جـــامـعـة الـــشـرق الأوسـط
MIDDLE EAST UNIVERSITY
Amman - Jordan

The Impact of Digital Transformation on Strategic Decision-Making at Private Universities in Jordan

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Department of Business

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جـــامـعـــة الـــشـرق الأوسـط
MIDDLE EAST UNIVERSITY
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أثر التحول الرقمي على اتخاذ القرارات الاستراتيجية في الجامعات الخاصة في الأردن

إعداد

لجين أحمد سامي حضر

إشراف

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قدمت هذه الرسالة استكمالاً لمتطلبات الحصول على درجة الماجستير
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كانون الثاني، 2026

Defense Committee Decision

This thesis, titled **"The Impact of Digital Transformation on Strategic Decision-Making at Private Universities in Jordan,"** was written by Researcher **Lujain Ahmad Khader**. Was defended and approved on 14/01/2026.

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بِسْمِ اللهِ الرَّحْمٰنِ الرَّحِيْم

With the name of God, the Most Merciful, the Most Compassionate

My profound gratitude is first and foremost to Allah, the Almighty, for the divine grace of health, strength, and perseverance that guided me to the completion of this academic journey. His blessings have been my greatest sustenance.

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Lujain Ahmad Sami Khader

Dedication

To the roots that ground me and the branches that support my reach.

For my father, Ahmad: You are the first book I have ever read, and your strength has been the spine of every chapter of my life. This work stands on the foundation you built.

For my mother, Ghadeer: Your prayers have been the light that illuminated my path on the darkest of days. Your love is the ink with which this story is written.

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For my siblings, Laith, Lina, Lamia, and Mohammad: You are the silent warriors who guarded my peace and the joyful noise that reminded me of life beyond these pages. This triumph is our shared echo.

For my mate, Ahmad: You are the calm harbor in my storms and the warm sun in my successes. The next chapter awaits, and there is no one I would rather write it with.

With all that I am,
Lujain Ahmad Sami Khader

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The Impact of Digital Transformation on Strategic Decision-Making at Private Universities in Jordan

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Abstract

Purpose: This study examines the impact of digital transformation, as a multidimensional construct encompassing digital infrastructure, digital competence, digital operations, and digital organizational culture, on strategic decision-making through focusing on rationality, participation, speed, and political behavior in private universities in Jordan.

Methodology: The study adopts a quantitative, explanatory research design. Data were collected using a structured questionnaire distributed to academic and administrative leaders involved in strategic decision-making across all Jordanian private universities. A total of **313** valid responses were analyzed using descriptive statistics, correlation analysis, and multiple and simple regression techniques to test the study hypotheses**.**

Findings: The findings indicate a statistically significant impact of digital transformation on strategic decision-making. Results from the multiple regression analysis (Table 4.16) show that the integrated digital transformation model explains a substantial proportion of variance in strategic decision-making practices (R^2=.248). Digital transformation positively influences decision rationality, participation, and speed, while a strong digital organizational culture is associated with reduced political behavior in decision-making. Overall, the results confirm that digital transformation functions as a strategic enabler of effective and agile decision-making rather than merely a technological upgrade.

Practical implications: The study provides evidence-based guidance for university leaders and policymakers, emphasizing that strategic investment in digital transformation enhances governance quality, decision effectiveness, and organizational agility. Aligning digital initiatives with sound strategic decision-making practices is essential for maximizing institutional value in the higher education sector.

Originality/value: This study contributes to the literature by empirically examining the multidimensional relationship between digital transformation and strategic decision-making within the context of Jordanian private universities. It offers an integrated model that captures technological, human, operational, and cultural dimensions and provides context-specific evidence from a higher education environment.

Keywords: Digital Transformation, Strategic Decision-Making, Private Universities, Jordan.

أثر التحول الرقمي على صنع القرار الاستراتيجي في الجامعات الخاصة في الأردن

إعداد

لجين أحمد سامي حضر

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الملخص

الهدف: تهدف هذه الدراسة إلى فحص أثر التحول الرقمي بوصفه متغيراً متكاملاً متعدد الابعاد يشمل البنية التحتية الرقمية، والكفاءات الرقمية، والعمليات الرقمية، والثقافة التنظيمية الرقمية على صنع القرار الإستراتيجي من خلال أبعاد العقلانية، والمشاركة، والسرعة، والتحالفات السياسية في الجامعات الخاصة في الاردن.

المنهجية: اعتمدت الدراسة المنهج الكمي التفسيري، حيث تم جمع البيانات باستخدام استبانة منظمة وزعت على القيادات الأكاديمية والإدارية المشاركة في صنع القرار الإستراتيجي في الجامعات الخاصة الاردنية، بلغ عدد الاستبانات الصالحة للتحليل **313** استبانة، وتم تحليل البيانات باستخدام الإحصاء الوصفي، وتحليل الانحدار المتعدد والبسيط لاختبار فرضيات الدراسة.

النتائج: تشير النتائج إلى وجود تأثير ذي دلالة إحصائية للتحول الرقمي على عملية صنع القرار الاستراتيجي. وتُظهر نتائج تحليل الانحدار المتعدد (الجدول 4.16) أن نموذج التحول الرقمي المتكامل يُفسر نسبة كبيرة من التباين في ممارسات صنع القرار الاستراتيجي ($R^2 = 0.248$). يؤثر التحول الرقمي إيجابًا على عقلانية القرار، والمشاركة، وسرعته، بينما ترتبط ثقافة تنظيمية رقمية قوية بانخفاض السلوك السياسي في عملية صنع القرار. وبشكل عام، تؤكد النتائج أن التحول الرقمي يعمل كعامل تمكين استراتيجي لصنع قرار فعال ومرن، وليس مجرد ترقية تكنولوجية.

الأهمية التطبيقية: توفر نتائج الدراسة ارشادات قائمة على الأدلة لصناع القرار في الجامعات وواضعي السياسات، من خلال التأكيد على أن الاستثمار الإستراتيجي في التحول الرقمي يسهم في تحسين جودة الحوكمة وفعاليات القرارات والرشاقة التنظيمية. كما تبرز أهمية مواءمة المبادرات الرقمية مع ممارسات صنع القرار الإستراتيجي الرشيد لتحقيق أقصى قيمة مؤسسية في قطاع التعليم العالي.

الأصالة والقيمة: تسهم هذه الدراسة في الادبيات العلمية من خلال الفحص التجريبي للعلاقة متعددة الأبعاد بين التحول الرقمي وصنع القرار الإستراتيجي في سياق الجامعات الخاصة الاردنية. كما تقدم نموذجاً متكاملاً يجمع بين الأبعاد التقنية والبشرية والتشغيلية والثقافية، وتوفر أدلة سياقية من بيئة تعليم عالٍ.

الكلمات المفتاحية: التحول الرقمي، صنع القرار الاستراتيجي، الجامعات الخاصة، الأردن

Chapter One
Background and Problem Statement

1.1 Introduction

Digital transformation has become one of the most powerful forces reshaping higher education worldwide. Universities are increasingly expected to merge traditional academic missions with data-driven, technology-enabled models of governance, teaching, and service delivery. Rather than being limited to the automation of isolated tasks, digital transformation is now understood as a strategic reconfiguration of how institutions create, deliver, and sustain value for their stakeholders, supported by integrated digital infrastructure, analytics, and new forms of collaboration (Bharadwaj et a., 2013; Rêgo et al., 2022). In Jordan, these global shifts intersect with ambitious national agendas such as the Jordanian Digital Transformation Strategy 2026–2028, which positions digitalization as a central pillar for economic and social development and explicitly highlights education as a priority sector for advanced digital infrastructure, data-driven governance, and inclusive access to services.

Within this global shift, private universities in Jordan occupy a particularly sensitive position. They must compete for students, funding, and reputation while operating under growing pressure to demonstrate agility, accountability, and responsiveness to rapid changes in the market demands and student expectations. Studies indicate that Jordanian universities have made substantial investments in digital infrastructure, institutional platforms, and support systems. Yet the maturity of digital transformation remains uneven across institutions and is often assessed mainly in terms of technical adoption and service provision, rather than its deeper impact on governance and leadership practice (Al-Sayyid, 2022). Simultaneously, students, faculty members, and administrators navigate this transformation daily- using new portals, learning management systems, and communication channels that can either empower or overwhelm, depending on how thoughtfully these tools are integrated into institutional decision-making processes.

International research underscores that digital transformation outcomes depend not merely on organizational adoption but significantly on organizational culture, leadership, and digital competencies. For instance, studies in Jordanian small and medium-sized enterprises and other organizational settings highlight that digital transformation

enhances practices when supported by a learning culture and collaborative, data-driven leadership (Hasan et al., 2025; Cyfert et al., 2025). These findings are highly relevant to private universities, where strategic decisions rely increasingly on data interpretation and digital workflows. From a strategic management perspective, such elements align with the resource-based view and dynamic capabilities theory, positioning digital infrastructure, competencies, operations, and culture as essential strategic resources for sustained competitive advantage (Barny, 1991; Teece et al., 1997).

