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"The Reality of Academic Leadership Practices in Promoting a Culture of Entrepreneurship and its Impact on Adopting the Entrepreneurial University Model"

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ملخص البحث

تهدف هذه الدراسة إلى التحقق من واقع ممارسات القيادات الأكاديمية لتعزيز ثقافة ريادة الأعمال وأثرها في تبني نموذج الجامعات الريادية، واختبار ما إذا كان هنالك فروق بين متوسطات استجابات القيادات الأكاديمية وفقاً لبعض الخصائص الوظيفية مع الكشف عن أهم التحديات التي تواجه القيادات الأكاديمية لتعزيز ثقافة ريادة الأعمال، ولتحقيق أهداف الدراسة، تم استخدام المنهج الوصفي التحليلي، والاستبانة كأداة لجمع البيانات بحجم عينة بلغت (118) قائد أكاديمياً، وللإجابة على تساؤلات وفرضيات الدراسة تم استخدام أساليب تحليل التباين الآحادي واختبار (T) لعينة واحدة وتحليل المسار والمتضمنة بالحزم الإحصائية AMOS وSPSS . وتوصلت نتائج الدراسة إلى ما يلي: وجود ممارسة بدرجة عالية للقيادات الأكاديمية لتعزيز ثقافة ريادة الأعمال في مجالات الرؤية واستراتيجية الجامعة، والقيادة والدعم الجامعي، وجود ممارسة بدرجة أقل لبُعد التعليم والشراكات. وجود أثر للقيادات الأكاديمية في تعزيز ثقافة ريادة الأعمال في بُعد الرؤية واستراتيجية الجامعة والقيادة والدعم الجامعي، وعدم وجود أثر لبُعد للتعليم والشراكات. اتضح ايضاً عدم وجود فروق في متوسطات استجابات عينة الدراسة باختلاف المتغيرات الديموغرافية. وجود تحديات بدرجة مرتفعة للقيادات الأكاديمية في تعزيز ثقافة ريادة الأعمال. هذا وبناءً على نتائج الدراسة تم تقديم العديد من التوصيات والمقترحات.

Abstract:

This study aims to verify the reality of academic leadership practices to promote the culture of entrepreneurship and their impact on adopting the model of entrepreneurial universities, and to test whether there are differences between the average responses of academic leaders according to some job characteristics, while revealing the most important challenges facing academic leaders to promote the culture of entrepreneurship. To achieve the objectives of the study, the descriptive analytical approach was used, and the questionnaire was used as a tool to collect data with a sample size of (118) academic leaders to answer the study hypotheses, the methods of One-Way Anova analysis, One-sample (T) test, and path analysis were employed, which are included in the AMOS and SPSS statistical packages, were used. The study findings include: a higher level of practice of academic leadership to promote an entrepreneurial culture in the areas of university vision and strategy, leadership and university support, and a lower level of practice of the education and partnership dimension. The presence of an impact of academic leadership in promoting an entrepreneurial culture, the university's vision and strategy, and for university leadership and support, the absence of an impact of education and partnerships. There were no differences in the averages of the study sample's responses depending on demographic variables. There are high challenges for academic leaders in promoting an entrepreneurial culture. Based on the results of the study, many recommendations and proposals were made.

Keywords: Academic leadership – Culture of entrepreneurship – Entrepreneurial university.

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Introduction:

Entrepreneurship has become the core of growing interest day after day in various parts of the world, as a result of the economic and social impact it achieves on the individual and society. Developed countries have focused on entrepreneurship as a result of their contributions to achieving the Sustainable Development Goals, and have taken the initiative to present many initiatives, programs, plans, procedures and activities that enhance the culture of entrepreneurship and interest in developing it Striving to provide a suitable environment for entrepreneurs to implement their ideas and start their own projects, while providing everything they need for continuity and ensuring the survival of their projects (Al-Hadidi et al., 2016).

In light of this increasing economic competition, learning entrepreneurship has become an urgent requirement to keep pace with the ongoing and changing transformations and developments in the labor market. From this standpoint, entrepreneurship education began to be included in academic courses and programs at universities, within the framework of educational philosophies and policies aimed at consolidating the culture of entrepreneurship at various educational levels in many countries of the world (Shehata, 2013).

In this context, a study by (Amman, Wolfgang & Villegas, Allan,2025) emphasized the importance of the role of universities in preparing students for entrepreneurial careers, and that this role is pivotal for academic leaders and faculty members together, with the aim of developing the spirit of entrepreneurship by developing curricula and providing appropriate support, and effectively integrating the concept of entrepreneurship into various academic programs.

1. 1. Study problem:

There is no doubt that the Kingdom's Vision (2030) pays great attention to entrepreneurship and innovation, as they are two main pillars in achieving its goals. In this context, the vision focused, in the dimension of a prosperous economy, on continuing investment in education and training and focusing on innovation in technologies and entrepreneurship Accordingly, in the modern era, universities have become more in need of developing their resources and increasing funding for their projects and research, in light of the restructuring of these universities as a result of the significant expansion in higher education and the occurrence of some economic crises (Al-Samhan, 2021).

Despite the great progress witnessed by Saudi universities in our current era, which has made them occupy advanced positions in various international classifications, universities face many challenges in their journey to transform into a model of entrepreneurial universities. In order to achieve this ambition, universities must draw up entrepreneurial strategies that make universities stand-alone institutions. Perhaps one of the most prominent challenges is the extent of universities' ability to build an entrepreneurial culture among university students Activating strategic partnership programs with government and private sectors and enhancing the role of academic leaders, which are among the main objectives of the entrepreneurial university system, and to achieve these objectives, universities must make more efforts. In this context, the results of many studies, such as the study of (Al-Rumaidi, 2018), confirmed the lack of significant interest of academic leaders towards enhancing students' entrepreneurial orientation, as well as the study of (Al-Tuwairqi, 2023), A study by (Al-Qahtani & Al-Akhlafi, 2019) revealed a weakness in the entrepreneurial concept among many academic leaders in universities. From the above, and based on the pivotal role of academic leaders in promoting the culture of entrepreneurship, this study comes to answer the following main question: **What is the reality and role of academic leaders in promoting the culture of entrepreneurship and its impact on adopting the model of entrepreneurial universities**? From which the following sub-questions branch out:

1.What is the reality and role of the university's vision and strategy in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leaders?

2.What is the reality and role of university leadership and support in promoting a culture of entrepreneurship among Saudi university students from the perspective of academic leaders?

3.What is the reality and role of education and partnerships in promoting a culture of entrepreneurship among Saudi university students from the perspective of academic leaders?

4.Are there statistically significant differences between the average responses of academic leaders in promoting an entrepreneurial culture among Saudi university students attributed to the variable (academic rank, gender, years of experience in academic leadership, age group, specialization)?

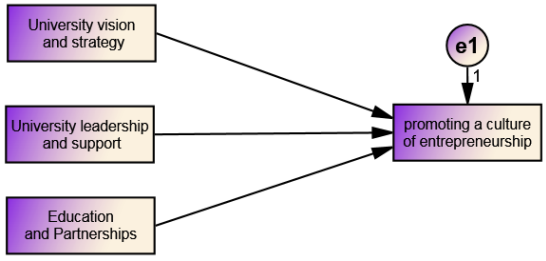
5. What are the most prominent challenges facing academic leaders in promoting a culture of entrepreneurship among students and its impact on adopting the entrepreneurial university model from the point of view of academic leaders?

6. What are the proposed solutions to enhance the culture of entrepreneurship among Saudi university students and its impact on adopting the entrepreneurial university model?

1.2. Study model:

The study model was developed based on previous studies related to the current study and based on the following studies: (Al-Rashidi, 2024); (Ashraf, 2018)؛ (Ghabsh & Al-Absi ,2022)؛ (Hamadneh,2023) ؛(Kwan et al ,2022)؛(Gerald,2020) ؛ (Khaled&Abu-TablAbou,2023) (EI-Makarem &Badawy,2023)؛ (Hidayat et al,2021) .

Figure (1) Virtual study model



1. 3. Study hypotheses:

The researcher studied many previous researches related to the subject of the study and its variables to achieve the objectives of the study, and these studies were used as a reference to develop a model of the interconnected relationships between the variables studied through the following:

The first main hypothesis: There is no practice by academic leaders to promote a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders. Sub-hypotheses branch out from the first main hypothesis as follows:

- **The first sub-hypothesis**: There is no high degree of practice of the university's vision and strategy in promoting a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders.
- **The second sub-hypothesis**: There is no high degree of practice of university leadership and support in promoting a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leadership.

- **The third sub-hypothesis**: There is no high degree of practice of education and partnerships in promoting an entrepreneurial culture in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders.

- **Fourth sub-hypothesis**: There is no positive impact of academic leadership in promoting an entrepreneurial culture by adopting the entrepreneurial university model among Saudi university students from the academic leadership's perspective.

- **Fifth sub-hypothesis**: There is no positive impact of the university's vision and strategy in promoting a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders.

- **Sixth sub-hypothesis**: There is no positive impact of university leadership and support in promoting an entrepreneurial culture in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders.

- **Seventh sub-hypothesis**: There is no positive impact of education and partnerships in promoting an entrepreneurial culture in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders.

- **The second main hypothesis**: There are no statistically significant differences between the average responses of the study sample in promoting an entrepreneurial culture in adopting the entrepreneurial university model, attributed to the variable (academic rank, gender, years of experience in academic leadership, age group, specialization).

1.4. Objectives of the study:

The main objective of this study is to identify the level of practices of academic leaders to enhance the culture of entrepreneurship and their impact on adopting the model of entrepreneurial universities based on several dimensions relevant to the current study based on a sample of academic leaders in Saudi universities. The most important of these dimensions are focused on the following:

- The level of practice of university leaders regarding the dimensions of the university's strategic vision, leadership, and university support, in addition to the dimension of education and partnerships from the point of view of academic leaders in universities in the field of study.

- The level of university leadership's practice of the dimensions, which are closely linked to enhancing the culture of entrepreneurship among Saudi university students, represented by the dimension of creativity and innovation among students, in addition to the dimension of Proactiveness and risk-taking, from the point of view of academic leadership in Saudi universities where the study is conducted.

- Identifying the most important dimensions from the perspective of academic leaders that play an influential role in promoting an entrepreneurial culture in Saudi universities.

- Test whether there are differences between the average responses of academic leaders according to some demographic or job characteristics.

- Identifying the most important challenges facing academic leaders and their efforts to promote a culture of entrepreneurship from the perspective of academic leaders at local universities.

