



## القيادة الريادية في الجامعات الأردنية في خضم التحولات الذكية

### *Entrepreneurial Leadership in Jordanian Universities Amid Smart Transformational Shifts*

د. تهاني إبراهيم العلي: جامعة عمان العربية، المملكة الأردنية الهاشمية.

*Dr. Tahani Ibrahim Al-Ali: Amman Arab University, Hashemite  
Kingdom of Jordan.*

[tahanishtayat@yahoo.com](mailto:tahanishtayat@yahoo.com)

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### الملخص:

هدفت هذه الدراسة إلى استكشاف القيادة الريادية في الجامعات الأردنية في ظل تحولات العصر الرقمي، مع التركيز على التحديات القائمة ووضع استراتيجيات للتغلب عليها. اعتمدت الدراسة المنهج النوعي، حيث أجرى الباحث مقابلات مع 25 عضواً من أعضاء هيئة التدريس في الجامعات الحكومية بمحافظة إربد.

كشف تحليل المقابلات عن ست استراتيجيات رئيسية مقترحة لمواجهة التحديات: منح القادة الأكاديميين استقلالية أكبر، تعزيز ثقافة تنظيمية داعمة للابتكار، تطوير المهارات القيادية الرقمية، إعادة هيكلة الأنظمة الإدارية التقليدية، إشراك أعضاء هيئة التدريس في صنع القرار، وتخصيص الموارد المالية والتكنولوجية.

وتوصي الدراسة باعتماد هذه الاستراتيجيات المقترحة من قبل قيادات الجامعات، وتكثيف البرامج التدريبية في القيادة الرقمية والريادية، بالإضافة إلى إجراء مزيد من البحوث التي تربط القيادة الريادية بمتغيرات أخرى.

**الكلمات المفتاحية:** القيادة الريادية، الجامعات الأردنية، التحولات الذكية، التحديات، استراتيجيات التغلب عليها.



## Abstract

This study aimed to explore entrepreneurial leadership in Jordanian universities amidst digital-era transformations, focusing on existing challenges and developing strategies to overcome them. The study adopted a qualitative approach, with the researcher conducting interviews with 25 faculty members from public universities in Irbid Governorate.

The analysis of the interviews revealed six key proposed strategies for addressing these challenges: empowering academic leaders with greater autonomy, fostering an organizational culture that supports innovation, developing digital leadership skills, restructuring traditional administrative systems, involving faculty members in decision-making, and allocating financial and technological resources.

The study recommends that university leaders adopt these proposed strategies, intensify training programs in digital and entrepreneurial leadership, and conduct further research linking entrepreneurial leadership to other variables.

**Keywords:** Entrepreneurial leadership, Jordanian universities, smart transformations, challenges, strategies for overcoming them.



## Introduction

Universities are among the key institutions responsible for advancing and developing knowledge, in alignment with modern technological demands and the rapid transformations occurring in today's environment. These changes require timely responsiveness and proper adaptation across all aspects of daily life. The educational process has become one of the most prominent domains impacted by digital transformation, encompassing all its components and pillars. Consequently, universities must be prepared to embrace digital transformation and integrate it into teaching, academic, and operational processes of all types and purposes. This integration is essential for fulfilling institutional functions effectively, as universities serve as educational incubators that contribute to enhancing productivity, improving overall performance, and playing a vital role in reform and purposeful change.

In this context, universities require qualified human resources, visionary leaders, and experts in modern management and technology who possess the ability to utilize and activate skills effectively. These individuals must be capable of performing their duties accurately and efficiently, guided by a clear vision that enables them to invest available resources in ways that support educational and professional processes within university environments. Their efforts should align with the evolving demands of knowledge, necessitating the activation of emerging innovations and developments. Universities are now exploring diverse educational models, including the integration of artificial intelligence (AI) into various applications. The incorporation of AI into curricula and educational practices has become a crucial tool for addressing challenges and overcoming barriers in higher education (Abu Khalid, 2020).



AI applications have emerged as one of the most significant areas of interest for universities, aiming to implement and utilize them in ways that enhance the educational process. These applications foster commitment and discipline among staff by strengthening mutual trust, promoting human relations, and facilitating access to new and innovative solutions in the digital age. They also encourage participatory approaches and contribute to achieving expected outcomes, which positively influence performance and productivity overall (Al-Yazji, 2019).

Through the efforts of entrepreneurial leaders and university staff, AI applications have helped improve educational methods, strategies, and professional growth. They have enabled the activation of latent potential to keep pace with the rapid evolution of university work environments. This necessitates a scientific understanding of AI applications and mastery of their use to support educational reform and optimize the learning environment. Providing a suitable academic and professional climate that meets the needs and requirements of the educational system is essential for achieving satisfactory and acceptable results. The success of any educational process is measured by its ability to respond swiftly to technological changes and to utilize computer-based tools and software on a broad scale (Lou, 2018).