Despite the growing body of work on digital transformation in education and in Arab organizations more broadly, there remains a noticeable gap in empirical studies that explicitly connect digital transformation dimensions with the quality and speed of strategic decision-making within higher education institutions. Arabic research has begun to explore how digital transformation enhances the effectiveness of strategic decisions in university settings, showing that when administrative leaders possess stronger digital capabilities, they are better able to take effective strategic decisions and to achieve organizational goals (Al-Hamdani et al., 2023). Yet these studies are largely situated in other national contexts and do not focus on the specific realities of Jordanian private universities, where governance structures, market dynamics, and regulatory environments introduce distinctive challenges and opportunities. Consequently, there is limited empirical evidence on how the four key dimensions of digital transformation, digital infrastructure, digital competence, digital operations, and digital organizational culture jointly shape strategic decision-making processes characterized by speed, rationality, participation, and internal politics.

To address how these digital dimensions translate into real-world strategic leadership, this study aims to examine the impact of digital transformation on strategic decision-making in private universities in Jordan. This research adopts a human-centered perspective, viewing decision-making not as a purely technical practice, adopted as a process in which leaders, faculty, and staff interpret data, negotiate interests, and strive to serve students and society under conditions of uncertainty. By focusing specifically on the interplay between digital infrastructure, competence, operations, and culture, the study seeks to provide a nuanced, context-rich understanding of what digital transformation means for the individuals leading and working in these institutions.

1.2 Study Purpose and Objectives:

The purpose of this study is to investigate and measure the impact of four core dimensions of digital transformation–digital infrastructure, digital competence, digital operations, and digital organizational culture- on the quality of strategic decision-making within Jordanian private universities.

To achieve this purpose, this study is guided by the following specific research objectives:

1. To investigate the extent to which universities apply digital transformation practices.
2. To measure the extent to which universities implement strategic decision-making processes.
3. To determine the nature of the relationship between the dimensions of digital transformation and strategic decision-making in universities.
4. To analyze the impact of digital transformation on strategic decision-making in universities.

1.3 Study Significance and Importance:

This study is considered one of the pioneering studies that examine the role of digital transformation in shaping strategic decision-making within private universities in Jordan, offering both theoretical and practical contributions to an underexplored higher education context. Its importance arises from both theoretical and practical considerations, as it addresses an emerging area of research that remains underexplored in the higher education context. Accordingly, the importance of the study can be examined from two main perspectives:

Theoretical Importance: From a theoretical perspective, this study holds significant importance for researchers and scholars in the fields of strategic management, digital transformation, and higher education administration. It enriches existing literature by empirically examining the relationship between digital transformation and strategic decision-making in the context of private universities in a developing country. In addition, the study provides a validated measurement framework that can be utilized or extended in future research across similar institutional and regional settings.

Practical Importance: From a practical perspective, this study is important to organizational leaders, managers, and policymakers not only in the higher education sector but also across other knowledge-intensive and service-based industries. The findings provide actionable insights into how digital infrastructure, digital competencies, digital operations, and organizational culture can enhance strategic decision-making processes, including rationality, participation, and speed. Accordingly, the results can guide decision-makers in sectors such as healthcare, banking, telecommunications, and public services in leveraging digital transformation initiatives to improve strategic planning and organizational performance. Moreover, the study offers practical implications for organizations operating in emerging economies that seek to align digital transformation efforts with effective strategic governance.

1.4 Problem Statement and Study Questions:

Based on prior experience, observations, and interactions with academic and administrative leaders in private universities, Strategic decisions are often made under time pressure, with limited integration of real-time data from academic, financial, and administrative units. In many cases, information systems operate in silos, which restricts decision-makers' ability to access comprehensive and accurate data when needed. Additionally, although digital systems exist, they are not always fully utilized to support participative decision-making, resulting in limited involvement of middle management and academic leaders. Administrative complexity, layered approval processes, and occasional reliance on informal influence further slow decision execution. These operational realities highlight a gap between digital system availability and their effective use in enhancing rationality, participation, and speed in strategic decision-making, thereby underscoring the need for this study.

Empirical evidence from regional studies confirms this strategic governance gap. For instance, research on Jordanian private universities indicates that the maturity of digital transformation remains uneven and is often evaluated in terms of infrastructure rather than its deeper impact on governance and leadership practice (AL-Sayyid, 2022). Furthermore, the effectiveness of strategic decisions has been linked to the digital competencies of leaders (Al-Hamadani et al., 2023), suggesting that technological investment alone is insufficient. International research underscores that digital transformation outcomes depend significantly

on organizational culture, leadership, and competencies, not merely on technological adoption (Hasan et al., 2025; Cyfert et al., 2025).

Accordingly, this study seeks to address the identified research gap by examining the impact of digital transformation dimensions on strategic decision-making in private universities in Jordan. In particular, the study aims to determine whether digital transformation dimensions have a significant effect on strategic decision-making practices. Therefore, the problem of this study is ultimately represented in the following main question and sub-questions:

Does Digital Transformation have a statistically significant effect on strategic decision-making in Jordanian private universities?

•Sub-Questions

1.To what extent do the universities apply digital transformation?

2.To what extent do universities implement strategic decision-making?

3.Is there a relationship between the dimensions of digital transformation and strategic decision-making?

4.Is there an impact of digital transformation on decision-making at universities?

The research questions of this study are addressed using different analytical approaches. First and second sub-questions are answered using descriptive statistical analysis to identify the levels of digital transformation and strategic decision-making in private universities in Jordan. Third sub-questions addressed through relationship analysis to examine the association between digital transformation dimensions and strategic decision-making dimensions. Fourth sub-questions were examined through hypothesis testing, using regression analysis to determine the effectiveness of digital transformation on strategic decision-making.

1.5 Study Hypotheses

Based on the problem statement, study model, and fourth sub-question, the study adopts the following null hypotheses:

Main Hypothesis: H0: Digital transformation has no significant effect on strategic decision-making dimensions (rationality, participation, speed, and politics) in Jordanian private universities.

Sub hypotheses:

H0.1: The combined dimensions of digital transformation have no significant effect on the decision rationality in private universities in Jordan.

H0.2: The combined dimensions of digital transformation have no significant effect on the decision participation in private universities in Jordan.

H0.3: The combined dimensions of digital transformation have no significant effect on the decision speed in private universities in Jordan.

H0.4: The combined dimensions of digital transformation have no significant effect on the decision politics in private universities in Jordan.

1.6 Study Model

This research is designed to investigate the relationship between digital transformation and strategic decision-making within private universities in Jordan. The proposed study model positions digital transformation as an independent variable as the key influencing factor, while strategic decision-making is positioned as a dependent variable and is considered the main outcome of interest.

In this model, digital transformation is represented by four combinations: digital infrastructure, digital competences, digital operations, and digital organizational culture. Strategic decision-making is conceptualized as a multidimensional construct that encompasses rationality, participation, speed, and political behavior.

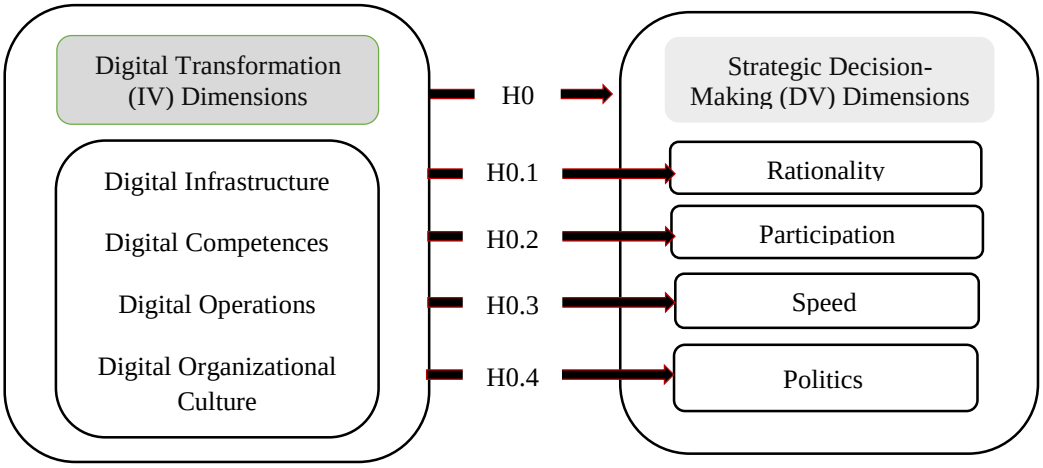


Figure (1.1): Study Model

Source: For **Independent Variable (Digital Transformation):** (Bharadwaj et al., 2013; Cyfert et al., 2025; Chen & Jaw, 2023; Avtalion et al., 2024; Nath, 2025; Li et al., 2025; Al Tahrawi & Al Shawabkeh, 2024; Rêgo et al., 2022; Afaishat et al., 2022). For **Dependent Variable (Strategic Decision-Making):** (Eisenhardt, 1989; Baum & Wally, 2003; Chen and Jaw, 2023; Al-Hamdani et al., 2023)

1.7 Study Operational Definitions:

This section presents the operational definitions of the key variables examined in the current study. Operational definitions clarify how each variable is measured and observed in practice within the context of Jordanian private universities. The operationalization of the study variables is consistent with the theoretical framework discussed in Chapter Two and provides the basis for the research instrument and empirical analysis.