1. 5. Importance of the study:

The importance of the study in the reality of academic leadership practices to enhance the culture of entrepreneurship and its impact on adopting the entrepreneurial university model is highlighted by several considerations, which are represented in the following aspects:

- **Theoretical (scientific) importance:**

The scientific importance of the current study stems from the subject and field it addresses, which is to identify the reality of the practices of academic leaders in Saudi universities in promoting the culture of entrepreneurship and spreading it among students, which has become a requirement of the modern era, as we note that there is increasing interest in the world today in developing educational methods in universities with the aim of building individuals and entities that are able and capable of facing all challenges by establishing a solid base of entrepreneurial culture and creative and innovative ideas among Saudi university students, which will help them develop and consolidate an entrepreneurial, innovative and creative future, is a job assigned to universities today to lead the journey towards entrepreneurial education so that they can enhance the culture of entrepreneurship among their students.

- **Practical (applied) importance**

The current study is expected to benefit academic leaders in identifying the potential available at universities and the true role of academic leaders in promoting a culture of entrepreneurship among students through drawing up plans and designing academic programs, courses, programs, and projects related to entrepreneurship in university education. Identify the most prominent challenges that hinder enhancing the culture of entrepreneurship among students, as well as the most important opportunities available and benefit from them. The researcher also hopes that the results of the study will contribute to everyone involved in formulating and making decisions in the Ministry of Education and within universities in identifying how to enhance the culture of entrepreneurship and working to enhance it.

1. 6. Study terms:

Academic leadership: Academic leadership is defined as: those administrative, organizational, and technical practices carried out by the academic leader, in cooperation with other deans of colleges, in order to achieve the best results desired from the university's colleges, to play their role in achieving community development (Al-Shamrani, 2017, p. 317).

Procedurally is defined as: a group of faculty members who have the decision-making authority assigned to them from their administrative positions in Saudi universities, and they are heads of departments, deans of colleges, their deputies, deans of supporting deanships, their deputies, the university president, and university deputies.

Entrepreneurship Culture: Entrepreneurship is defined as "working to provide students with a wealth of knowledge and information that spreads entrepreneurial culture, develops their entrepreneurial awareness, forms entrepreneurial minds, and provides them with many skills, including creativity and innovation, discovering opportunities, future vision, motivation and perseverance, self-confidence, initiative and risk-taking, self-employment, teamwork, critical thinking and problem-solving, and the ability to compete locally and globally" (Mahmoud, 2020, p. 113).

The researcher defines it procedurally as: a set of scientific knowledge and skills that students learn that support their abilities towards self-employment and enhance their personal characteristics in facing challenges and risks by adopting business models and applying them effectively in the labor market.

Pioneering Universities: A pioneering university is defined as one that is the first to generate knowledge and transform it into economic and social value. This is achieved by working to support innovation, encourage the production of applicable scientific research, train students to refine their ideas, help them design prototypes, transform them into commercial projects capable of growth and development, and develop pioneering teaching methods. Teaching curricula and methods focus on investing in research, ideas, and inventions to enable the university to contribute to the country's global competitiveness. (The Carpenter, 2020).

The researcher defines it procedurally as: universities that focus their strategies and practices on entrepreneurship to transform from the traditional model of teaching and learning to a model that contributes to investing university resources in enhancing knowledge economies and global competition.

1.7. Study limitations:

Objective Limits: Objective Limits focuses on explaining the reality and role of academic leadership in promoting the culture of entrepreneurship among Saudi university students and its impact on adopting the entrepreneurial university model through the following dimensions (vision and university strategy, university leadership and support, education and companies).

Spatial boundaries: This study was limited to Saudi public universities (King Saud University, King Abdul-Aziz University, Imam Abdul Rahman bin Faisal University, King Khalid University, and Tabuk University).

Time limits: The study was conducted during the current year (2026 AD).

Human Limits: The study is limited to a group of academic leaders at various administrative levels in Saudi universities.

Theoretical framework and previous studies:

Theoretical framework:

Introduction

Promoting an entrepreneurial culture in universities has become a growing focus of interest, driven by recent global trends that are pushing academic institutions to adopt entrepreneurial thinking, along with the accelerating effects of globalization and privatization on the business environment in general. These factors have contributed to shaping a new competitive environment for universities at the local, international and global levels. This growing interest is attributed to the pivotal role that entrepreneurship plays in supporting economic growth at the macro level, as well as its contribution to the expansion of universities and increasing their ability to access financial and material resources (Hussein, 2013).

Section One: Academic Leadership

The concept of academic leadership at a university does not differ from the concept of leadership in general except in the characteristics and tasks that the leader exercises according to the nature of what he does, as he defined it (Jawah, 2017: P.7) as a group of individuals who hold administrative positions with academic work at the university, and they are: directors, deans, department heads, and supervisors who worked as faculty members in universities. (The Sultans, 2014) defines it as "the leadership responsible for direct participation in university administration, whether at the senior leadership level, or at the level of colleges, deanships, and scientific departments." It carries out administrative, academic, and educational work related to the internal and external developments of universities.

The researcher defines academic leadership as: a group of faculty members who have the decision-making authority assigned to them from their administrative positions to facilitate work in universities, and they are department heads, deans of colleges, their deputies, deans of supporting deanships, their deputies, the university president, and university deputies.

The importance of academic leadership

The importance of academic leadership lies in its being the starting point for directives that ensure the development of the university's various tasks, and their important role in solving the problems it faces in a scientific and logical manner at the appropriate time. It is considered an essential input to the educational process in universities, and a major dimension for bringing about change to achieve quality administrative and educational work (Jawdat, 2010). Academic leadership also derives its importance from the importance of "the human element, which is the focus of the university's attention and its most important resource that contributes to achieving its goals" (Omar, 2015).

Through an analytical reading of the above, the researcher believes that academic leadership represents the mind and spirit of higher education institutions. Indeed, it is one of the most important reasons for the success of universities' vision and strategy. Furthermore, its role is not limited to administrative aspects alone, but includes monitoring and ensuring the quality of learning, supporting scientific research and innovation, and possessing the ability to analyze the future direction of the university in light of ongoing changes.

The roles of academic leadership in promoting a culture of entrepreneurship among students

Academic leaders play a prominent role in shaping the university education environment in light of the growing interest in entrepreneurship in supporting the national economy. Their role is to promote a culture of entrepreneurship through its broad and future-oriented vision and to work to align the culture of entrepreneurship with the university's strategy (Al-Husseini, 2006). The ability to provide a long-term strategic vision and the necessary funding sources, and to establish specialized centers to support entrepreneurship and facilitate the transformation of ideas into tangible entrepreneurial projects. (Syed et al. 2024).

In the field of university leadership and support, academic leaders outline clear policies to shape students' entrepreneurial culture (Kayyali, 2023). Motivating students to take initiative, discover opportunities, take risks, and innovate (Bada et al, 2024) and in the field of education and partnerships by integrating entrepreneurship and innovation and promoting critical thinking, creativity, and the ability to solve problems at the stages of university education (Kayyali, 2023). And concluding partnerships with government and private sector institutions to provide the necessary financing (Al-Sabki et al., 2022).

The relationship between academic leadership and promoting a culture of entrepreneurship

Higher education is a key focus in promoting an entrepreneurial culture and developing students' entrepreneurial skills. Numerous studies conducted on global economic growth over the past two decades have shown the tremendous role played by small businesses in acquiring wealth and creating new job opportunities. This has led to an increase in interest in entrepreneurship among public institutions (Hamidi & Awainan, 2012).

In the same context, the culture of entrepreneurship plays a pivotal role in restructuring universities that seek to enhance their competitive capabilities and expand the scope of their educational programs, which enables them to maintain their position to keep pace with the challenges resulting from the strong competition between universities locally and globally. It also contributes to achieving a balance between their role as a public learning entity that serves society, and employing their capabilities to market entrepreneurship (Musharraf, 2021).

Hence, the importance of academic leadership in motivating faculty members to teach entrepreneurship concepts using modern methods, and implementing project-based and applied education that enhances the importance of thinking "outside the box" among students, enabling them to explore and share their ideas in a more open way, instead of guided learning. Adopting the organization and management of activities and events that support entrepreneurs. (Zabalawi,2020).

Dimensions of academic leadership:

Based on the theoretical review of academic leadership, and after formulating the theoretical concept and the researcher building the concept of academic leadership, we will focus in this section on the most important dimensions of the concept of (academic leadership), which are as follows:

❖ University vision and strategy:

The university's vision and strategy are among the key elements in the formation of educational, service, industrial, and other institutions. They are the path that these organizations follow towards achieving their short-term or long-term goals. Within the framework of understanding the dimension of the university's vision and strategy, (Jihad and Abbas, 2019) define it as representing an intellectual model for the desired future, which enables institutions to constantly look toward the future and envision themselves ideally. This is what (Bani Hamdan et al., 2007) went to in defining the strategic vision as enabling business organizations to reformulate their goals, chart the appropriate path to provide services effectively and prepare the organization to accommodate the requirements of the future. The vision represents the future image that the organization is trying to reach, and it can be crystallized through the organization's interaction between senior management and all levels of the organization. The importance of the strategic vision lies in identifying the future and achieving many benefits. It is represented in its ability to determine the appropriate strategic path that the organization wishes to reach (Al-Attiyat, 2006). From this standpoint, It is the responsibility of academic leaders and university deputies in entrepreneurial universities to create an entrepreneurial environment by promoting and supporting emerging student projects and teaching entrepreneurship concepts by providing a vision and strategic goal that allows all students and faculty members at the university for entrepreneurship results to be successful and clearly achieve their goals inside and outside the university ((NESTA,2008).

❖ University leadership and support:

Universities are the main driver in promoting the culture of entrepreneurship in their surrounding environment, by providing investment opportunities for existing or emerging companies. Naturally, therefore, the concept of leadership and its impact on organizations receives wide attention, as leadership (Ghorbanian, 2012) is defined as "the force of influencing the attitudes, beliefs, behavior and emotions of others." Leadership is defined as the art of influencing others to motivate them to carry out their tasks with enthusiasm and creativity Effective leadership is based primarily on the leader's strength of character, experience, and ability to deal with employees, and represents the internal motivation to achieve the organization's goals efficiently (Abu Al-Ela, 2013). Of course, if leadership has been important since ancient times, it has doubled in importance in our present era, with the emergence of rapid transformations that have brought about significant change on the economic, social, and technical levels, in addition to the cultural changes of individuals and societies in our daily lives (Hassan, 2012). Accordingly, the role of academic leadership is essential in universities. Despite the multiplicity of these roles, they all aim to achieve a unified goal represented in embodying the vision and mission of the university. The roles of academic leadership have developed to include developing a strategy to determine the future vision, and shifting the focus from building systems to enhancing and supporting workers towards the future, and preparing for it, in addition to the importance of focusing on developing initiatives and from being merely a source of orders to an encourager and motivator (Eid,2023).

