11	I have the ability to face work pressures and quickly return to normal			
The third axis: Hope (H)				
12	There is a motivation within me to work and I have perseverance in achieving goals			
13	I feel that difficult tasks at work are the foundation of success			
14	Do you feel that you have achieved great success in your work			
15	My practical approach is not to feel hopeless, no matter how difficult the circumstances are			
16	I can overcome difficult times because I have been through more difficult situations			
The fourth axis: optimism (O)				
17	I often look on the bright side of my work			
18	Optimistic about your future career			
19	I constantly pursue my work goals with energy and optimism			
20	I feel happy whenever I am creative in my work			
21	I can overcome systems and methods that hinder work			
The fifth axis: trust (T)				
22	I feel confident when management entrusts me with the task of finding solutions to business problems			
23	I feel self-confident when representing the university			
24	When I feel self-confident, I find myself at the peak of my success in my work			
25	I feel confident to help colleagues with work-related information			

Appendix B

The appendix includes a questionnaire for enhancing the skills of entrepreneurial strategies for employees at King Faisal University.

Table B1. An applied study on enhancing entrepreneurial strategy skills.

No.	Item	Response		
		Yes	To some extent	No
The first axis: entrepreneurial culture (EC)				
1	The administration has built an entrepreneurial culture in which employees feel free to try new ideas			
2	Encouraging management to think independently			
3	The components of the prevailing organizational culture and the factors influencing it are known in order to invest in them			
4	Management establishes the values and beliefs that support leadership performance			
5	There is change in terms of the shift towards organizational creativity and technology			
The second axis: entrepreneurial mentality (EM)				
6	Previous decisions that have proven effective are taken advantage of to develop the work			
7	Management supports the realization of difficult ideas and does not stop at a specific level of success			
8	Basic strategies are applied to develop and improve performance in all businesses			
9	There are indicators of the extent to which customers' needs and aspirations are met on an ongoing basis			
10	There is an interest in mathematical thinking and moving away from traditional management principles			
The third axis: creativity and innovation (CAI)				
11	Problems are transformed into opportunities that can be used to develop work			
12	Innovative ideas are embraced, continuous improvements are made, and not succumb to routine			
13	Innovation in management systems, control methods and organizational structure is promoted at work			
14	The administration adopts everything that is pioneering in the field of work			
15	New and innovative programs are being implemented, although their results are not guaranteed			
16	Teamwork is enhanced and diversity in quality is increased			
The fourth axis: the external environment (TEE)				
17	There is the ability to anticipate environmental variables and respond to them			
18	The necessary measurements are available to demonstrate the extent of the university's impact on the environment and society			
19	We are working to ensure that the services provided are new and serve the surrounding environment			
20	Work is done to link the surrounding environment and work in presenting innovative works			
21	The ability to constantly change services marketing practices exists			
The fifth axis: competitiveness (C)				
22	Employees' self-confidence is increased and their ability to take responsibility increases			
23	There is emotional participation and awareness of mutual social relationships between employees			
24	New skills are acquired that are reflected in the university			
25	Job turnover is measured as an indicator of employee morale			
26	Training needs are identified and advanced programs are provided for employees			