In the current study, all variables are practically measured using a structured questionnaire administered to academic and administrative leaders in Jordanian private universities. Each variable is measured through multiple questionnaire items designed to capture its specific dimensions. For example, selected items in the questionnaire (e.g., Questions 1-4) are used to measure aspects of digital transformation, while other sets of items are used to measure the dimensions of strategic decision-making. Detailed information regarding item allocation, measurement scale, and analysis procedures is provided in Chapter Three.

1.7.1 Digital Transformation:

defined as a multidimensional construct reflect the extent to which Jordanian private universities adopt and utilize digital technologies across infrastructure, competence,

operations, and organizational culture, as assessed through the questionnaire responses of academic and administrative leaders, questions from (116) (Appendix -3)

1.7.2 Digital Infrastructure:

Defined as the availability and effectiveness of technological systems and digital platforms that provide reliable information and analytical support for strategic decision-making in Jordanian private universities. This dimension is measured through questionnaire items from question (1) to question (4).

1.7.3 Digital Competence:

Defined as the level of digital skills, knowledge, and readiness of academic and administrative staff to use digital systems and data outputs in strategic decision-making processes within private universities. This dimension is measured through questionnaire items from question (5) to question (8).

1.7.4 Digital Operations:

Defined as the degree to which digital technologies are integrated into administrative and managerial processes to support timely, efficient, and informed strategic decision-making in Jordanian private universities. This dimension is measured through questionnaire items from question (9) to question (12).

1.7.5 Digital Organizational Culture:

Defined as the extent to which Jordanian private universities promote openness to digital change, encourage data-driven decision practices, and support innovation through leadership and organizational norms. This dimension is measured through questionnaire items from question (13) to question (16).

1.7.6 Strategic Decision-Making:

defined as a multidimensional process encompassing decision rationality, decision participation, decision speed, and decision politics within strategic decisions made by leaders in Jordanian private universities, as assessed through the questionnaire responses of academic and administrative leaders, questions from (17- 32) (Appendix -3)

1.7.7 Decision Rationality:

Defined as the degree to which strategic decisions are grounded in data analysis, structured evaluation of alternatives, and objectives, and objective reasoning within Jordanian private universities. This dimension is measured through questionnaire items from question (17) to question (20).

1.7.8 Decision Participation:

Defined as the extent to which academic leaders, administrators, and relevant stakeholders are involved in strategic decision-making processes in Jordanian private universities. This dimension is measured through questionnaire items from question (21) to question (24).

1.7.9 Decision Speed:

Defined as the extent to which strategic decisions are made and executed promptly in response to internal and external challenges faced by Jordanian private universities. This dimension is measured through questionnaire items from question (25) to question (28).

1.7.10 Decision Politics:

Defined as the extent to which strategic decisions are influenced by internal power dynamics, personal dynamics, personal interests, and non-rational considerations within Jordanian private universities. This dimension is measured through questionnaire items from question (29) to question (32).

1.8 Limitations and Delimitations:

Human Limitation: This study was carried out on a sample of employees across various managerial levels within private universities in Jordan.

Place Limitation: This study was applied to private universities in Jordan.

Time Limitation: This study was conducted during the first semester of the academic year (2025/2026)

Study Delimitation: This study is confined to private universities in Jordan, which limits the generalizability of the findings to public universities or higher education institutions in other national or international contexts. Data collection relied on a structured questionnaire administered to a targeted sample, and the study faced practical challenges related to access to respondents, varying levels of participation, and the achieved response rate, all of which influenced the final dataset used for analysis.

Chapter Two
Theoretical Framework and Previous Studies

2.1 Introduction

This chapter presents the theoretical foundation and literature review relevant to the current study. It explains the concepts and dimensions of digital transformation and strategic decision-making and reviews the theoretical perspectives that support their inclusion in the research model. The chapter also discusses the relationship between digital transformation and strategic decision-making as addressed in previous empirical studies. In addition, it reviews relevant models used in earlier research and highlights the empirical gap that distinguishes the present study from prior work.

2.2 Definitions and Components of Variables:

This section presents the conceptual definitions and key components of the variables examined in the current study. It clarifies how digital transformation and strategic decision-making are defined in the context of Jordanian private universities and explains the rationale for selecting their respective dimensions. Defining the study variables provides a theoretical foundation for the research model and supports the formulation of the study hypotheses.

2.2.1 Digital Transformation

Digital transformation refers to an organization-wide process through which digital technologies are integrated into structures, processes, and practices to improve performance and strategic outcomes. Unlike digitization, which focuses on converting information into digital formats, or digitalization, which emphasizes automating existing processes, digital transformation involves a deeper reconfiguration of how organizations operate and create value (Bharadwaj et al., 2013; Nath, 2025).

In higher education institutions, digital transformation extends beyond teaching and learning technologies to include governance systems, administrative operations, and strategic planning processes. Universities increasingly depend on integrated digital platforms, analytics, and real-time data to support decisions related to academic programs, resource allocation, and institutional development (McCarthy et al., 2023;

Alomari, 2024). Accordingly, digital transformation in this study is treated as a multidimensional construct that reflects both technological and organizational change.

Based on prior literature, digital transformation in this study is examined through four interrelated components: digital infrastructure, digital competence, digital operations, and digital organizational culture (Espina-Romero et al., 2024; Cyfert et al., 2025).

Literature conceptualizes digital transformation as a multidimensional construct encompassing technological, human, operational, and cultural dimensions. These dimensions collectively shape the ability of institutions to generate, process, and utilize information for strategic decision-making. From a theoretical perspective, digital transformation aligns with the resource-based view and dynamic capabilities theory, which emphasizes the strategic value of digital resources and the organization's ability to reconfigure them in response to environmental change.

In the context of the current study, digital transformation is operationally defined as the extent to which Jordanian private universities adopt and utilize digital technologies across infrastructure, competence, operations, and organizational culture to support strategic decision-making.

2.2.2 Digital Infrastructure

Digital infrastructure represents the technological foundation that enables digital transformation within organizations. It includes hardware, software, networks, databases, cloud services, and integrated platforms that support the generation, storage, and exchange of information (Bharadwaj et al., 2013). In universities, digital infrastructure typically encompasses student information systems, learning management systems, enterprise resource planning platforms, and communication networks.

From a strategic perspective, digital infrastructure supports rational decision-making by providing timely access to reliable and integrated data. Studies indicate that organizations with well-developed digital infrastructure are better positioned to reduce information fragmentation and support evidence-based strategic decisions (McCarthy et al., 2023; Avtalion et al., 2024).

From a strategic management perspective, digital infrastructure constitutes a critical organizational resource that supports rational analysis and evidence-based decision-

making. Institutions with robust digital infrastructure are better positioned to access timely and accurate information, reduce uncertainty, and improve the quality of strategic choices.

In this study, digital infrastructure is operationally defined in this study as the availability and effectiveness of technological systems and digital platforms that provide reliable information and analytical support for strategic decision-making in Jordanian private universities.

2.2.3 Digital Competence

Digital competence refers to the skills, knowledge, and readiness of individuals to effectively use digital technologies in their work. It includes the ability to access, analyze, and apply digital information, collaborate through digital platforms, and adapt to technological change (Espina-Romero et al., 2024). In higher education institutions, digital competence applies to academic leaders and administrative staff involved in strategic planning and governance.

The literature emphasizes that digital technologies do not generate value unless users possess sufficient digital competence. Research in Arab and Jordanian contexts shows that gaps in digital skills may limit the effectiveness of digital transformation initiatives, even when infrastructure is available (Alsawat & Al-Harbi, 2022; Hasan et al., 2025). Therefore, digital competence is viewed as a critical human enabler of digital transformation.

The literature emphasizes that technological resources alone are insufficient to enhance decision-making unless accompanied by adequate human capabilities. From the perspective of dynamic capabilities theory, digital competence enables organizations to sense opportunities and threats and to leverage digital resources effectively.

In Conclusion, digital competence is operationally defined as the level of digital skills, knowledge, and readiness of academic and administrative staff to use digital systems and data outputs in strategic decision-making processes within private universities.

2.2.4 Digital Operations

Digital operations refer to the integration of digital technologies into daily administrative and managerial workflows. This includes automated processes, electronic approval systems, real-time dashboards, and analytics tools that support monitoring and planning activities (Nath, 2025). In universities, digital operations are evident in various areas, including admissions, registration, budgeting, reporting, and strategic planning.

Digital operations contribute directly to decision speed and efficiency by reducing manual procedures and enabling real-time access to information. Empirical studies suggest that organizations with advanced digital operations are more responsive to environmental changes and capable of taking faster strategic actions (Baum & Wally, 2003; Cyfert et al., 2025).

The literature suggests that digitally enabled operations enhance organizational agility and decision speed by reducing manual processes and enabling real-time access to strategic information. Digital operations, therefore, play a central role in translating digital resources into actionable strategic outcomes.

In this study, digital transformation is operationally defined in this study as the degree to which digital technologies are integrated into administrative and managerial processes to support timely, efficient, and informed strategic decision-making in Jordanian private universities.

2.2.5 Digital Organizational Culture

Digital organizational culture refers to the shared values, norms, and attitudes that influence how digital technologies are accepted and used within an institution. It reflects openness to change, support for data-driven decision-making, and encouragement of innovation and collaboration (Bakry, 2024; Li et al., 2025).