Accordingly, many Saudi universities have recently moved towards promoting entrepreneurship by integrating entrepreneurship concepts into their plans and administrative structures, which contributes to simplifying procedures, improving institutional performance, and supporting innovation. They are not limited to that only, but universities have also provided a supportive environment to promote entrepreneurial ideas and projects among students by establishing entrepreneurial centers, business incubators, and accelerators, which positively reflects on sustainable economic development.

❖ Education and Partnerships:

Education is of great importance in building knowledge, developing students' capabilities and skills, and forming a scientific culture as a result of teaching and learning outcomes that are consistent with the goals of the labor market. Therefore, the trend towards entrepreneurship has increased due to its economic and social contributions that have a long-term impact in light of a changing environment and high competition, as universities seek to align their strategies and policies towards entrepreneurship due to its effective role in progress and prosperity.

Accordingly, (Al-Sayed, 2014) defines education for entrepreneurship as university students acquiring skills related to self-employment in order to increase their levels of awareness, train them in creativity and innovation skills, and encourage them to take the initiative in launching their own projects. This approach seeks to transform graduates into job opportunity producers rather than mere job researchers.

From another perspective, partnerships represent one of the most important means that educational institutions have turned to to enhance cooperation and unify the various capabilities and resources between partners. Each institution seeks to demonstrate its advantages so that the other partner can benefit from them, according to common goals set by the partners, based on the importance of teamwork and its effectiveness compared to individual efforts (Al-Ahmad, 2015). (Sanders, 2017) defines it as the interconnection and partnerships between education and various industrial and commercial sectors that aim to enhance economic, social and scientific growth, in order to achieve society's goals and address the challenges it faces.

Section Two: Entrepreneurship Culture

The concept of entrepreneurship culture

Entrepreneurial culture is an organizational framework that encourages individuals to adopt values and contributes to enhancing the competitive capabilities of organizations (Wong, 2014). To understand the culture of entrepreneurship, many researchers have approached this concept from several contexts, each according to its field. (Wong, 2014), defines it as a type of values, assumptions, and practices that are shared within the organization, and which focus on exploiting opportunities to create new value for society, either partially or completely. As for (Adebayo & Kolawole, 2013), they referred to the culture of entrepreneurship as a new educational culture that aims to ensure the redesign of a comprehensive educational system to re-engineer the clear shortcomings of the existing education system.

The importance of promoting a culture of entrepreneurship

The importance of promoting a culture of entrepreneurship lies in reducing unemployment levels by creating numerous job opportunities for members of society, in addition to providing them with the opportunity to excel and achieve the goals they seek, achieving independence for them and eliminating dependence on others. It has a significant impact on economic development, profits, growth, expansion, and preventing members of society from migrating to other areas to search for work (Alam, 2022).

Challenges of promoting an entrepreneurial culture

Despite the positive role that entrepreneurship provides in universities, there are challenges that universities must overcome; Strong academic leadership, university support, and enhancing students' culture towards innovation and entrepreneurship are all important to overcome these challenges, as by promoting a culture of entrepreneurship in higher education, universities contribute to the emergence of emerging companies and entrepreneurial projects that can address societal challenges and contribute to enhancing economic development (Kayali,2023). (Mahmoud, 2021), (Harb, 2020), (Al-Shammari and Al-Mubarik, 2014), and (Al-Rumaidi, 2018) point to the efforts made by universities in spreading the culture of entrepreneurship, but they face many challenges, perhaps the most prominent of which are: weak interest in spreading the culture of entrepreneurship in higher education institutions, the absence of support towards promoting continuing education, and the absence of educational programs that complement university education Poor focus on creativity, innovation, and analysis, a lack of support for talented and creative students, and a lack of encouragement to implement their ideas. Furthermore, there is a significant gap between the curricula and courses taught in higher education institutions and those required by the labor market.

Entrepreneurial universities

The concept of entrepreneurial universities dates back to the late nineteenth century, when American universities began to link and strengthen the relationship between universities and the local community and provide community services. During this period, what is called a patent based on the results of scientific research appeared. This philosophy soon moved from the United States of America to European universities due to the growing interest in the knowledge economy In the early nineties, universities in some developing countries such as China, India and Brazil followed suit in this approach. Universities became an important supporter of economic and social development in addition to their teaching and research mission, which is what is now called the pioneering university (Faqihi & Al-Ababneh, 2023).

Within the framework of the Ministry of Education's interest in supporting the entrepreneurship system in Saudi universities, the (Entrepreneurial University) initiative was launched as a strategic project that reshapes the future of university education in the Kingdom. Therefore, the concept of entrepreneurial universities has begun to crystallize at the present time in a growing manner, which aims to adopt an approach that focuses on innovation and entrepreneurship and places universities at the heart of national development and the knowledge economy (Ministry of Education, 2022).

Entrepreneurial universities are defined as those that have the ability to create and innovate, and have a role in producing and disseminating knowledge, and have the capabilities to develop an integrated internal system for marketing knowledge, including patents, establishing new companies, holding customized educational courses, and providing consultations and research by providing supporting structures such as Business centers and incubators (Natalia Radko,2022).

Based on the above, the researcher defines entrepreneurial universities as universities that go beyond their traditional roles in education, scientific research, and community service to become pivotal actors in providing an environment that supports innovation and entrepreneurship, and adopt a strategic approach based on developing students' entrepreneurial culture that supports transforming ideas into realistic, valuable projects.

Transformation requirements for entrepreneurial universities

Many studies have presented a set of requirements that academic leaders must consider when designing the transformation model for entrepreneurial universities. (Etzkowitz, 2013) presented a set of requirements for the transformation towards an entrepreneurial university through four stages that can proceed in an orderly manner or simultaneously. In the first stage, the university must determine priorities and formulate its strategic narrative In the second phase, the university enhances its financial resources from various sources. In the third phase, faculty members begin an important role in promoting and

marketing their scientific research, which the university focuses on by engaging with stakeholders to transform this research into innovations and projects in partnership with the industrial sector.

In line with what was mentioned, many researchers focused on the importance of academic leadership and their fundamental role in the processes and requirements of the transformation of entrepreneurial universities, as (Al-Shammari and Al-Mubarik, 2014) pointed out the main role of academic leadership that is aware of the importance of entrepreneurial orientation and convinced of the mechanisms of building the knowledge generation and the transformation towards the knowledge economy, which represents one of the most important elements of building an entrepreneurial university, as spreading the culture of entrepreneurship requires a long time, diverse programs and continuous commitment Therefore, academic leaders must be characterized by deep belief in the idea, serious adoption of the concept of an entrepreneurial university, and the development of strategic plans and executive programs for its stages.

Previous studies

Previous studies (Arabic and foreign studies)

Author's name, year of publication, and country	Study objective	Study methodology and sample size	Study results
(Abdul Rahim, 2025) **Iraq**	Explaining the importance of universities' -orientation towards-formulating pioneering educational goals and programs for the purpose of developing creativity and innovation by supporting the spirit of culture among students.	Descriptive analytical approach ،	- The necessity of directing university policies towards preparing educational programs that enhance the skills of creative students. - Encouraging students to generate entrepreneurial ideas and transform them into entrepreneurial projects to achieve sustainable development goals and reduce poverty and unemployment.
(Al-Rashidi,2024) **Kuwait**	Identifying the role of the Public Authority for Applied Education and Training in the State of Kuwait in developing the culture of entrepreneurship among students, and uncovering obstacles to developing the culture of entrepreneurship	Descriptive analytical approach and questionnaire tool, (190) faculty members.	- - The role of the Public Authority for Applied Education and Training in developing the culture of entrepreneurship among students is average, and the first dimension of leadership and student support is the vision and mission. Strategy second, education for leadership third. - The obstacles to developing a culture of entrepreneurship are moderate. - - There were no significant differences between the study sample members regarding the reality of developing an entrepreneurial culture - There are differences regarding the obstacles to developing an

			entrepreneurial culture for the job title variable.
(Al-Hamouri Others, 2024) **Jordan**	Identifying the reality of spreading the culture of entrepreneurship that stimulates sustainable development from the perspective of students at the University of Science and Technology of Jordan	Descriptive-analytical approach and reliance on the questionnaire tool (230) male and female students.	- - The reality of spreading the culture of entrepreneurship that stimulates sustainable development is high. - - There are differences at the level of ($0.05 \geq \alpha$) due to the effect of academic achievement in favor of academically outstanding students. - - No differences attributable to the effect of gender. - - The presence of statistically significant differences at the level of ($0.05 \geq \alpha$) attributed to the College - College of Engineering and both the College of Science and Arts and the College of Information Technology in favor of the College of Engineering.
(Saeed et al., 2024) **Libya**	Identifying the role of Libyan universities in spreading the culture of entrepreneurship from the perspective of faculty members	Social survey curriculum, study sample (142) faculty members, and questionnaire as a data collection tool	- The university suffers from a failure to spread the culture of entrepreneurship within society. - Lack of a clear plan for entrepreneurship.
(Lakhdar et al., 2023) **Algeria**	Explaining the role of entrepreneurship education in developing an entrepreneurial culture among university students, and drawing lessons from pioneering international experiences in this field	Descriptive and analytical approach. Study sample: Faculty members	- An entrepreneurial culture can be developed among university students through effective entrepreneurial education, which begins with formulating entrepreneurial educational goals. - Developing a culture of entrepreneurship among students and transforming it into successful entrepreneurial practices requires effective cooperation between the

			university, business organizations, and the government.
(Alam, 2022) **Egypt**	Identifying the spread of entrepreneurship culture, including the variables represented in increasing entrepreneurship knowledge, providing entrepreneurship skills, and overcoming obstacles, as an independent variable	The descriptive analytical approach and the questionnaire as a data collection tool, random stratification with (384) items	- - that the variables of spreading the culture of entrepreneurship, represented in increasing entrepreneurial knowledge, providing entrepreneurial skills, and overcoming obstacles, positively affect the development of entrepreneurial motivation among young people. - The organization is not keen on holding seminars and workshops to encourage self-employment.
(Mustafa, 2020) **Saudi Arabia**	presents a proposed vision to enhance the role of public universities in Riyadh in spreading the culture of entrepreneurship among their students	The descriptive survey method and questionnaire are a tool for collecting data, (482) male and female students from public universities in Riyadh	- The reality of the role of Saudi universities in spreading the culture of entrepreneurship among students came to an average degree. - There are obstacles that affect Saudi universities' ability to play their role in spreading the culture of entrepreneurship among students. - There is approval for the role of Saudi universities in spreading the culture of entrepreneurship.
(Herb, 2020) **Egypt**	Reveals the reality of colleges of education exercising their roles in spreading the culture of entrepreneurship among their students, and monitors the challenges facing leaders of colleges of education in carrying out their role in this regard.	Descriptive approach, study sample (580) students	- A clear weakness in the colleges of education playing their role in spreading the culture of entrepreneurship among their students in the three fields (education for entrepreneurship, supportive environment, business incubators). - There are statistically significant differences between students' responses according to students' specializations in favor of literary specializations, and according to their universities in the fields of (supporting environment and business incubators) in favor of Mansoura University. - Organizational challenges topped the list of challenges facing leaders of colleges of education in spreading the culture of