Observing the current reality of Jordanian universities reveals a pressing need for staff to activate AI applications across their administrative, educational, and leadership practices. University environments naturally face challenges that require swift, effective, and well-planned decisions to avoid errors or their repetition. These environments also experience rapid and substantial development, highlighting the urgent need for AI integration by



university personnel. Such integration is vital for advancing institutional performance and realizing the mission and educational vision of universities. Therefore, this study aims to explore entrepreneurial leadership in Jordanian universities amid smart transformational shifts.

### **Theoretical Background and Previous Studies**

In recent years, Jordanian universities have witnessed a surge in technological applications that demand attention within the realm of knowledge and academic development. These innovations have permeated educational processes across university environments, prompting academic leaders to act with motivation and strategic foresight to overcome obstacles and solve problems that hinder institutional progress. Their efforts aim to align with the trajectory of technological advancement and institutional excellence.

Entrepreneurial leaders play a pivotal role in universities by responding swiftly to the integration of artificial intelligence (AI) and smart technologies across various domains. Their scientific and practical competencies, along with their experience in educational systems, are essential for enhancing productivity, improving performance, and elevating the quality of academic outcomes (Abdelnour, 2004). Such leaders strive to optimize teaching and learning processes, foster conducive educational climates, and position their institutions for excellence by improving expectations and outcomes (Afifi, 2014).

Salama (2020) defines artificial intelligence as “a set of new methods and approaches in programming computer systems that can be used to develop systems simulating elements of human intelligence, enabling replication of facts and rules represented in computer memory.” The researcher concludes that AI, when applied through modern technological methods in higher



education, aligns with global quality assurance standards, contributing to educational excellence. As a branch of computer science, AI represents a foundational pillar in today's technological landscape, enabling machines to perform tasks traditionally carried out by humans—such as learning, reasoning, and decision-making.

Jordanian universities have increasingly invested in automation and smart digital technologies, enhancing the competencies of leaders, staff, and students. These technologies empower individuals to design virtual reality programs for educational purposes and develop high-level skills in using smart applications in the digital age. Recent technological developments in AI have become a driving force behind the success and advancement of educational systems, particularly through neural networks that address the digital needs of individuals and groups in academic settings (Abu Zaqiya, 2018).

AI applications have helped academic leaders and staff improve teaching strategies, adopt modern delivery methods, and raise institutional efficiency and reputation (Hinojo et al., 2019). These technologies also increase awareness among staff regarding the need to respond to rapid digital transformations, enhance cognitive processes, and maintain competitive advantage among peer institutions. They support goal achievement, foster shared responsibility, and facilitate learning through advanced monitoring tools (Al-Astal et al., 2021).

AI aims to elevate universities across all levels, improve institutional efficiency, foster a successful learning culture, and enhance educational practices through collaboration, positive behavior reinforcement, and qualitative changes in service delivery. It promotes satisfaction, harmony, and a streamlined operational environment, enabling the exchange and



development of new expertise and the formation of educational, technical, and digital orientations (Ma, 2018).

Abdul Salam (2021) highlights that AI saves time and effort, demonstrating leaders' ability to use computers effectively by activating available digital tools and learning through real-world application. It enables flexible problem-solving and strategic thinking tailored to educational contexts. Shaban (2020) adds that AI is characterized by symbolic representation, experimental inquiry, and adaptive learning—allowing individuals to acquire positive habits and attitudes through observation, reasoning, and error correction.

Based on the researcher's analysis of AI applications in Jordanian universities, it is evident that AI influences all aspects of administrative and educational structures. It creates a balance between educational processes and individuals' ability to adapt to technological changes. Staff members exhibit motivation to apply their expertise in service of institutional goals, demonstrating individual and collective responsibility. Therefore, university personnel must be fully prepared to embrace change, as they represent the cornerstone of societal progress. Their efforts must align with clear global standards to elevate the educational and administrative system toward sustained excellence.

### Previous Studies (Chronologically Ordered)

- Zoubi, A., & Rababah, Z. (2016). Investigated the level of entrepreneurial leadership among secondary school principals in Irbid and its relationship with administrative creativity. Using a correlational descriptive method with a sample of 120 principals, the study found a moderate level of entrepreneurial leadership and a significant positive correlation with creativity.