A supportive digital organizational culture reduces resistance to digital initiatives and enhances trust in digital systems and data outputs. In strategic decision-making, such a culture may limit political behavior by emphasizing transparency and objectivity, while a weak digital culture may lead to reliance on informal or non-rational practices (Elbanna et al., 2020).

The literature highlights digital organizational culture as a critical mediating factor that influences how digital technologies affect decision-making. Even in the presence of advanced digital systems, resistance to change or lack of leadership support may limit their strategic impact.

In Summary, digital organizational culture is operationally defined as the extent to which Jordanian private universities promote openness to digital change, encourage data-driven decision practices, and support innovation through leadership and organizational norms.

2.2.6 Strategic Decision-Making

Strategic decision-making refers to the process through which organizational leaders select courses of action that have long-term consequences for institutional direction and performance. In universities, strategic decisions typically involve uncertainty, multiple stakeholders, and high levels of complexity (Eisenhardt, 1989; Hoy & Tarter, 1998).

Strategic decision-making is conceptualized in this study as a multidimensional process comprising rationality, participation, speed, and political behavior. These dimensions reflect both analytical and behavioral aspects of decision-making in higher education institutions.

Literature conceptualizes strategic decision-making as a multidimensional construction that includes both formal analytical processes and informal organizational dynamics. The quality of strategic decisions is influenced by information use, stakeholder participation, time constraints, and political behavior within the organization.

In the current study, strategic decision-making is operationally defined as a multidimensional process encompassing decision rationality, decision participation, decision speed, and decision politics within strategic decisions made by leaders in Jordanian private universities.

2.2.7 Decision Rationality

Decision rationality refers to the extent to which strategic decisions are based on systematic analysis, objective information, and evaluation of alternatives (Eisenhardt,

1989). Access to accurate data and analytical tools enhances rational decision-making, particularly in digitally transformed environments.

The literature emphasizes that digital technologies can enhance decision rationality by improving access to data and analytical tools. However, rationality remains contingent upon the ability of decision-makers to interpret and apply digital information effectively.

In this study, decision rationality is operationally defined in this study as the degree to which strategic decisions are grounded in data analysis, structured evaluation of alternatives, and objectives, and objective reasoning within Jordanian private universities.

2.2.8 Decision Participation

Decision participation reflects the degree to which relevant stakeholders are involved in strategic decision-making processes. Participative decision-making enhances acceptance, legitimacy, and shared understanding, especially in academic environments characterized by shared governance (Hoy & Tarter, 1998; Elbanna et al., 2020).

Literature suggests that increased participation enhances decision legitimacy and acceptance, although it may also slow the decision-making process. Digital platforms can facilitate participation by enabling information sharing and collaborative discussions.

In this study, study participation is operationally defined as the extent to which academic leaders, administrators, and relevant stakeholders are involved in strategic decision-making processes in Jordanian private universities.

2.2.9 Decision Speed

Decision speed refers to the timeliness with which strategic decisions are made and implemented. Faster decision-making enables organizations to respond effectively to environmental changes and competitive pressures (Baum & Wally, 2003). Digital systems can reduce delays by streamlining information flows and approval processes.

Digital technologies are often associated with increased decision speed by reducing information processing time and enabling rapid communication. However, excessive speed may compromise decision quality if not balanced with adequate analysis.

In Conclusion, decision speed is defined in this study as the extent to which strategic decisions are made and executed promptly in response to internal and external challenges faced by Jordanian private universities.

2.2.10 Decision Politics

Decision politics refers to the extent to which strategic decisions are influenced by personal interests, power dynamics, or informal relationships rather than objective analysis (Elbanna et al., 2020). Political behavior may reduce transparency and slow decision-making, particularly in the absence of data-driven practices.

Digital transformation may reduce political influence by increasing transparency and information availability; however, it may also create new forms of power concentration if access to digital resources is uneven.

In this study, decision politics is operationally defined as the extent to which strategic decisions are influenced by internal power dynamics, personal dynamics, personal interests, and non-rational considerations within Jordanian private universities.

2.3 Relationship Between Digital Transformation and Strategic Decision-Making

The relationship between digital transformation and strategic decision-making has become increasingly significant as organizations operate in dynamic and information-intensive environments. Digital transformation reshapes how information is generated, integrated, and utilized, thereby influencing the quality and dynamics of strategic decisions. Rather than functioning solely as a technological input, digital transformation alters decision contexts by improving information availability, coordination, and transparency across organizational levels.

From a theoretical perspective, the resource-based view and dynamic capabilities theory explain how digital resources contribute to strategic decision-making effectiveness. Digital infrastructure, analytics systems, and integrated platforms represent strategic assets that enhance an organization’s ability to sense environmental changes, analyze alternatives, and respond effectively to uncertainty (Barney, 1991; Teece et al., 1997; Bharadwaj et al., 2013). When embedded within organizational processes, these digital capabilities support more rational, timely, and informed strategic decisions.

Empirical research indicates that digital transformation positively influences decision rationality by enabling access to accurate, real-time, and comprehensive information. Digital dashboards, data analytics, and integrated databases reduce reliance on intuition

and fragmented reporting, systematically supporting evaluation of strategic alternatives (Eisenhardt, 1989; Nath, 2025). Studies across service and knowledge-based organizations demonstrate that digitally enabled environments enhance evidence-based decision-making and strategic alignment (Chen & Jaw, 2023; Li et al., 2025). In higher education institutions, digital systems similarly support strategic decisions related to enrollment management, program development, and resource allocation (McCarthy et al., 2023; Alomari, 2024).

Digital transformation also affects participation in strategic decision-making. Digital platforms facilitate communication, information sharing, and collaboration among stakeholders, enabling broader involvement in strategic discussions. This is particularly relevant in universities, where shared governance structures emphasize participation and consultation. Prior studies suggest that digital tools enhance transparency and inclusiveness, leading to greater acceptance and legitimacy of strategic decisions (Hoy & Tarter, 1998; Elbanna et al., 2020). Evidence from Arab organizational contexts further indicates that higher levels of digital competence are associated with increased stakeholder participation in decision processes (Alsawat & Al-Harbi, 2022; Hasan et al., 2025).

In addition, digital transformation contributes to faster strategic decision-making by streamlining workflows, automating routine processes, and enabling real-time access to information. Decision speed is widely recognized as a source of strategic advantage in dynamic environments (Baum & Wally, 2003). Empirical studies show that organizations with advanced digital operations experience shorter decision cycles and improved strategic agility (Cyfert et al., 2025; Nath, 2025). In the higher education sector, digital transformation has been linked to faster responses to regulatory, financial, and market-related changes (Al Tahrawi & Al Shawabkeh, 2024).

Beyond rationality, participation, and speed, literature highlights the role of digital transformation in shaping political behavior within strategic decision-making. Political behavior arises when decisions are influenced by power dynamics or personal interests rather than objective criteria. Digital transformation, particularly when supported by a strong digital organizational culture, can reduce such behavior by increasing transparency, standardizing information, and promoting data-driven dialogue (Ebanna et al., 2020; Bakry, 2024). Organizations with digitally mature cultures tend to rely more on

shared data and less on informal influence, thereby enhancing objectivity in strategic decisions (Li et al., 2025).

Despite growing interest in this relationship, existing studies often focus on performance or innovation outcomes rather than examining strategic decision-making as a multidimensional process. Moreover, empirical evidence from private higher education institutions in developing countries remains limited. Accordingly, the current study addresses these gaps by examining how digital transformation, through its technological, human, operational, and cultural dimensions, influences strategic decision-making in Jordanian private universities.

2.4 Previous Models

Several theoretical and conceptual models have been developed to explain how digital technologies influence organizational strategy and decision-making processes. These models provide important foundations for understanding the strategic role of digital transformation and justify the development of the current research framework. This section reviews the most relevant models and clarifies their relevance to the present study.

2.4.1 Digital Business Strategy Model

The Digital Business Strategy Model emphasizes the integration of digital technologies into core business strategy rather than treating information technology as a supporting function. The model argues that digital capabilities influence strategic priorities, organizational structures, and decision-making logic by enabling better access to information and strategic alignment (Bharadwaj et al., 2013).

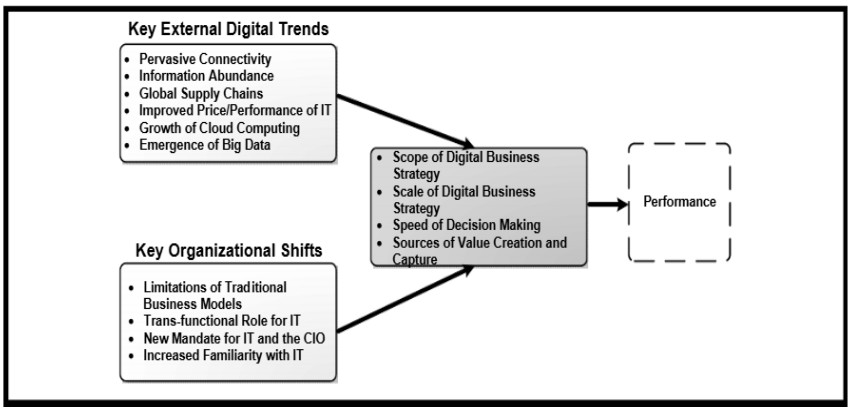


Figure (2.1): Drivers of The Four Key Themes of Digital Business Strategy

Source: Bharadwaj et al., 2013

This model is relevant to the current study as it highlights how digital infrastructure and analytics contribute to more rational and aligned strategic decisions in organizations, including higher education institutions.