			entrepreneurship among their students.
(Al-Nafay, 2015) **Saudi Arabia**	Learn about the reality of leadership strategies at King Saud University	Descriptive Analytical Approach	- The reality of leadership strategies in Saudi universities is high. - It came in first place in terms of practice after growth, second after innovation, and third place after uniqueness.
(Koryakina,2023) **Portugal**	Identifying the challenges facing universities in the external environment and their impact on governance and internal management.	Qualitative case study approach	- The findings identified two main types of challenges: external, primarily related to government regulations and funding allocation, and internal, involving organizational characteristics.
(Novita, et al.2022) **Indonesia**	- Reveals the role of university leadership management in developing entrepreneurship among university students.	Qualitative approach,& Interviews with Leaders	- Leadership plays a role in developing student entrepreneurship by implementing effective management functions - Effective leadership and management practices are essential to foster entrepreneurship among students, highlighting the importance of integrating spiritual values into educational initiatives. -
(Looi& Maritz,2021) **Malaysia**	Find out the level of entrepreneurship education and entrepreneurship education program offered by Malaysian public and private institutions in higher education.	Qualitative approach, the sample included (86) public and private educational institutions	-The level of promotion of entrepreneurship as a viable career option in Malaysia was high, - Encouraging individuals to become entrepreneurs has great benefits for them in the future.
(Gerald ,2020) Zimbabwe	Identifying the importance of entrepreneurship in Zimbabwean universities.	Case study and sample size equal to (200) Respondents	- The entrepreneurial attitude is important for Zimbabwean universities and is also present in universities where it is seen as the seed of entrepreneurship.

Comment on previous studies and the location of the current study, including:

By reviewing previous studies, we find a diversity of efforts by researchers in addressing the issue of promoting a culture of entrepreneurship in universities, whether in studies in the Arab or foreign environment.

A - **Similarities of the current study and previous studies**

Subject of the study: The current study agreed with most previous studies, such as the study (Al-Rashidi, 2024), the study (Al Thani, 2020), the study (Abdul Rahim, 2025), (Al-Hamouri et al., 2024), the study (Saeed et al., 2024), and the study (Novita, et al, 2022) in its treatment of the topic of entrepreneurial business in universities and ways to develop an entrepreneurial culture there.

Challenges and Obstacles: The current study agreed with the study (Harb, 2020) and the study (Alam, 2022) in addressing the most prominent challenges and obstacles facing universities in spreading the culture of entrepreneurship among university students.

Statistical approach: The current study is consistent with the study of (Al-Rashidi, 2024) and the study of (Thabet et al., 2023). Study (Abdul Rahim, 2025) (Al-Hamouri et al., 2024), (Lakhdar et al., 2023), Study (Alam, 2022), Study (Al-Nafi'y, 2015), Saudi Arabia in its use of the descriptive analytical approach.

Data collection tool: The current study is similar to many previous studies in terms of its use of the questionnaire as a data collection tool, such as the study: (Saeed et al., 202), the study (Al-Rashidi, 2024), the study (Al-Hamouri et al., 2024), the study (Abdul Rahim, 2025), the study (Thabet et al., 2023), the study (Gerald, 2020), and others.

Sample size and type: The current study agreed with some previous studies in terms of the size of the selected sample, which exceeds (150) individuals, such as the study (Alam, 2022), the study (Mustafa, 2020), the study (Al-Rashidi, 2024), the study (Al-Hamouri et al., 2024), and the study (Harb, 2020).

Study population: The current study agreed with some previous studies in terms of the target study population, such as a study (Saeed et al., 2024), a study (Lakhdar et al., 2023), and a study (Gerald, 2020) that focused on academic leaders and faculty members in university communities.

B - Differences between previous studies and the current study

Study title: The current study differs from most previous studies in terms of the study title, which focused on academic leadership in some Saudi universities.

Applied environment: The current study differs from many previous studies in terms of applied environment, such as the study of (Abdul Rahim, 2025), the study of (Al-Rashidi, 2024), (Al-Hamouri et al., 2024), the study of (Saeed et al., 2024), (Lakhdar et al., 2023), the study of (Alam, 2022), the study of (Looi&Maritz,2021) the study of (Novita, et al. 2022), the study of (Koryakina, 2023) and the study of (Gerald,2020).

C - Aspects of benefit from previous studies

The researcher benefited from previous studies in formulating the theoretical and intellectual frameworks for the current study.

- Determine the dimensions related to academic leadership and entrepreneurial culture for the current study.

Formulating the axes and dimensions of the study tool items based on what has been covered in many previous studies.

- Determine the appropriate statistical method for the current study, which is represented by the descriptive analytical method.

- Determine the appropriate sample size, selection method and description.

- Determine the appropriate descriptive statistical methods for analyzing the data of the current study.

Research gap and commentary

The research gap of the current study is that it seeks to identify the reality of academic leadership practices to promote the culture of entrepreneurship and its impact on adopting the model of entrepreneurial universities. Through previous studies and the current study, the research gap is that previous studies show the interest of universities in spreading the culture of entrepreneurship in general and its impact on some variables specific to universities. Many previous studies have focused on students' motivations that enhance entrepreneurial intention However, no study within the researcher's knowledge has addressed the impact of enhancing the culture of entrepreneurship in light of the project to transform entrepreneurial universities, which is the current direction of the Ministry of Education. Accordingly, the current study is distinguished from previous studies in its treatment of the reality of the practices of academic leaders in Saudi universities to enhance the culture of entrepreneurship and its impact on adopting the model of entrepreneurial universities, while identifying the challenges facing academic leaders in order to enhance the culture of entrepreneurship in Saudi universities.

Study procedures: The current chapter aims to review the procedures that were used in the study, including: the approach followed in the research, the research community, the research sample, the procedures for preparing and applying the study tool, and the statistical methods used in the study.

First: Study methodology: Given the nature of the study topic and the objectives it seeks to achieve, the researcher used the descriptive analytical approach, which expresses "the study of the phenomenon to be studied." This approach is not limited to describing the phenomenon and collecting information and data about it, but extends to classifying, organizing, and expressing this information quantitatively and qualitatively, leading to an understanding of the relationships of this phenomenon with other phenomena. " (Obaidat et al., 2014, p. 181).

Data and information sources

• **Secondary sources**: To formulate the intellectual and theoretical frameworks for the study regarding the reality of academic leadership practices to enhance the culture of entrepreneurship and its impact on adopting the model of entrepreneurial universities, the researcher relied on the latest relevant Arab and foreign books and references, periodicals, articles, reports, and previous research and studies that addressed the subject of the study.

• **Primary sources**: In obtaining field data in the context of answering research questions about the reality of academic leadership practices to promote the culture of entrepreneurship and their impact on adopting the model of entrepreneurial universities, the researcher relied on the questionnaire, which was designed specifically for this purpose.

Second: Study population: The study community included academic leaders from the Saudi public universities where the study was conducted, who are currently working for the year 2026.

Third: Study sample: A random sample was taken from academic leaders at the Saudi universities under study by designing and distributing an electronic questionnaire that includes the basic research variables, including demographic variables, main axes, and sub-dimensions, which are answered according to the Five-point Likert scale. The researcher found a response from the academic leadership community, as the total number of responses received from the research community reached approximately (123) responses. After excluding extremist responses from the study sample, which numbered (5) responses, (118) questionnaires remained, the data of which were subjected to analysis and interpretation by employing statistical packages such as: SPSS and AMOS structural equations modeling to analysis the collected.

Fourth: Study tools: After reviewing many of the theoretical and intellectual frameworks of the research, in addition to previous research and studies and what they included of concepts and dimensions related to the reality of academic leadership practices to enhance the culture of entrepreneurship and its impact on adopting the model of entrepreneurial universities, the researcher designed the study tool that includes the initial data of the research sample in addition to (8) dimensions.

Description of the research tool: The study tool consisted of two basic parts, which are as follows:

Part One: It represents the primary data of the study population members in terms of (gender, age group, academic degree, years of academic experience, university, specialization, administrative position).

- The second part: It consists of (40) phrases, to which the response was graded according to the Five-point Likert scale such as: (strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1). These terms are summarized in the following dimensions:

Table (1): The study main dimensions

first dimension: Academic Leadership			Second dimension: entrepreneurship culture		
S.N	Sub-dimension	number of Items	S. N	Second Sub-	number of Items
1	University vision and strategy	5	1	Creativity	5
2	University leadership and support	5	2	Innovation	5
3	Education and Partnerships	5	3	Proactive	5
-	-	-	4	Risk	5
The third dimension: Challenges and factors affecting academic leadership's practice of entrepreneurship), and consists of 5 Items					

Table (2): Distribution of approval categories for the Five-point Likert scale

Ranking	Weighted Average	Practice level	Scale Categories Answer
1	1 to 1.79	Very low	(1) strongly disagreeing
2	1.80 to 2.59	Low	(2) Disagree
3	2.60 to less than 3.39	Medium	(3) Neutral
4	3.40 to 4.19	high	(4) agree
5	4.20 to 5	Very high	(5)Strongly agree
Table designed by the researcher: Likert scale			

Stages of building the study tool:

In constructing and preparing the study tool, the researcher relied on the following steps:

1.A review of theoretical and intellectual literature, including previous research, studies, and theoretical frameworks related to the reality of academic leadership practices to promote a culture of entrepreneurship and its impact on adopting the entrepreneurial university model.

2.Reviewing the standards of previous research and studies that were used in areas related to the reality of academic leadership practices to enhance the culture of entrepreneurship and its impact on adopting the model of entrepreneurial universities.

3.Formulating the study tool in its initial form and presenting it to a group of specialized reviewers with the aim of identifying the suitability of the research tool for the purpose for which it was developed, as well as identifying the accuracy of formulating statements according to each domain and dimension. Some observations and corrections were made, based on which the researcher made the necessary adjustments.

4.Formulating the study tool in its final form and codifying it.