- Abu Zaid, M. (2018). Explored the reality of entrepreneurial leadership in Palestinian universities and its role in fostering institutional innovation. Through qualitative interviews with 15 academic leaders, the study concluded that entrepreneurial leadership enhances workplace innovation but faces challenges such as limited funding and bureaucratic constraints.
- Harahsheh, M., & Zoubi, R. (2020). Examined the impact of entrepreneurial leadership on job quality in Jordanian universities. Using a descriptive analytical approach with 250 faculty members, the results showed that entrepreneurial leadership positively influences job satisfaction through empowerment, effective communication, and flexible decision-making.
- Attoum, S., & Abu Dalu, H. (2022). Studied the relationship between entrepreneurial leadership and digital transformation in private Jordanian universities. The quantitative study included 180 administrative staff and revealed that entrepreneurial leadership accelerates digital transformation by supporting innovation and fostering a change-friendly environment.
- Momani, F. et al. (2025). Analyzed the impact of digital leadership in building smart organizations within private Jordanian universities. Using a descriptive analytical method with 300 academic and administrative staff, the study confirmed that digital leadership—an extension of entrepreneurial leadership—enhances institutional performance and excellence in university settings.

### Commentary on Previous Studies

To the best of the researcher's knowledge, no study has directly addressed the topic of entrepreneurial leadership in Jordanian universities amid smart



transformational shifts in a comprehensive manner. However, several studies have implicitly tackled related variables, such as digital leadership or innovation, as seen in (Attoum & Abu Dalu, 2022) and (Momani et al., 2025). These studies differ in objectives, samples, and contexts from the current research, yet they contributed to enriching the theoretical framework, refining the research tools, and guiding the statistical analysis. The present study distinguishes itself by offering a focused investigation into entrepreneurial leadership in Jordanian universities during the academic year 2024/2025, emphasizing challenges and strategies for overcoming them.

### **Problem Statement**

Jordanian universities are experiencing rapid technological transformations that challenge their ability to achieve strategic goals as planned. Despite efforts to embrace digital knowledge and innovation, many institutions still struggle to overcome emerging obstacles within their academic environments. These challenges stem from the need to keep pace with the evolving demands of the digital age.

Through the researcher's observation of the reality of entrepreneurial leadership in Jordanian universities, it was noted that institutions vary in their activation of entrepreneurial leadership practices. This variation is influenced by differences in organizational culture, digital infrastructure, and readiness for rapid change and smart transformation. Previous studies, such as those by (Zoubi & Rababah, 2016) and (Attoum & Abu Dalu, 2022), have highlighted disparities in the level of entrepreneurial leadership across universities. Therefore, this study aims to explore entrepreneurial leadership in Jordanian universities amid smart transformational shifts: challenges and strategies for overcoming them.

## Research Question

**This study seeks to answer the following question:**

- **Main Question:** What are the strategies for overcoming the challenges of entrepreneurial leadership in Jordanian universities amid smart transformational shifts, from the perspective of faculty members?

## Significance of the Study

The findings of this study are expected to benefit:

- **University Presidents:** By providing feedback on strategies to overcome challenges in entrepreneurial leadership, aiding in the development of current and future strategic plans.
- **Academic and Administrative Leaders:** By offering insights and recommendations that support the advancement of digital knowledge and institutional innovation.
- **Educational Researchers:** By serving as a valuable reference for conducting similar studies, enriching the academic literature on leadership and digital transformation in higher education.

## Objectives of the Study

This study aims to:

- Identify strategies for overcoming the challenges of entrepreneurial leadership in Jordanian universities amid smart transformational shifts, from the perspective of faculty members.
- Promote positive attitudes toward digital transformation and modern leadership practices, and assess their relevance to the current reality of Jordanian universities.

## Terminology of the Study

The study is defined by the following terms:

- **Entrepreneurial Leadership:** "The ability to anticipate future trends, initiate innovative strategies, and direct human and material resources toward achieving strategic goals that align with technological and digital transformations in academic environments" (Attoum & Abu Dalu, 2022).
- **Operational Definition:** Entrepreneurial leadership in this study refers to the ability of academic leaders to apply modern, flexible, and innovative leadership styles, utilizing smart technologies in decision-making and enhancing institutional excellence within Jordanian universities.

## Study Boundaries and Delimitations

- **Subject Boundary:** The study focuses on entrepreneurial leadership in Jordanian universities amid smart transformational shifts: challenges and strategies for overcoming them.
- **Human Boundary:** The study sample consists of faculty members from public Jordanian universities: Yarmouk University, Jordan University of Science and Technology, and Al-Balqa Applied University.
- **Spatial Boundary:** The study was conducted in public universities located within Irbid Governorate.
- **Temporal Boundary:** The study was carried out during the academic year 2024/2025.

## Study Delimitations

The generalizability of the study results is limited by the psychometric properties of the research instruments (validity and reliability), the representativeness of the sample, and the appropriateness of the statistical methods used in data analysis.