2.4.2 Dynamic Capabilities Model

The Dynamic Capabilities Model explains how organizations adapt to changing environments through three core processes: sensing opportunities, seizing them through strategic decisions, and reconfiguring resources accordingly (Teece et al., 1997). Digital technologies enhance these processes by improving information flow and analytical capacity.

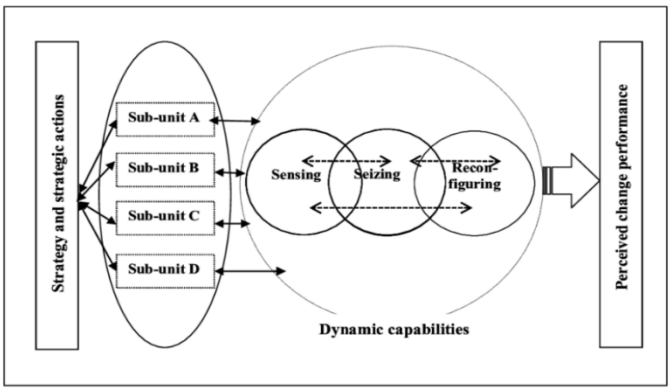


Figure (2.2): Dynamic Capabilities Model

Source: Teece et al., 1997

In the context of this study, the model supports the link between digital transformation and decision speed, as digitally enabled organizations are better equipped to respond rapidly to environmental changes**.**

2.4.3 Technology–Organization–Environment (TOE) Framework

The Technology–Organization–Environment (TOE) framework explains digital adoption and transformation as the result of interactions between technological readiness, organizational characteristics, and environmental pressures (Tornatzky & Fleischer, 1990).

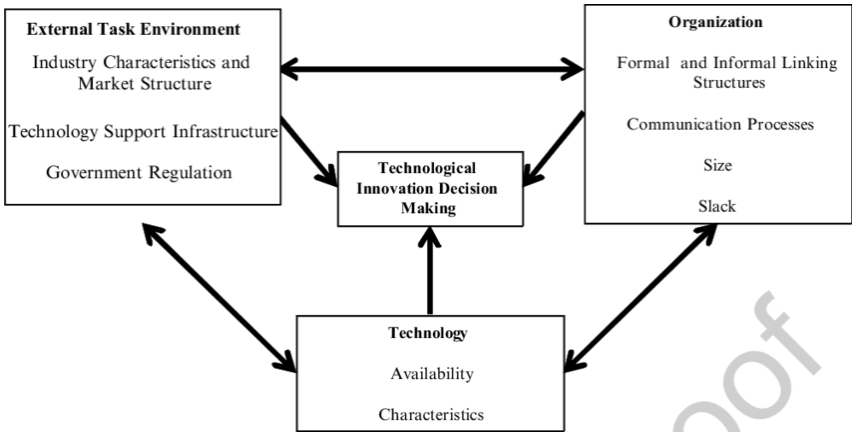


Figure (2.3): Technology–Organization–Environment (TOE) framework

Source: Tornatzky & Fleischer, 1990

This framework directly justifies the inclusion of digital competence and digital organizational culture alongside digital infrastructure in the current study, reinforcing the multidimensional nature of digital transformation and its impact on strategic decision-making.

2.4.4 Rational–Political Decision-Making Model

The Rational–Political Decision-Making Model recognizes that strategic decisions are influenced by both analytical reasoning and political behavior, including power dynamics and stakeholder interests (Eisenhardt & Zbaracki, 1992).

This model is directly aligned with the dependent variable of the study, particularly the dimensions of decision rationality, participation, and political behavior. Digital transformation may strengthen rational decision-making while reducing political influence through increased transparency and data availability.

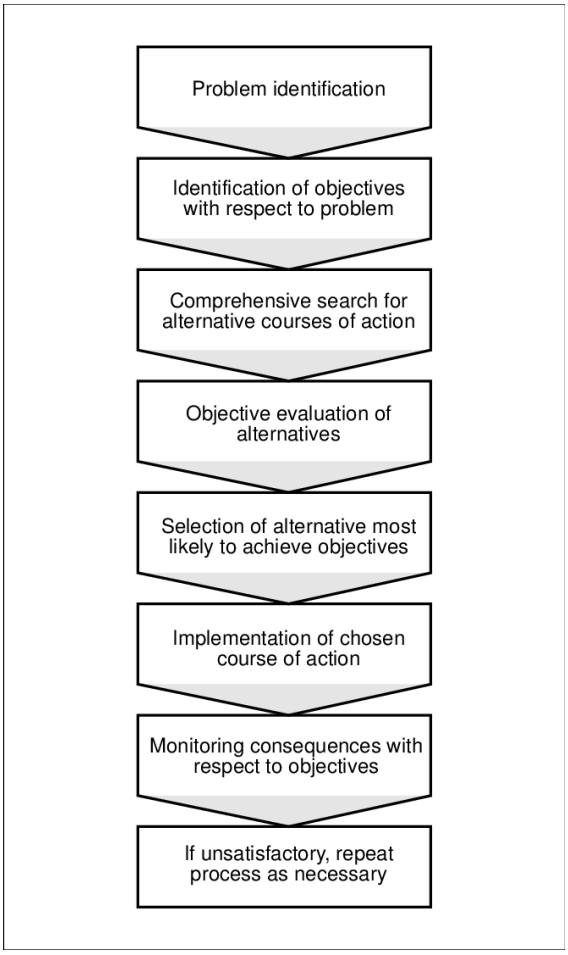


Figure (2.4): Technology–Organization–Environment (TOE) framework

Sourse: Tornatzky & Fleischer, 1990

2.5 Previous Studies

Several empirical studies have examined digital transformation and strategic decision-making across different organizational contexts. This section reviews the most relevant previous studies that inform the current research and highlight the empirical gap it seeks to address.

Chen et al. (2012), in their study titled **"Business Intelligence and Analytics: From Big Data to Big Impact"**, examined the role of analytics and digital data systems in managerial and strategic decision-making. The study reviewed empirical evidence across multiple industries and found that organizations using advanced digital analytics demonstrated higher levels of rationality and evidence-based decision-making. The results indicate that digital transformation strengthens decision rationality by improving data availability, accuracy, and analytical capability.

Bharadwaj et al. (2013), in their study titled **"Digital Business Strategy: Toward a Next Generation of Insights",** investigated how digital technologies are integrated into business strategy and how this integration influences organizational performance and strategic outcomes. The study adopted a conceptual research approach supported by empirical evidence from documented organizational cases and prior studies across multiple industries, including information technology, financial services, retail, media, and manufacturing. The authors emphasized strategic decision-making as a core activity through which digital capabilities create value. The findings indicate that organizations embedding digital technologies into strategic planning and decision processes achieve higher strategic coherence, improved decision quality, and greater organizational agility compared to organizations that treat information technology as a supporting function.

Mithas et al. (2013), in their study titled **"How a Firm's Competitive Environment and Digital Strategic Posture Influence Digital Business Strategy"**, employed a quantitative research design to examine the relationship between firms' digital strategic posture, competitive environment, and strategic outcomes. Using firm-level data from **over 300 organizations across multiple industries** in the United States, the authors applied multivariate regression analysis to test the impact of proactive versus reactive digital strategies. The findings reveal that companies with proactive digital strategies demonstrate more coherent digital business strategies and make more timely strategic decisions, particularly in dynamic competitive environments. The study provides empirical support for the assumption that digital transformation enhances decision speed and strategic alignment.

Kane et al. (2015), in a study titled **"Strategy, Not Technology, Drives Digital Transformation",** employed a quantitative survey-based research design to examine how leadership and strategic decision-making processes influence digital transformation outcomes. The study analyzed survey responses from **over 4,800 managers** and executives across **more than 25 industries worldwide**. The findings indicate that digitally mature organizations emphasize strategic decision-making, governance mechanisms, and leadership alignment rather than technology adoption alone. The results further highlight a reciprocal relationship between digital transformation and strategic decision-making, suggesting that effective strategic governance both drives and is strengthened by digital transformation initiatives.

El Sawy et al. (2016), in a study titled **"How Leaders Can Create Value from Digital Transformation"**, employed a **qualitative multiple-case study approach** to investigate the role of digital capabilities in strategic decision-making processes. Drawing on in-depth case analyzes from organizations operating in digitally intensive and competitive environments, the study examined how leaders embed digital platforms into strategic decision routines and governance structures. The findings indicate that organizations aligning digital capabilities with leadership practices and strategic decision processes achieve faster and more coherent strategic responses. The study concludes that digital transformation enhances decision speed and coordination when it is integrated into leadership and governance mechanisms rather than treated solely as a technological initiative.

Sebastian et al. (2017), in a study titled **"How Big Old Companies Navigate Digital Transformation",** employed an empirical qualitative case study methodology, examining multiple large incumbent firms operating across different industries. While the study does not report a statistical sample size, **the cases involve organizations employing thousands of employees and operating at scale**. The findings indicate that successful digital transformation is associated with the restructuring of decision rights, increased cross-functional participation, and greater reliance on shared digital data, reinforcing the link between digital transformation and participative strategic decision-making.