Psychometric indicators: The psychometric indicators (honesty) of the questionnaire were identified through: the apparent honesty of the tool (honesty of the arbitrators) in addition to the honesty of the internal consistency of Pearson's correlation and the exploratory factor honesty and the confirmatory factor of the dimensions of the research questionnaire as follows:

Apparent validity of the study instrument (judges' validity)

After formulating the study tool in its initial form, a sample of the study tool was distributed to judges who are faculty members at Saudi universities, to learn about their views on the dimensions, expressions, and preliminary data included in the tool. The aim of this initial arbitration was to ascertain: the extent to which the statements of the study tool fit and belong

to its axes and sub-dimensions, the accuracy of the formulation of each statement of the study tool within the scope of its axes and sub-dimensions, and the extent to which the Five-point gradient of the Likert scale fits the study tool. Many corrections and suggestions were received regarding the apparent composition of the dimensions of the study tool and the vocabulary it included in terms of its linguistic formulation, the clarity of the objectives of each dimension, and the degree of its consistency with its vocabulary.

Internal consistency (Pearson correlation) and Cronbach's alpha for the study questionnaire:

Table (3) shows the internal consistency of Pearson and Cronbach's alpha for the domain and axes of the questionnaire and its total score (n=118)

Internal consistency indicators		**Alpha Cronbach stability indicators**	
Dimension content	Correlation	number	Cronbach's
University vision and	0.58**	5	0.84
University leadership	0.84**	5	0.87
Education and	0.64**	5	0.67
Creativity	0.76**	5	0.83
Innovation	0.77**	5	0.92
Proactive	0.76**	5	0.89
Risk	0.71**	5	0.83
Academic Leadership	0.75**	15	0.89
Entrepreneurship	0.92**	20	0.95
The questionnaire	-	35	0.91
Table designed by the researcher: SPSS results			**

To ensure the validity of the internal consistency and general stability of the dimensions and axes of the study tool, The researcher resorted to calculating Pearson's correlation indicators between the score of each dimension and axis and the total score of the questionnaire, as well as Cronbach's alpha stability for each dimension and axis. The results are included in the following table: The statistical indicators of Pearson's correlations between the total score of each dimension of the variable (academic leadership) and the variable of entrepreneurial culture with the total score of the questionnaire show that they range between (0.58** to 0.92**) The Cronbach's alpha stability coefficients ranged across dimensions and sub-axes between (0.67** to 0.95**) and for the overall score of the questionnaire, the Cronbach's alpha stability reached (0.91), all of which are statistically indicative that the sub-dimensions are true to what they were designed to measure and that they enjoy stability and constancy in their general concept among the research community.

To able (4) Frequencies and percentages of study sample characteristics (n=118)

	VARIABLE	**FREQUENCY**	**%**
ADMINISTRATIVE POSITION	department	16	13.6
	Head of Entrepreneurship Center/ Unit	25	21.2
	Dean of the College// Deanship	24	20.3
	head of the department	38	32.2
	Vice Dean of the College.	15	12.7
	variable name	Frequency	%
AGE GROUP	30 years to less	38	32.2
	40 years to less than 50 years	63	53.4
	50 years and	17	14.4
	variable name	Frequency	%
ACADEMIC GRADE	Professor	15	12.7
	Associate	44	37.3
	Assistant	59	50.0
	variable name	Frequency	%

YEARS OF EXPERIENCE	From 5 years to less than 10	31	26.3
	From 10 years to less than 20	55	46.6
	20 years and	32	27.1
	variable name	Frequency	%
UNIVERSITY	King Khalid University	18	15.3
	King AbdulAziz University	21	17.8
	Imam Abdul Rahman bin	24	20.3
	King Saud University	22	18.6
	University of	33	28.0
	variable name	Frequency	%
SPECIALISATION	scientific	33	28.0
	Literary and humanistic	31	26.3
	Applied	14	11.9
	Health college	24	20.3
	Legit	16	13.6
	Total	118	100%

- **Field study results**: This part of the study includes the most important field results in the context of answering the study's questions and verifying its hypotheses. It includes the following sections:

Characteristics of the study sample:

To determine the most important characteristics of the study sample, the researcher resorted to calculating the frequencies and percentages for each category of characteristics of the study sample, and the results are included in the following table:

Statistical indicators of frequencies and percentages of academic leadership sample characteristics show the following results:

1.**Administrative position:** The study sample was distributed in terms of administrative positions among (32.2%)

2-For heads of departments, (21.2%) of heads of entrepreneurship centers and units, (20.3%) of deans and deanships, (13.6%) of supervisors, (12.7%) of deans of colleges and deanships.

3.Age groups: Age group results show that more than half of the study sample (53.4%) of academic leaders were between 40 and less than 50 years old, (32.2%) of academic leaders were between 30 and less than 40 years old, and (14.4%) of leaders were over 50 years old.

4. academic grade: The results show that half of the study sample of academic leaders hold the rank of assistant professor, (37.3%) hold the rank of associate professor, and (12.7%) hold the rank of professor.

5.Years of experience: Indicators of the distribution of years of experience show that (46.6%) of academic leaders have experience ranging from 10 to less than 20 years, followed by (27.1%) with more than 20 years of experience, (26.3%) with experience ranging from 5 to less than 10 years.

6.Universities: The results of the relative distribution indicate that (28%) of the leaders are from Tabuk University, (20.3%) from Imam Abdul Rahman bin Faisal University, (18.6%) from King Saud University, (17.8%) from King AbdulAziz University, (15.3%) of the academic leaders are from King Khalid University.

7.Scientific specializations: Percentage results indicate that (28%) of academic leaders are from scientific specializations, (26.3%) from literary and humanitarian specializations, (20.3%) from health specializations, (13.6%) from Sharia specializations, (11.9%) from applied specializations.

Descriptive statistics to test study hypotheses

This part includes the statistical results of the field study and in the context of answering the questions and hypotheses of the main and sub-study. The descriptive statistics include the arithmetic means, standard deviations, and test results (T) for one sample to indicate the differences between the hypothetical mean of the study, which is equal to (the number of dimension statements x the statistically significant mean of the practice) Since the number of paragraphs in each dimension is equal to (5) phrases and the level of practice of the statistically acceptable reality must not be less than the upper limit of the third category, which is equal to (3.40 out of 5), thus the hypothetical average of the practice reality that is a statistical function of the dimension as a whole becomes (high 3.40 x 5 = 17) for each dimension. Accordingly, the study hypotheses can be answered as follows:

Main hypothesis: There is no positive practice by academic leaders to promote a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders.

To answer this main hypothesis, the researcher followed the following steps:

- Calculating the hypothetical average of the total score for the dimensions of academic leadership = the number of expressions of the dimensions of academic leadership, which is equal to (15 expressions X 5).

- Determine the degree of cut-off for the statistically acceptable degree of reality and practice, which is equal to (3.40 x 15 = 51 out of 75), i.e. the minimum starting point for the third category of the degree of high tangent. Accordingly, the following table includes the reality and practice of academic leadership in promoting an entrepreneurial culture by adopting the entrepreneurial university model.

Table (5) The arithmetic means and the hypothetical mean of the study and the significance of the (T) test of one sample

Dimension	Sample size	sample mean	standard deviation	hypothetical mean	value of (t) test	statistical significance
academic leaders	118	53.9	6.61	51	3.440	0.001

Table was designed by the researcher SPSS Results degree of freedom program (118-1=117)

The statistical indicators for the (T) test for the significance of the differences between the hypothetical average of the actual reality of academic leaders, which is (51 out of 75), and the average responses of the sample of academic leaders, which is (53.09 out of 75), show that the value of (T) was (3.44), which is statistically significant at the level of (0.001) in favor of the average responses of academic leaders Which means that there is a practice and a high level of practice to promote an entrepreneurial culture in adopting the entrepreneurial university model The researcher believes that the degree of practice and actual reality shown by the results is considered lower than it should be, based on the value of (T=3.440), which must be much greater than that in order for there to be a high degree of practice on the part of academic leaders in promoting the culture of entrepreneurship and in adopting the model of entrepreneurial universities among Saudi university students from the point of view of academic leaders. Accordingly, the researcher concludes by rejecting the zero hypothesis and accepting the alternative hypothesis, given the actual practice of academic leadership in order to enhance the culture of entrepreneurship in adopting the model of entrepreneurial universities. These results are consistent with the study of (Al-Hamouri et al., 2024), which showed that the reality of spreading the culture of entrepreneurship that stimulates sustainable development from the point of view of students of the Jordan University of Science and Technology was to a high degree, in all fields and overall degree These results differ from the study (Alam, 202), which showed that there is moderate practice regarding the level of practice of academic leaders in Saudi universities of their role in enhancing the transformation of entrepreneurial universities in entrepreneurial fields and promoting the culture of entrepreneurship. The study (Mustafa, 2020) also showed that the reality and role of Saudi universities in spreading the culture of entrepreneurship among their students, from their point of view, was moderate.

Results of sub-hypotheses

1.**Results of the first sub-hypothesis**: which states that "**there is no practice of the university's vision and strategy to promote a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders**". To answer this first sub-hypothesis, the researcher conducted a test (T) to identify the significance of the differences between the actual practices of academic leaders regarding the vision and university strategy in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leaders on the scale of the total degree of the vision and university strategy dimension. The steps to answer the question were as follows:

- Calculating the hypothetical average of the total score for the vision dimension, university strategy, and other dimensions = the number of statements after the vision, which is equal to (5 x 5=25).

Determine the degree of certainty for the statistically acceptable degree of reality and practice for each dimension, which is equal to (3.40 x 5 = 17 out of 25). Accordingly, the following table includes descriptive statistics to test (T) the reality and practice of academic leadership of the vision dimension and the university's strategy to enhance the culture of entrepreneurship in adopting the model of entrepreneurial universities among Saudi university students from the point of view of academic leadership.