## Methodology and Procedures

- **Research Methodology:** The qualitative approach was adopted, as it suits the nature of the study which aims to explore strategies for overcoming the challenges of entrepreneurial leadership in Jordanian universities amid smart transformational shifts.
- **Study Population:** The study population consisted of all faculty members in public Jordanian universities located in Irbid Governorate during the academic year 2024/2025, totaling (2,323) faculty members according to the 2023 statistics of the Jordanian Ministry of Higher Education.
- **Study Sample:** A purposive sample of (25) faculty members was selected from public universities in Irbid Governorate. In-depth interviews were conducted with them to answer the study's main question regarding strategies to overcome entrepreneurial leadership challenges.
- **Study Instrument:** A set of open-ended questions was developed to conduct individual interviews with the selected faculty members. The aim was to explore the reality of entrepreneurial leadership in Jordanian universities, identify key challenges, and propose strategies to address them amid smart transformations.

- **Study Variables:**

- **Main Variable:** Entrepreneurial leadership in Jordanian universities.
- **Sub-Variables:** Leadership challenges, strategies for overcoming them, smart transformational shifts.

### Statistical and Analytical Techniques

To answer the research question, qualitative interviews were conducted and analyzed using thematic content analysis. Frequencies and percentages were extracted to identify common patterns and dominant themes in participants' responses.

### Results and Discussion

To answer the study's main question: "What are the strategies for overcoming the challenges of entrepreneurial leadership in Jordanian universities amid smart transformational shifts from the perspective of faculty members?" The researcher conducted qualitative interviews with (25) faculty members from public universities in Irbid Governorate. Participants were purposefully selected to ensure balanced representation across institutions. Each paragraph was treated as a unit of analysis, and after coding and synthesizing the responses, the researcher identified the following strategies:

1. **Strategy One:** Empowering academic leaders with greater autonomy in decision-making. This strategy was mentioned by (22) participants, representing (88%) of the sample. The researcher attributes this to the need for flexible leadership that can respond quickly to smart transformations. Bureaucratic constraints often hinder innovation and limit leaders' ability to implement strategic initiatives aligned with digital change.

2. **Strategy Two:** Building an organizational culture that supports innovation and entrepreneurial thinking. This strategy appeared in the responses of (20) participants, or (80%). Participants emphasized that the institutional environment often lacks motivational incentives for entrepreneurial initiatives. Traditional work cultures may resist change and fail to embrace creative ideas, which limits the effectiveness of entrepreneurial leadership.
3. **Strategy Three:** Developing digital leadership skills among academic leaders. This strategy was suggested by (19) participants, or (76%). The researcher notes that many leaders lack proficiency in digital tools such as data analytics, remote team management, and tech-based decision-making. This skill gap hinders their ability to lead effectively in smart environments.
4. **Strategy Four:** Restructuring administrative systems to align with digital transformation. This strategy was mentioned by (17) participants, or (68%). Participants pointed out that outdated procedures and paper-based systems slow down innovation and prevent leaders from responding efficiently to emerging challenges. Modernizing administrative frameworks is essential for enabling entrepreneurial leadership.
5. **Strategy Five:** Involving faculty members in leadership decision-making. This strategy was raised by (15) participants, or (60%). Faculty members expressed the importance of participatory leadership, where academic staff are engaged in strategic planning and decision-making. This fosters a sense of ownership and enhances the relevance and effectiveness of institutional decisions.

6. **Strategy Six:** Allocating financial and technological resources to support entrepreneurial initiatives. This strategy was mentioned by (13) participants, or (52%). The researcher attributes this to the lack of funding and digital infrastructure in many universities, which limits the implementation of innovative projects. Participants emphasized the need for sustainable investment in smart technologies and leadership development.

### Discussion of Results

The findings of this study align with previous research, including (Zoubi & Rababah, 2016), which emphasized the importance of empowering leaders, and (Attoum & Abu Dalu, 2022), which highlighted the link between entrepreneurial leadership and digital transformation. Similarly, (Momani et al., 2025) underscored the role of digital leadership in building smart organizations.

This study reveals that entrepreneurial leadership in Jordanian universities faces several challenges, including limited authority, weak organizational support, insufficient digital skills, and lack of resources. However, faculty members demonstrated strong awareness of the importance of entrepreneurial leadership and proposed practical, applicable strategies to overcome these barriers.

### Study Conclusions

The researcher concludes that entrepreneurial leadership is a key driver for institutional development in Jordanian universities amid smart transformational shifts. Its activation requires a flexible organizational culture, digitally competent leaders, inclusive decision-making, and sustained institutional support. Addressing the challenges of entrepreneurial



leadership contributes to improved academic performance and achievement of strategic goals.

### Study Recommendations

Based on the findings, the researcher recommends:

1. Adopting the proposed strategies from faculty members to overcome challenges in entrepreneurial leadership.
2. Promoting a culture of innovation and entrepreneurship within university environments.
3. Implementing training programs for academic leaders in digital and entrepreneurial leadership.
4. Revising traditional administrative systems to support smart transformation.
5. Encouraging participatory leadership by involving faculty in strategic decisions.



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