Elbanna et al. (2020), in their study titled **"Strategic Decision-Making: Process Perspectives"**, employed a mixed-methods research design to examine the behavioral dimensions of strategic decision-making, including participation, power dynamics, and political behavior. The quantitative component analyzed survey data **from several hundred managers across multiple organizations**, while qualitative insights were used to contextualize decision processes. The findings indicate that political behavior negatively affects decision quality and transparency, while participative and rational decision-making processes enhance strategic outcomes. The study provides a strong basis for examining how digital organizational culture may reduce political behavior and support more transparent strategic decisions.

Verhoef et al. (2021), in their study titled **"Digital Transformation: A Multidisciplinary Reflection and Research Agenda",** employed an integrative

multidisciplinary review to synthesize empirical and conceptual research on digital transformation across strategy, information systems, marketing, and organizational studies. Drawing on evidence from dozens of prior studies, the authors conceptualized digital transformation as a strategic and organizational phenomenon that reshapes structures, information flows, and leadership practices. The findings emphasize that decision-making quality mediates the relationship between digital transformation and organizational performance, highlighting strategic decision-making as a key mechanism through which digital transformation creates organizational value.

Raisch & Krakowski (2021), in their study titled **"Artificial Intelligence and Management: The Automation–Augmentation Paradox"**, Employing a conceptual research approach grounded in management theory and supported by evidence **from numerous prior empirical studies and organizational examples**. The authors examined how advanced digital technologies influence managerial decision-making, emphasizing that such technologies augment rather than replace strategic decisions. The findings indicate that AI-supported decision processes enhance analytical depth, improve decision rationality, and reduce cognitive bias and politically driven behavior. The study supports the role of digital transformation in strengthening rational and transparent strategic decision-making.

Afaishat et al. (2022), in their study **"Effect of Network Strategic Capabilities on Digital Transformation in Jordanian Universities",** employed a quantitative research design to examine how organizational networking capabilities influence digital transformation initiatives. **Using survey data collected from over 200 respondents across public and private Jordanian universities**, the authors applied statistical analysis to test the relationship between network strategic capabilities and digital transformation. The findings demonstrate that strategic networking capabilities significantly support digital transformation efforts, highlighting the importance of organizational capabilities in enabling successful digital transformation in higher education institutions.

Rego et al. (2022), in a systematic review titled **"Digital Transformation and Strategic Management"**, synthesized empirical studies published over the preceding decade to examine the relationship between digital transformation and strategic management outcomes. Drawing on evidence from several dozen peer-reviewed studies,

the review concluded that digital transformation consistently enhances strategic decision-making, organizational agility, and performance. The study provides comprehensive theoretical and empirical support for examining digital transformation within a strategic decision-making framework.

Al-Muslimani (2022), in a study titled **"The Level of Digital Transformation in Jordanian Universities and Its Relationship to Competitive Advantage"**, employed a quantitative survey-based research design to examine digital transformation adoption in Jordanian universities and its strategic implications. **Using data collected from more than 300 respondents across public and private universities in Jordan**, the study found a statistically significant positive relationship between digital transformation and competitive advantage. The findings highlight digital transformation as a key driver of strategic value creation in the higher education sector.

McCarthy et al. (2023), in their study titled **"Digital Transformation in Higher Education: Implications for Governance and Leadership"**, employed a mixed-methods research design to examine the impact of digital transformation on governance structures and leadership decision-making in universities. **Drawing on survey data from several hundred academic leaders and qualitative insights from senior decision-makers**, the study found that universities with higher levels of digital integration exhibit more evidence-based, participative, and transparent strategic decision-making. The findings highlight the importance of digital transformation in improving governance and decision processes in higher education institutions.

Chen & Jaw (2023), in their study titled **"Effect of Digital Transformation on Organisational Performance"**, Employed a quantitative research design grounded in dynamic capabilities theory to examine the impact of digital transformation on organizational performance. **Using survey data from several hundred organizations**, the authors found that digital transformation positively influences performance by enhancing strategic responsiveness and decision quality. The study provides strong empirical support for digital transformation as a strategic enabler and highlights decision quality as a key mechanism through which digital transformation creates value.

McCarthy et al. (2023), in their study **"Digital Transformation in Education: Critical Components for Leaders of System Change",** explored leadership and

governance factors required for successful digital transformation in educational institutions. The study identified strategic leadership, digital governance, and organizational alignment as critical components for effective digital transformation. The findings reinforce the importance of leadership-driven digital initiatives in improving strategic decision-making.

Abdelaziz & Naama (2023), in their study titled **"The Impact of Digital Transformation Dimensions on Employees' Job Performance"**, employed a quantitative research design to examine the impact of digital transformation on employee performance **in four- and five-star hotels in the Red Sea Governorate**. Using survey data collected from several hundred hotel employees, the study found a statistically significant positive impact of digital transformation dimensions—technological infrastructure, digital skills, and organizational practices—on job performance. The findings support the role of digital transformation in enhancing organizational effectiveness and providing a foundation for improved strategic decision-making processes across sectors.

Al-Hamdani et al.,(2023), in their study titled **"The Role of Digital Transformation in the Effectiveness of Strategic Decisions",** employed a quantitative research design to examine the impact of digital transformation on strategic decision effectiveness in Iraqi private universities. **Using survey data collected from several hundred administrative leaders**, the study found a statistically significant positive effect of digital transformation on the rationality, timeliness, and overall effectiveness of strategic decisions. The findings highlight the importance of digital systems in improving strategic decision-making in higher education institutions.

Alomari (2024), in a study examining **digital transformation in Jordanian higher education institutions,** employed a quantitative survey-based research design to examine the impact of digital infrastructure and digital competence on administrative and strategic performance in Jordanian higher education institutions. Using data collected from several hundred academic and administrative leaders, the study found that digital capabilities significantly improve information availability and support more rational and timely decision-making. However, the study focused primarily on operational performance outcomes and did not examine strategic decision-making as a multidimensional construct, highlighting a gap addressed by the current research.

Espina-Romero et al. (2024), in a study focusing on "**Digital Maturity and Organizational Performance"**, examined how different stages of digital transformation influence managerial practices. The study employed a quantitative approach and found that organizations at advanced stages of digital maturity demonstrated higher levels of analytical decision-making, faster response times, and lower reliance on informal decision practices. The study reinforces the relevance of digital maturity for understanding variations in strategic decision-making quality.

Cyfert et al. (2025), in their study titled **"Digital Transformation as a Multidimensional Organizational Process"**, investigated the interaction between digital infrastructure, human capabilities, and organizational culture. Using empirical data from service-based organizations, the study found that digital transformation outcomes depend on the combined effect of technological, human, and cultural dimensions. The findings support treating digital transformation as an integrated construct and suggest that its strategic impact is mediated through organizational processes such as decision-making.

Cyfert et al. (2025), in their study **"Are We Ready for Digital Transformation?",** investigated the role of organizational culture, leadership, and digital competence in building digital advantage. Using empirical analysis, the results revealed that organizational culture and leadership readiness significantly influence digital transformation success. The study supports the inclusion of digital organizational culture and digital competence as key dimensions in digital transformation research.

2.6 What Differentiates this Study from Previous Studies.

2.6.1 Focus of the Study:

While most previous studies examined digital transformation in relation to general organizational outcomes, the current study explicitly focuses on strategic decision-making as the main dependent variable and examines it as a multidimensional construct comprising rationality, participation, speed, and political behavior.

2.6.2 Integrated Digital Transformation Model:

Unlike earlier research that addressed digital transformation from a fragmented perspective, this study adopts an integrated approach by examining digital infrastructure, digital competence, digital operations, and digital organizational culture simultaneously.

2.6.3 Context and Sector:

Most previous empirical studies were conducted in developed economies or Gulf Cooperation Council countries and focused on private-sector organizations or public universities. The current study is conducted in Jordan and specifically targets private universities, a context that has received limited attention in prior research.

2.6.4 Methodological Contribution:

Previous studies often relied on qualitative methods or secondary data. The current study employs a quantitative approach using a structured questionnaire and regression analysis to empirically examine how digital transformation influences strategic decision-making based on leaders' perceptions.

2.6.5 Theoretical Contribution:

This study makes a significant theoretical contribution by advancing the literature on digital transformation and strategic decision-making through the development and empirical testing of an integrated analytical framework within the context of private universities in Jordan. While prior research has largely examined digital transformation and strategic decision-making as separate constructs or has treated decision-making as an implicit or secondary outcome of digital initiatives, this study explicitly positions strategic decision-making as the primary theoretical mechanism through which digital transformation creates strategic value.

First, the study extends digital transformation theory by conceptualizing it as a multidimensional organizational encompassing digital infrastructure, digital competence, digital operations, and digital organizational culture. Unlike earlier studies that emphasized technological adoption or infrastructure readiness in isolation, this research demonstrates that digital transformation operates as an integrated system of technological, human, operational, and cultural capabilities. By empirically validating this integrated constructs in private universities, the study strengthens theoretical

arguments grounded in the resource-based view and dynamic capabilities theory, showing how digital resources must be jointly configured to influence strategic outcomes.