Table (6) The arithmetic means and the hypothetical mean of the study and the significance of the (T) test of one sample

Dimension	Sample size	sample mean	standard deviation	hypothetical mean	value of (t) test	statistical significance
University vision and strategy	118	18.69	2.88	17	6.398	0.000

table was designed by the researcher SPSS Results degree of freedom program (118-1=117)

The statistical indicators of the (T) test for the significance of the differences between the hypothetical average of the actual reality of the practice of the vision dimension and the university strategy, which is (17 out of 25), and the average responses of the sample of academic leaders, which is (18.69 out of 25), show that the value of (T) was (6.398), which is statistically significant at the level of (0.000) in favor of the average responses of academic leaders This means that there is a high level of practice to enhance the culture of entrepreneurship in adopting the model of entrepreneurial universities. The researcher believes that there is actually practice on the part of academic leaders regarding the vision and strategy of the university, meaning that academic leaders highly adopt the culture of entrepreneurship within the university's strategic orientations. Academic leaders also seek to link entrepreneurship to the university's vision, and that academic leaders rely on strategic plans to implement entrepreneurship programs Academic leaders also enhance the university's community responsibilities through entrepreneurial activities. In addition, academic leaders work to have sustainable self-resources that support their entrepreneurial projects. Accordingly, the zero-sum assumption is rejected and the alternative assumption is accepted, due to the existence of actual practice regarding the university's vision and strategy at a high level to enhance the culture of entrepreneurship in adopting the model of entrepreneurial universities from the point of view of academic leaders. These results are consistent with the results of the study (Abdo,2023) which concluded that there is an importance to the role of the university in spreading the culture of entrepreneurship and directing young people towards practicing entrepreneurship after their graduation by following several means, the most important of which is adopting the teaching of educational courses in the field of entrepreneurship and focusing on practical applications during the cooperative training phase before graduation, and organizing seminars, conferences and training courses for students, activities and scientific visits. These results are consistent with a study (Al-Rashidi, 2024) which showed the existence of practice, but to a moderate degree, with regard to vision, mission, and strategy. It agrees with the study of (Al-Nafie, 2015) on the trend of Saudi universities to bring about change in their vision, strategy and programs towards scientific research, innovation and entrepreneurship, and differs with the study of (Saeed et al., 2024) which showed that the university suffers from a deficiency in spreading the culture of entrepreneurship within society, and the reason is due to some obstacles, the most important of which is the weakness of the culture of entrepreneurship in society, and the lack of a clear plan for entrepreneurship.

2.Results of the second sub-hypothesis: which states that "there is no practice of university leadership and support in promoting a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leadership".

Table (7) The arithmetic mean and the hypothetical mean of the study and the significance of the (T) test of one sample

Dimension	Sample size	sample mean	standard deviation	hypothetical mean	value of (t) test	statistical significance
University leadership and support	118	18.64	2.652	17	6.733	0.000

table was designed by the researcher SPSS Results degree of freedom program (118-1=117)

The statistical indicators for the (T) test for the significance of the differences between the hypothetical average of the actual reality of practicing the leadership and university support dimension, which is (17 out of 25), and the average responses of the sample of academic leaders, which is (18.64 out of 25), show that the value of (T) was (6.733), which is statistically significant at a level of (0.000) in favor of the average responses of academic leaders This means that there is a high-level practice of the leadership dimension and university support to enhance the culture of entrepreneurship in adopting the model of entrepreneurial universities. This means, from the researcher's point of view, that academic leadership grants independence to all units and colleges to support student entrepreneurship. Academic leadership also provides a supportive climate for student participation in entrepreneurship projects. Academic leadership diversifies funding sources and provides support to embody entrepreneurial ideas Academic leaders also provide the necessary logistical and administrative services to support entrepreneurship. Academic leaders also enhance students' attitudes towards entrepreneurship through models of successful projects. Accordingly, the researcher rejects the zero hypothesis and accepts the alternative hypothesis and concludes that there is a high degree of practice of the leadership dimension and university support from the point of view of academic leaders. These results are consistent with the study (Ilgov & et al,2019) There is importance, support and training for entrepreneurial students in economics that focuses on entrepreneurship, and transferring the students' file to sites that support entrepreneurial projects. Working on basic and applied research and conducting an assessment of students' inclinations towards entrepreneurial projects, and the importance of academic leaders providing support for entrepreneurship as a university strategy, as well as a study (Nouf, 2023) which showed a practice of the dimension of leadership and student support to a moderate degree, and is also consistent with the study of(Novita, 2022) which concluded that leaders play a prominent role in developing and supporting entrepreneurship to a high degree, and differs from the study (of Khader et al., 2023) which showed that there is a deficiency in universities to support the culture of entrepreneurship, especially in the areas of entrepreneurship education, university support, internationalization and external university relations, and entrepreneurship evaluation. It also differs from the study (Dahleez & Migdadm, 2013) whose study results found a lack of material and moral support provided by academic leaders to develop and spread the culture of entrepreneurship among students.

3.Results of the third sub-hypothesis: which states that "there is no practice of education and partnerships in promoting a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders".

Table (8) The arithmetic mean and the hypothetical mean of the study and the significance of the (T) test of one sample

Dimension	Sample size	sample mean	standard deviation	hypothetical mean	value of (t) test	statistical significance
Education and Partnerships	118	15.75	2.990	17	-4.526	0.000

table was designed by the researcher SPSS Results degree of freedom program (118-1=117)

Also, the statistical indicators of the (T) test for the significance of the differences between the hypothetical average of the actual reality of practice after education and partnerships, which is (17 out of 25), and the average responses of the sample of academic leaders, which is (15.75 out of 25), show that the value of (T) amounted to (-4.526), which is negative in statistical terms at a significant level of (0.000) in favor of the hypothetical average This means that there is no practice of

the education and partnership dimension to promote an entrepreneurial culture in adopting the entrepreneurial university model and that the level of practice is lower than expected. This means, from the researcher's point of view, that academic leaders: do not organize training courses and workshops to a large extent and regularly to spread the entrepreneurial culture, and academic leaders do not work sufficiently to integrate entrepreneurship education into the school curriculum Also, although academic leaders hold partnerships with advanced universities to spread their entrepreneurial ideas and benefit from their experiences, but at a lower level than expected, the process of involving academic leaders of stakeholders (from inside and outside the university) in entrepreneurial education programs is less than expected, and they must do more to do so In addition, although academic leaders are making effective efforts to attract distinguished teaching staff to teach entrepreneurial courses, they are also less than expected, and more effective efforts must also be made with the aim of attracting distinguished teaching staff to teach entrepreneurial courses. Accordingly, the researcher concludes by accepting the zero hypothesis and rejecting the alternative hypothesis, i.e. the lack of practice of education and partnerships in promoting the culture of entrepreneurship in adopting the model of entrepreneurial universities among Saudi university students from the point of view of academic leaders with statistical significance. These results are consistent with a study (Al-Rumaidi, 2018) which confirmed that there is a clear deficiency in the role of universities in developing a culture of entrepreneurship among students in all axes that included vision, mission, strategy, leadership and governance. As well as the results and study of (Harb, 2020), which showed a clear weakness in the colleges of education playing their role in spreading the culture of entrepreneurship among their students in the three fields (education for entrepreneurship, supportive environment, business incubators), and the results of the study of (Nouf, 2024), which also showed the existence of moderate practice with regard to the educational aspects of supporting entrepreneurial students. A study by Lakhdar et al. (2023) confirmed that the culture of entrepreneurship can be developed among university students through effective entrepreneurship education that begins with formulating entrepreneurial educational goals.

4.The results of the fourth hypothesis: which states that **"there is no effect of academic leadership in enhancing the culture of entrepreneurship in adopting the model of entrepreneurial universities among Saudi university students from the point of view of academic leadership.** To answer this hypothesis, the researcher resorted to conducting a path analysis between the total score of the dimensions of academic leadership and the total score of the dimensions of the culture of entrepreneurship. The results are shown in the following figure and table:

Figure (2) The impact of academic leadership in enhancing the culture of entrepreneurship among Saudi university students

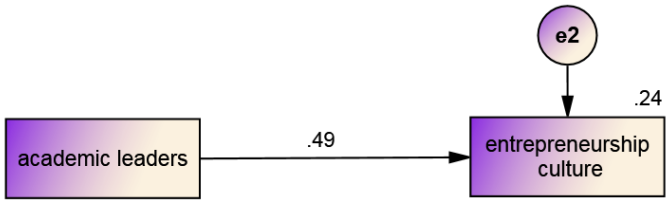


Table (9) Regression weights of the Regression Weights model

impact relationship			Estimate Regression Value	Standard error SE	value of T	significance
academic leaders	→	entrepreneurship culture	0.772	0.126	6.122	***

Table are designed by the researcher results of the Amos program

The statistical indicators of the path analysis model in Figure (2) and Table (9) show that the correlation coefficient between the two dimensions was (0.49) and with an impact coefficient of (0.24) and that the regression coefficient between the two variables was equal to (0.772), which is statistically significant, as the value of (T) was (6.122), which is a function at a significant level of (0.000)(***) Accordingly, the researcher concludes that there is an impact of academic leadership in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leadership. Accordingly, the researcher rejects the null hypothesis and accepts the alternative hypothesis, as there is an impact of

academic leadership in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leadership, which was confirmed by the study of (Abdul Rahim,2025) The importance of the role of academic leaders in promoting and developing the culture of entrepreneurship, given that they are one of the most important tools in the business environment and their positive role in enabling societies to deal with the challenges they face. University leaders should not stand idly by, isolated from the circumstances surrounding their societies that affect their structure and response to rapid changes.

5.Results of the fifth hypothesis: which states: "**There is no impact of the university's vision and strategy to enhance the culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders"**.

Figure (3) The impact of the university's vision and strategy in enhancing the culture of entrepreneurship among Saudi university students

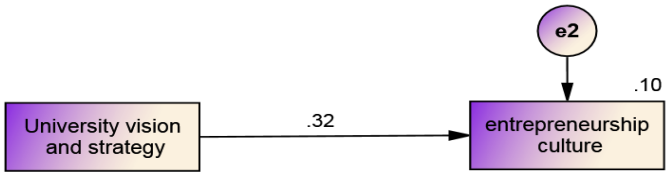


Table (10) Regression weights of the Regression Weights model

impact relationship			Estimate Regression Value	Standard error SE	value of T	significance
University vision and strategy	→	entrepreneurship culture	1.145	0.315	3.629	***

Table are designed by the researcher results of the Amos program

The statistical indicators of the path analysis model in Figure (3) and Table (10) show that the correlation coefficient between the vision, the university strategy, and promoting the culture of entrepreneurship amounted to (0.32) with an impact coefficient of (0.10) and that the regression coefficient between the two variables is equal to (1.145), which is statistically significant, as the value of (T) amounted to (3.629), which is a function at a significant level of (0.000) (***) Based on this, the researcher concludes that there is an impact of the university's vision and strategy in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leaders. Based on this, the researcher rejects the null hypothesis and accepts the alternative hypothesis, as there is an impact of the university's vision and strategy in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leaders.

6.**Results of the sixth hypothesis**: which states that "**there is no effect of university leadership and support in promoting a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leadership**

Figure (4) The impact of university leadership and support in enhancing the culture of entrepreneurship among Saudi university students

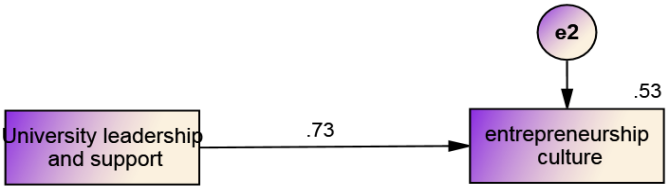


Table (11) Regression weights of the Regression Weights model

impact relationship			Estimate Regression Value	Standard error SE	value of T	significance
University leadership and support	→	entrepreneurship culture	2.837	0.248	11.437	0.000

Table are designed by the researcher results of the Amos program

Also, the statistical indicators of the path analysis model in Figure (4) and Table (11) show that the correlation coefficient between leadership, university support, and the promotion and culture of entrepreneurship reached (0.73) with an impact coefficient of (0.53) and that the regression coefficient between the two variables is equal to (2.837), which is statistically significant, as the value of (T) reached (11.437), which is a function at a significant level of (0.000)(***) Accordingly, the researcher concludes that there is an impact of university leadership and support in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leaders. Accordingly, the researcher rejects the null hypothesis and accepts the alternative hypothesis, as there is an impact of university leadership and support in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leaders.

7.Results of the seventh hypothesis: which states that "**there is no effect of education and partnerships in promoting a culture of entrepreneurship in adopting the entrepreneurial university model among Saudi university students from the point of view of academic leaders".**

Figure (5) The impact of education and partnerships in enhancing the culture of entrepreneurship among Saudi university students

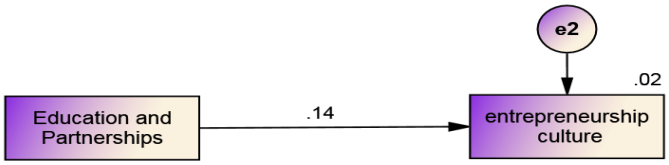


Table (12) Regression weights of the Regression Weights model

impact relationship			Estimate Regression Value	Standard error SE	value of T	significance
Education and Partnerships	→	entrepreneurship culture	0.479	0.317	1.511	0.131

Table are designed by the researcher results of the Amos program

Also, with regard to the impact of post-education and partnerships, the statistical indicators of the path analysis model are shown in Figure (5) and Table (12) The correlation coefficient between education, partnerships, and the promotion and culture of entrepreneurship was (0.14), which is a weak correlation with an impact coefficient not exceeding (0.02), and the regression coefficient between the two variables was (0.479), which is statistically insignificant, as the value of (T) was (1.511), which is insignificant (0.131 > 0.05) Accordingly, the researcher concludes that there is no impact of education and partnerships in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leadership. This is a result that is consistent with the level and reality of academic leadership's practice of the education and partnerships dimension, which has shown adverse results and is very low compared to the impact of the remaining dimensions Accordingly, the researcher accepts the zero hypothesis and rejects the alternative hypothesis because there is no effect of education and companies in enhancing the culture of entrepreneurship among Saudi university students from the point of view of academic leaders.

8.The eighth hypothesis: which states that: "**There are no statistically significant differences between the average responses of academic leaders in promoting the culture of entrepreneurship among Saudi university students attributed to the variable (academic rank, gender, years of experience in academic leadership, age group, specialization)**." To answer this hypothesis, the researcher resorted to conducting a single variance analysis to verify the significance of the differences in the average responses of the research sample depending on the academic rank variable The use of variance analysis is due to the presence of more than two categories for the academic rank variable, and the results are included in the following table:

Table (13) Analysis of One way Anova to indicate differences according to academic level

academic leaders	**Source of variance**	**Sum of squares**	**degree of freedom**	**Mean of squares**	**F value**	**sig**
	between groups	105.3	4	26.3	0.594	0.668
	within groups	5006.7	113	44.3		
	total	5112.0	117	-		
entrepreneurship culture	Source of variance	Sum of squares	degree of freedom	Mean of squares	F value	sig
	between groups	143.0	4	35.7	0.326	0.860
	within groups	12405.9	113	109.8		
	total	12548.9	117	-		

The table was designed by the researcher, SPSS outputs

The statistical results of the single variance analysis with academic rank variation in the context of answering the eighth hypothesis in Table (13) indicate that the value of F with regard to the academic leadership axis as well as the entrepreneurship culture axis ranged between (0.329 to 0.594) and since the calculated statistical significance levels are (0.668 to 0.860 > 0.05), The researcher concludes that there are no statistically significant differences between the average responses of academic leaders in promoting the culture of entrepreneurship among Saudi university students attributed to the academic rank variable. Based on this, the researcher concludes that the null hypothesis is accepted, which is that there are no statistically significant differences between the average responses of academic leaders in promoting the culture of entrepreneurship among Saudi university students attributed to the (academic rank) variable This result is consistent with the results of the study (Nouf, 2024), which showed that there were no statistically significant differences between the averages of the study sample members regarding the reality of developing the culture of entrepreneurship as a whole, and it is also consistent with the study (Ali,2023), which dealt with the reality of the culture of entrepreneurship among male and female students of the University of Science and Technology branch in the city of Tazi, and whose results found that there were no statistically significant differences between the average opinions of individual male and female students.

Table (14) Results of test (T) for independent samples to indicate differences in gender variable

Dimension	**variable**	**frequency**	**mean**	**Standard deviation**	**F of**	**Sig.**	**T value**	**Sig.**
academic leaders	male	81	53.14	6.225	2.597	0.110	0.103	0.918
	female	37	53.00	7.420				
entrepreneurship culture	male	81	71.12	10.121	2.256	0.136	0.230	0.818
	female	37	7065	10.990				

. The table was designed by the researcher, SPSS outputs

To test whether there are differences between the average responses of academic leaders in promoting the culture of entrepreneurship among Saudi university students attributed to the gender variable, the researcher resorted to using the (T) test for independent samples. The reason for this is due to the existence of two categories for the gender variable, and based on the significance of the differences shown in Table (14), The value of (T) with regard to the academic leadership axis as well as the entrepreneurship culture axis ranged between (0.103 to 0.230), and since the calculated statistical significance levels are (0.818 to 0.918 > 0.05) with statistically significant homogeneity between the male and female categories, The researcher concludes that there are no statistically significant differences between the average responses of academic leaders in promoting the culture of entrepreneurship among Saudi university students attributed to the gender variable. Likewise, based on this, the researcher also concludes that the zero hypothesis is accepted, which is that there are no statistically significant differences between the average responses of academic leaders in promoting an entrepreneurial culture among Saudi university students attributed to the variable (gender). These results are consistent with a study (Alam, 2023), which

showed that there were no statistically significant differences between the responses of study members regarding the role of Saudi universities in spreading the culture of entrepreneurship according to the gender variable. It also agrees with the results of a study (Alam, 2023), which showed that there were no statistically significant differences between the responses of study individuals on the axes of the role of universities in spreading the culture of entrepreneurship attributed to the gender variable.

Table (15) Analysis of single variance to indicate differences according to years of experience in academic leadership

academic leaders	**Source of variance**	**Sum of squares**	**degree of freedom**	**Mean of squares**	**F value**	**sig**
	between groups	138.4	2	69.2	1.60	0.206
	within groups	4973.6	115	43.2		
	total	5112.0	117	-		
entrepreneurship culture	Source of variance	Sum of squares	degree of freedom	Mean of squares	F value	sig
	between groups	492.6	2	246.3	2.35	0.100
	within groups	12056.3	115	104.8		
	total	12548.9	117	-		

The table was designed by the researcher, SPSS outputs

Likewise, in the context of answering the eighth hypothesis in Table (15), the statistical results of the single variance analysis according to years of experience in academic leadership indicate that the value of F with regard to the academic leadership axis as well as the entrepreneurship culture axis ranged between (1.60 to 2.35), and since the calculated levels of statistical significance (0.100 to 0.206 > 0.05), The researcher also concludes that there are no statistically significant differences between the average responses of academic leaders in promoting a culture of entrepreneurship among Saudi university students attributed to the variable of years of experience in academic leadership. Similarly, and based on this, the researcher also concludes that the null hypothesis is accepted, which is that there are no statistically significant differences between the average responses of academic leaders in promoting an entrepreneurial culture among Saudi university students, attributed to the variable (years of experience in academic leadership).

able (16) Single variance analysis to indicate differences depending on the age group variable

academic leaders	**Source of variance**	**Sum of squares**	**degree of freedom**	**Mean of squares**	**F value**	**sig**
	between groups	73.303	2	36.652	0.837	0.436
	within groups	5038.671	115	43.815		
	total	5111.975	117	-		
entrepreneurship culture	Source of variance	Sum of squares	degree of freedom	Mean of squares	F value	sig
	between groups	207.106	2	103.553	0.965	0.384
	within groups	12341.82	115	107.32		
	total	12548.92	117	-		

The table was designed by the researcher, SPSS outputs

Also, in the context of answering the eighth hypothesis in Table (16), the statistical results of the single variance analysis according to different age groups indicate that the value of F with regard to the academic leadership axis as well as the entrepreneurship culture axis ranged between (0.837 to 0.965) and since the calculated statistical significance levels are (0.436 to 0.384 > 0.05), The researcher similarly concludes that there are no statistically significant differences between the average responses of academic leaders in promoting a culture of entrepreneurship among Saudi university students attributed to the age group variable of academic leaders. Likewise, based on this, the researcher also concludes that the zero hypothesis is acceptable, which is that there are no statistically significant differences between the average responses of academic leaders in promoting the culture of entrepreneurship among Saudi university students attributed to the variable (age groups).

Table (17) Analysis of single variance to indicate differences depending on the specialization variable

academic leaders	**Source of variance**	**Sum of squares**	**degree of freedom**	**Mean of squares**	**F value**	**sig**
	between groups	271.7	4	67.9	1.586	0.183
	within groups	4840.3	113	42.8		
	total	5112.0	117	-		
entrepreneurship culture	Source of variance	Sum of squares	degree of freedom	Mean of squares	F value	sig
	between groups	456.6	4	114.1	1.067	0.376
	within groups	12092.4	113	107.0		
	total	12548.9	117	-		

The table was designed by the researcher, SPSS outputs

Finally, in the context of answering the eighth hypothesis in Table (17), the statistical results of the single variance analysis according to the specialization indicate that the value of F with regard to the academic leadership axis as well as the entrepreneurship culture axis ranged between (0.1.586 to 1.067) and since the calculated statistical significance levels are (0.183 to 0.376 > 0.05), The researcher concludes that there are no statistically significant differences between the average responses of academic leaders in promoting a culture of entrepreneurship among Saudi university students attributed to the specialization variable of academic leaders. Likewise, based on this, the researcher also concludes that the zero hypothesis is accepted, which is that there are no statistically significant differences between the average responses of academic leaders in promoting a culture of entrepreneurship among Saudi university students attributed to the variable (specialization).