Second, the study contributes to strategic decision-making theory by conceptualizing and empirically examining strategic decision-making as a multidimensional construct, comprising rationality, participation, decision speed, and political behavior. This moves beyond dominant unidimensional or performance-oriented perspectives and provides a more nuanced understanding of how strategic decisions are actually formed and enacted within complex institutional environments. The findings demonstrate that digital transformation enhances not only analytical rationality and decision speed, but also participative decision processes, while simultaneously reducing political behavior when supported by a strong digital organizational culture. This multidimensional treatment enriches behavioral and process-oriented theories of strategic decision-making by integrating digital context as a core explanatory factor.

Third, by empirically linking the four dimensions of digital transformation to the four dimensions of strategic decision-making, the study offers a theoretically grounded explanation of how digital transformation reshapes governance and leadership practices, rather than merely improving operational efficiency. The results provide empirical support for the argument that digital transformation functions as a strategic enabler of decision quality, transparency, and agility, thereby extending existing models that focus primarily on performance or innovation outcomes.

Finally, this study contributes to theory by extending the applicability of dominant digital transformation and decision-making frameworks to a developing-country context, specifically private universities in Jordan. Most existing theories have been developed and empirically validated in corporate settings and developed economies. By demonstrating that digital transformation significantly influences strategic decision-making under conditions of resource constraints, competitive pressures, and hybrid governance structures, this study introduces context-sensitive theoretical insights that refine and enrich existing models. It highlights how institutional characteristics and cultural dynamics shape the relationship between digital transformation and strategic decision-making, thereby broadening the theoretical boundaries of both research streams.

Chapter Three

Study Methodology (Methods and Procedures)

3.1 Introduction

This chapter outlines the study's methodological framework, including the research design, target population, and sampling procedure, data collection methods, and data analysis techniques. It also describes the research tool and presents the procedures used to assess its validity and reliability, in addition to providing a detailed profile of the respondents' demographic characteristics.

3.2 Study Design

This study adopts a quantitative, descriptive, and cause-effect research design to examine the impact of digital transformation on strategic decision-making in private universities in Jordan. A structured questionnaire, developed based on relevant literature and reviewed by experts, was used to collect data from academic and administrative leaders. The collected data were coded and analyzed using SPSS after testing for normality, validity, reliability, and multicollinearity. Descriptive statistics, correlation analysis, and regression analysis were then applied to test the study hypotheses and assess the relationships between the study variables.

3.3 Population and Sample of the Study

The study population comprises all 18 private universities operating in Jordan during 2025.

Table (3.1): Private Universities Operating in Jordan

University of Petra	Applied Science Private University	Philadelphia University
Al-Zaytoonah University of Jordan	Isra University	Princess Sumaya University for Technology
Middle East University	Amman Arab University	Jerash University
Ajloun National University	Aqaba University of Technology	Zarqa University
American University of Madaba	Irbed National University	Arab Open University – Jordan
World Islamic Sciences and Education University	Al-Ahliyya Amman University	Ibn Sina University for Medical Sciences

Due to practical constraints related to access and participation, a convenience sampling technique was employed. The questionnaire was distributed electronically, and

valid responses were obtained from 14 private universities. As noted by Sekaran and Bougie (2019), when the population is finite and relatively small, the appropriateness of the sample is determined by its coverage of the population rather than adherence to a fixed sample size such as 384, which is typically recommended for large or unknown populations. Accordingly, the achieved response rate represents a substantial proportion of the population and is considered adequate for the purposes of this study.

3.4 Data Sources

To achieve the objectives of this study, data were collected from both secondary and primary sources.

3.4.1 Secondary data

Were obtained from a wide range of academic and professional sources, including peer-reviewed journals, books, previous studies, theses, official reports, and reputable online databases related to digital transformation, strategic decision-making, and higher education. These sources supported the development of the theoretical framework, study model, and research instrument.

3.4.2 Primary data

Were collected directly from academic and administrative leaders working in private universities in Jordan through a structured questionnaire specifically designed for this study. The questionnaire was developed based on relevant literature and adapted to the higher education context to capture respondents' perceptions of digital transformation and strategic decision-making practices.

3.4.3 The Study Questionnaire

The questionnaire was developed based on an extensive review of relevant literature and validated measurement scales. It consists of two main sections:

The first section about **demographic information** includes gender, age, years of experience, academic qualification, management level, and university affiliation. The second section includes both **independent and dependent variables** as listed below:

Digital Transformation (Independent Variable): Measured through four dimensions, comprising 16 items:

Table (3.2): Digital Transformation (Independent Variable) Sources

Construct	Sub-dimensions	Number of items of each dimension	Source
Digital Transformation (Independent Variable)	**Digital Infrastructure**	(Items 1–4)	Adapted from the Bharadwaj et al. scale (2013), with updates based on Azkalog et al. (2024) to reflect contemporary contexts.
	Digital Competence	(Items 5–8)	Based on the Digital Competence (DigComp) framework (van Laar et al., 2017), with contextual items optimized for organizational settings following the work of Espina-Romero et al. (2024).
	Digital Operations	(Items 9–12)	Derived from the digital capabilities scale by Bharadwaj et al. (2013), refined to focus on operational processes as conceptualized by Alomari (2024).
	Digital Organizational Culture	(Items 13–16)	Developed from the scale for digital-supportive culture by Alomari (2024), augmented with dimensions from Hasan et al. (2025).

Strategic Decision-Making (Dependent Variable): Measured through four dimensions, comprising 16 items:

Table (3.3): Strategic Decision-Making (Dependent Variable) Sources

Construct	Sub-dimensions	Number of items of each dimension	Source
Strategic Decision-Making (Dependent Variable)	**Decision Rationality**	(Items 17–20)	Utilizes the rationality in decision-making scale by Hoy & Tarter (1995), as employed and validated in the study by Abdullah (2018).
	Decision Participation	(Items 21–24)	Adopted from the employee participation scale by Jerar & Abu-Baha (2014), following its application in Abdullah (2018).
	Decision Speed	(Items 25–28)	Based on the decision speed constructs of **Eisenhardt (1989)** and **Baum & Wally (2003)**, adapted for the organizational context as presented in **Abdullah (2018)**.
	Decision Politics	(Items 29–32)	Uses the scale for political dynamics in decision-making by **Tarter & Hoy (1998)**, implemented in the final form used by **Abdullah (2018)**.
Total items		**32**	

All items were measured using a five-point Likert scale, ranging from (1) Strongly Disagree to (5) Strongly Agree.

3.4.4 Data Collection and Analysis

The researcher investigated the targeted Jordanian private universities to facilitate access to eligible participants. Due to practical constraints and the difficulty of reaching a large number of academic and administrative leaders across different universities through face-to-face methods, a convenience sampling technique was employed, and the questionnaire was distributed online. The respondents consisted of academic and administrative leaders holding managerial and leadership positions who are directly involved in strategic decision-making and digital transformation initiatives within their universities.

As a result of the data collection process, **365 questionnaires were received**. Following data screening and cleaning procedures, **313 questionnaires were deemed valid** and accepted for statistical analysis, while **52 questionnaires were excluded** due to incompleteness or failure to meet the study's inclusion criteria. The valid data were then coded and entered into the Statistical Package for the Social Sciences **(SPSS)** for processing. Statistical analysis was conducted to examine the influence of digital transformation on strategic decision-making. To achieve the study objectives and test the proposed hypotheses, a set of appropriate descriptive and inferential statistical methods was employed.

3.4.5 Validity Test

The validity of the research instrument was established using content validity, face validity, and construct validity. Content validity was ensured through an extensive review of relevant literature, including peer-reviewed journal articles, theses, dissertations, and reputable online sources. Face validity was assessed by the Referees Panel Committee**,** who reviewed the questionnaire to evaluate item clarity, relevance, and suitability for the study context. Based on their feedback, minor modifications were made, and the final version of the questionnaire was approved (see Appendix 1). At last, Construct validity was established through Principal Component Factor Analysis, supported by the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy.

3.4.6 Construct Validity (Factor Analysis)

Construct validity of the study was examined and confirmed using Principal Component Factor Analysis supported with Kaiser–Meyer–Olkin (KMO). Principal Component Factor Analysis was used to determine the extent to which the data adequately explain and conform to the underlying factor structure. Hair et al. (2014) suggest that factor loadings exceeding 0.40 are acceptable, with higher values indicating stronger associations between items and their constructs. The Kaiser–Meyer–Olkin (KMO) measure was used to assess sampling acceptable, with values above 0.50 considered acceptable and values between 0.60 and 1.00 indicating high adequacy. Bartlett's Test of Sphericity was applied to examine data suitability, where a significant result (Sig. < 0.05) confirms the appropriateness of factor analysis. The percentage of explained variance reflects the explanatory power of the extracted factors (Cerny & Kaiser, 1977).

3.4.7 Digital Infrastructure

Table (3.4) shows that the factor loadings of the Digital Infrastructure items ranged between 0.468 and 0.675, which indicates acceptable item representation and supports construct validity. The Kaiser–Meyer–Olkin (KMO) value reached 0.558, reflecting adequate sampling acceptable. Additionally, the Chi-square value was 17.267, indicating a good model fit. The extracted factor explained 32.084% of the total variance, meaning that the model accounts for 32.08% of the variation in the Digital Infrastructure construct. Finally, Bartlett's Test of Sphericity was statistically significant (Sig. = 0.008 < 0.05), confirming that the factor analysis results are valid and appropriate for this dimension.