Results of the ninth hypothesis: which states that "**there are no challenges facing academic leaders in promoting a culture of entrepreneurship among students in light of the transformation project for entrepreneurial universities from the point of view of academic leaders**". To test the validity of this hypothesis, the significance of the differences between the hypothetical average of the challenges facing academic leaders in promoting a culture of entrepreneurship among students was tested in light of the transformation project for entrepreneurial universities from the point of view of academic leaders:

Table (18) Arithmetic averages and values of (T) and their significance for the reality of the challenges facing academic leaders in enhancing the culture of entrepreneurship among students in light of the transformation project for entrepreneurial universities from the point of view of academic leaders

no	Item statement	Sample	Sample mean	Standard deviation	weight mean	degree of challenge	T value	sig	Ranking
1	limited budget provided to academic leaders to support student entrepreneurial projects .	118	4.65	0.68	0.93	very high	19.89	0.000	1
2	Poor motivation of academic leaders for student participation in entrepreneurial activities .	118	4.11	1.08	0.82	high	7.11	0.000	4
3	Lack of academic competencies specialized in entrepreneurship, which limits the ability of academic leaders to develop effective entrepreneurship programs.	118	4.53	0.76	0.91	very high	16.23	0.000	2
4	Limited activation of the Entrepreneurship Center limits the ability of academic leaders to develop students' entrepreneurial skills .	118	3.48	1.19	0.70	high	0.76	0.450	5
5	The lack of programs and courses adopted by academic leaders to promote a culture of entrepreneurship among students.	118	4.23	0.89	0.85	very high	10.11	0.000	3
	overall average	118	4.20	0.92	0.84	very high	-	-	-

The table was designed by the researcher, SPSS outputs

To determine the reality of the challenges facing academic leaders in enhancing the culture of entrepreneurship among students and their impact on adopting the model of entrepreneurial universities from the point of view of academic leaders, the researcher resorted to calculating the necessary statistical indicators for the level and degree of the challenges facing academic leaders in enhancing the culture of entrepreneurship among students in light of the project Transformation of entrepreneurial universities from the point of view of academic leaders, and the results, as in the table above, were as follows:

• The arithmetic averages of the challenges facing academic leaders in enhancing the culture of entrepreneurship among students and its impact on adopting the entrepreneurial university model from the point of view of academic leaders ranged between (3.48 to 4.65 out of 5) with an overall average of (4.20) and a standard deviation of (0.92) and a relative weight equal to (93%) from the point of view of academic leaders These are indicators that fall within the fourth average category (3.40 to 4.19) and the fifth category (4.20 to 5), which means that there are challenges ranging between the very high and high scores, and their ranking in terms of importance was as follows:

1.First Rank: This is where the content of Challenge 1 comes in, which is "the limited budget provided to academic leaders to support student entrepreneurial projects," with an arithmetic mean of (4.65 out of 5), a standard deviation of (0.68), and a relative weight representing (93%) from the point of view of academic leaders in Saudi Universities It is one of the indicators of the fifth intermediate category (4.20 to 5) and it is considered one of the high-grade challenges. The value of T (19.889) is high and statistically significant at the level of this challenge, and this is supported by (93%) of the total academic leadership in Saudi universities.

2.Second Rank: It comes with the content of Challenge 3, which is "the lack of academic competencies specialized in entrepreneurship, which limits the ability of academic leaders to develop effective entrepreneurial programs.", with an arithmetic average of (4.53 out of 5), a standard deviation equal to (0.76), and a relative weight representing (92%) from the point of view of academic leaders in Saudi universities It is likewise one of the indicators of the fifth average category (4.20 to 5) and it is considered one of the challenges of a very high degree, and the value of T (16.233) is high and statistically significant at a level of (0.000) at the level of this challenge.

3.Third Rank: It comes with the content of Challenge 5, which is "the lack of programs and courses adopted by academic leaders to enhance the culture of entrepreneurship among students", with an arithmetic average of (4.23 out of 5), a standard deviation equal to (0.89), and a relative weight representing (85%) from the point of view of academic leaders in Saudi universities It is likewise one of the indicators of the fifth intermediate category (4.20 to 5) and it is also considered one of the challenges with a very high degree, and the value of T (10.108) is high and statistically significant (0.000) for the very high degree of this challenge from the point of view of the academic leaders in Saudi universities.

4.Fourth Rank: This is where the content of Challenge 2 comes in, which is "weak motivation of academic leaders for student participation in entrepreneurial activities," with an arithmetic mean of (4.11 out of 5), a standard deviation of (1.08), and a relative weight of (82%) from the point of view of academic leaders in Saudi universities It is one of the indicators of the fourth intermediate category (3.40 to 5) and it is considered one of the high-grade challenges and the value of T (7.114) is high and statistically significant (0.000) for the high grade of this challenge from the point of view of academic leaders in Saudi universities.

5.Fifth Rank: This is where the content of Challenge 2 comes in, which is "Limited activation of the Entrepreneurship Center limits the ability of academic leaders to develop students' entrepreneurial skills," with an arithmetic mean of (3.48 out of 5), a standard deviation of (1.19), and a relative weight of (70%) from the point of view of academic leaders in Saudi universities. These are indicators of the fourth intermediate category (3.40 to 5) Thus, it is considered one of the high-grade challenges, and the value of T (0.759) is low and statistically insignificant at a significant level (0.450 >0.05), meaning that the value of (T) that the average score obtained by this challenge is not of great importance from the point of view of the research sample of academic leaders in Saudi universities.

General mean: of the challenges facing academic leaders in promoting a culture of entrepreneurship among students and their impact on adopting the entrepreneurial university model from the point of view of academic leaders, which amounted to (4.20 out of 5), a standard deviation equal to (0.92), and a relative weight representing the point of view of (84%) of academic leaders He points out that the general picture of the challenges facing academic leaders in enhancing the culture of entrepreneurship among students and its impact on adopting the model of entrepreneurial universities is considered one of the high-level challenges as it is considered one of the indicators of the fifth category of the scale (4.20 to 5) Thus, it confirms that the level of challenges facing academic leaders in enhancing the culture of entrepreneurship among students in light of

the transformation project for entrepreneurial universities requires many plans and programs through which the impact of these challenges can be reduced and minimized in Saudi universities, which seek with all their effort to enhance the culture of entrepreneurship among students, and these results are consistent with the results of the study (Al-Dosari and Al-Saqr, 2023) which found that the university administration agrees to a (significant) degree with the obstacles that limit its role towards promoting a culture of entrepreneurship among students. It also agrees with the study of (Al-Arifi, 2022) which found that the study sample of faculty members agreed with the challenges facing academic leaders in Saudi universities, which hinder the transformation into entrepreneurial universities, and agrees with the study of (Mustafa, 2020) which found that there are challenges represented by the lack of an independent program in entrepreneurship at the level of public universities, and the weak provision of curricula among Saudi universities Entrepreneurship is taught by faculty members from outside scientific disciplines, and it is also consistent with the study of (Koryakinam, 2023) which showed the existence of external challenges represented mainly in regulations, legislation and financing and internal challenges related to administrative organization, which was conducted in a group with senior management (vice presidents of the university, college directors and administrators) and middle management (deans of colleges and heads of departments) by conducting (28) interviews.

10.Proposed solutions to enhance the culture of entrepreneurship among Saudi university students in light of the transformation project for entrepreneurial universities.

In light of the transformation projects towards pioneering universities, the Ministry of Education in the Kingdom of Saudi Arabia is working to empower many universities to contribute to economic development, as the University Affairs Council has issued regulations, regulations and policies aimed at transforming scientific research and knowledge into applied innovations and products of economic value. Therefore, this approach primarily requires strengthening and instilling a culture of entrepreneurship among students as a fundamental and significant pillar of such a transformation. Based on field studies and the study's objectives, a set of solutions can be proposed to promote an entrepreneurial culture. The proposed solutions include the following dimensions:

First: Regarding the vision dimension and university strategy:

- Working to review and restructure universities in terms of vision and strategy, in line with the objectives of the Universities Entrepreneurship Initiative, and investing in the role of universities in promoting a culture of entrepreneurship.

- Working to integrate entrepreneurial (applied) curricula, and establishing business incubators and accelerators on a mandatory basis in accordance with a detailed and clear vision for universities.

- Working to ensure alignment with national plans, for example, linking all entrepreneurial activities and programs to one of the Human Capacity Development Program initiatives emanating from Saudi Arabia's Vision 2030, which contributes to creating a stimulating environment for faculty members to transform their innovative ideas into start-up companies and diversify sources of income, thus creating promising job opportunities.

Second: With regard to leadership and university support

- Establishing a university-owned start-up company that supports and markets entrepreneurial ideas and projects presented by faculty members and students.

- Urging Saudi universities to benefit from the experiences of international universities and adopt a global model through which universities transform from traditional methods to pioneering methods that support creativity and innovation.

Urging academic leaders in Saudi universities to work hard to direct all scientific research programs to support applicable and implementable applied scientific research and to be marketed commercially.

Third: With regard to education and partnerships:

- Developing methods for evaluating specialized courses in entrepreneurship and relying on a realistic business model (Business Model Canvas) rather than traditional tests.

- Working to establish academic and qualitative entrepreneurship programs at various academic levels, including diplomas, bachelor's, master's, and doctorates.

- Working to include a two-hour entrepreneurship course as one of the compulsory courses in all scientific specializations at Saudi universities.

- Focus on applying real project-based learning (PBL) methods as a basic method in delivering entrepreneurial courses at the university.

- Establishing strategic partnerships with the private sector and providing contractual privileges to companies, institutions, or organizations that adopt student projects, with the aim of motivating students to apply advanced creative ideas in partnerships with high financial and spatial capabilities.

11.Study recommendations and suggestions:

Based on the findings of the study, especially with regard to the reality of academic leadership practices and their impact on enhancing the culture of entrepreneurship in Saudi universities, the researcher recommends the following:

- Working to hold and organize seminars, courses, and workshops within universities to raise awareness of the culture of entrepreneurship on an ongoing basis.

- Develop practical plans and programs that promote further agreements and partnerships with private sector companies to train students in entrepreneurial practices.

- Working to update academic curricula and programs at universities periodically to keep pace with the requirements of developing and enhancing entrepreneurial culture.

- Working to develop the cognitive content of academic courses (compulsory and elective) specialized in promoting the concepts of entrepreneurship, creativity and innovation.

- Developing a culture of initiative, which is achieved by incorporating the values of innovation, creativity, proactivity, and risk tolerance calculated in the university's mission.

- Developing university plans that focus on the foundations of the transition towards education based on students' entrepreneurial projects.

- Developing detailed programs to activate business incubators and accelerators at universities to take students' ideas into account and transform them into emerging applied projects.

- Working to engage academic leaders more effectively in promoting entrepreneurial culture and linking their research to the applied aspect.

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