Table (3.4): Principal Component Analysis of digital infrastructure

Item	F1	KMO	Chi-Square	DF	Sig.	Variance%
DI1	.489	.558	17.267	6	.008	32.084
DI2	.468					
DI3	.675					
DI4	.608					

Principal Component Analysis

3.4.8 Digital competence

Table (3.5) shows that the factor loadings of the Digital Competence items ranged between 0.421 and 0.649, indicating acceptable item loadings and supporting construct validity. The Kaiser–Meyer–Olkin (KMO) value was 0.552, which reflects adequate sampling acceptable. In addition, the Chi-square value reached 21.053, indicating an

acceptable model fit. The extracted factor explained 57.983% of the total variance, meaning that the model accounts for 57.98% of the variation in the Digital Competence construct. Finally, Bartlett's Test of Sphericity was statistically significant (Sig. = 0.002 < 0.05), confirming that the factor analysis is appropriate and useful for this dimension.

Table (3.5): Principal Component Analysis of Digital Competence

Item	F1	KMO	Chi-Square	DF	Sig.	Variance%
DC1	.567	.552	21.053	6	.002	57.983
DC2	.421					
DC3	.649					
DC4	.618					

Principal Component Analysis

3.4.9 Digital operations

Table (3.6) shows that the factor loadings of the Digital Operations items ranged between 0.465 and 0.679, indicating acceptable factor loadings and supporting the construct validity of this dimension. The Kaiser–Meyer–Olkin (KMO) value was 0.579, reflecting adequate sampling acceptable. In addition, the Chi-square value reached 32.537, indicating an acceptable model fit. The extracted factor explained 34.798% of the total variance, meaning that the model accounts for 34.80% of the variation in the Digital Operations construct. Finally, Bartlett's Test of Sphericity was statistically significant (Sig. = 0.000 < 0.05), confirming that the factor analysis results are valid and appropriate for this dimension.

Table (3.6): Principal Component Analysis Digital Operation

Item	F1	KMO	Chi-Square	DF	Sig.	Variance%
DO1	.622	.579	32.537	6	.000	34.798
DO2	.679					
DO3	.572					
DO4	.465					

Principal Component Analysis

3.4.10 Digital organizational culture

Table (3.7) shows that the factor loadings of the Digital Organizational Culture ranged between 0.451 and 0.730, indicating acceptable item loadings and supporting construct validity. The Kaiser–Meyer–Olkin (KMO) value was 0.566, which reflects adequate sampling acceptable. Additionally, the Chi-square value reached 31.592, indicating a good model fit. The extracted factor explained 34.509% of the total variance,

meaning that the model accounts for 34.51% of the variation in the Digital Organizational Culture construct. Finally, Bartlett's Test of Sphericity was statistically significant (Sig. = 0.000 < 0.05), confirming that the factor analysis is appropriate and useful for this dimension.

Table (3.7): Principal Component Analysis of Digital Organizational Culture

Item	F1	KMO	Chi-Square	DF	Sig.	Variance%
DOC1	.730	.566	31.592	6	.000	34.509
DOC2	.628					
DOC3	.451					
DOC4	.499					

Principal Component Analysis

3.4.11 Decision Rationality

Table (3.8) shows that the factor loadings of the Decision Rationality items ranged between 0.473 and 0.681, indicating acceptable factor loadings and supporting the construct validity of this dimension. The Kaiser–Meyer–Olkin (KMO) value was 0.524, reflecting adequate sampling acceptable. Additionally, the Chi-square value reached 51.643, indicating a good model fit. The extracted factor explained 61.818% of the total variance, meaning that the model accounts for 61.82% of the variation in the Decision Rationality construct. Finally, Bartlett's Test of Sphericity was statistically significant (Sig. = 0.000 < 0.05), confirming that the factor analysis is valid and appropriate for this dimension.

Table (3.8): Principal Component Analysis Decision Rationality

Item	F1	KMO	Chi-Square	DF	Sig.	Variance%
RA1	.608	.524	51.643	6	.000	61.818
RA2	.681					
RA3	.627					
RA4	.473					

Principal Component Analysis

3.4.12 Decision participation

Table (3.9) shows that the factor loadings of the Decision Participation items ranged between 0.520 and 0.635, indicating acceptable factor loadings and supporting the construct validity of this dimension. The Kaiser–Meyer–Olkin (KMO) value was 0.568, which reflects adequate sampling acceptable. In addition, the Chi-square value reached

12.494, indicating an acceptable model fit. The extracted factor explained 31.301% of the total variance, meaning that the model accounts for 31.30% of the variation in the Decision Participation construct. Although Bartlett's Test of Sphericity was marginally above the conventional significance level (Sig. = 0.052), the result remains acceptable for exploratory factor analysis, particularly in behavioral and organizational research contexts.

Table (3.9): Principal Component Analysis Decision Participation

Item	F1	KMO	Chi-Square	DF	Sig.	Variance%
PA1	.520	.568	12.494	6	.052	31.301
PA2	.541					
PA3	.635					
PA4	.534					

Principal Component Analysis

3.4.13 Decision speed

Table (3.10) shows that the factor loadings of the Decision Speed items ranged between 0.390 and 0.691. Most items demonstrated acceptable loadings exceeding the minimum threshold of 0.40, while one item showed a marginal loading. Overall, the results support the construct validity of this dimension. The Kaiser–Meyer–Olkin (KMO) value was 0.555, indicating adequate sampling acceptable. In addition, the Chi-square value reached 28.076, reflecting an acceptable model fit. The extracted factor explained 59.106% of the total variance, meaning that the model accounts for 59.11% of the variation in the Decision Speed construct. Finally, Bartlett's Test of Sphericity was statistically significant (Sig. = 0.000 < 0.05), confirming that the factor analysis is appropriate for this dimension.

Table (3.10): Principal Component Analysis Decision Speed

Item	F1	KMO	Chi-Square	DF	Sig.	Variance%
SP1	.691	.555	28.076	6	.000	59.106
SP2	.607					
SP3	.591					
SP4	.390					

Principal Component Analysis

Decision politics

Table (3.11) shows that the factor loadings of the Decision Politics items ranged between 0.351 and 0.721. While most items demonstrated acceptable loadings above the

minimum threshold of 0.40, one item showed a relatively low loading. Overall, the results provide acceptable support for the construct validity of this dimension. The Kaiser–Meyer–Olkin (KMO) value was 0.566, indicating adequate sampling acceptable. In addition, the Chi-square value reached 26.222, reflecting an acceptable model fit. The extracted factor explained 33.658% of the total variance, meaning that the model accounts for 33.66% of the variation in the Decision Politics construct. Finally, Bartlett's Test of Sphericity was statistically significant (Sig. = 0.000 < 0.05), confirming the suitability of the data for factor analysis, and support validity of digital transformation.

Table (3.11): Principal Component Analysis Decision Politics

Item	F1	KMO	Chi-Square	DF	Sig.	Variance%
PO1	.351	.566	26.222	6	.000	33.658
PO2	.721					
PO3	.599					
PO4	.588					

Principal Component Analysis

3.4.14 Digital transformation

Table (3.12) shows that the four sub-variables of Digital Transformation—Digital Infrastructure, Digital Competence, Digital Operations, and Digital Organizational Culture—loaded strongly on a single factor, with factor loadings ranging between 0.593 and 0.724. These values exceed the acceptable threshold, indicating that all sub-variables contribute meaningfully to the overall construct. The Kaiser–Meyer–Olkin (KMO) value reached 0.690, reflecting good sampling acceptable. In addition, the Chi-square value was 111.158, indicating a good model fit. The extracted factor explained 45.042% of the total variance, meaning that the model accounts for 45.04% of the variation in the Digital Transformation construct. Finally, Bartlett's Test of Sphericity was statistically significant (Sig. = 0.000 < 0.05), confirming the suitability of the data for higher-order factor analysis and supporting the construct validity of Digital Transformation as a unified variable.

Table (3.12): Principal Component Analyses Digital Transformation

Sub-Variables	F1	KMO	Chi-Square	DF	Sig.	Variance%
Digital Infrastructure	.722	.690	111.158	6	.000	45.042
Digital Competence	.635					
Digital Operations	.593					
Digital Organizational Culture	.724					

Principal Component Analysis

3.4.15 Strategic decision-making

Table (3.13) shows that the sub-variables of Strategic Decision-Making—Rationality, Participation, Speed, and Politics—loaded on a single factor, with factor loadings ranging between 0.348 and 0.740. Most sub-variables demonstrated strong loadings above the acceptable threshold of 0.40, while the Politics dimension showed a relatively lower loading. Overall, the results support the multidimensional structure of the construction. The Kaiser–Meyer–Olkin (KMO) value reached 0.647, indicating adequate sampling acceptable. Additionally, the Chi-square value was 92.732, indicating an acceptable model fit. The extracted factor explained 42.199% of the total variance, meaning that the model accounts for 42.20% of the variation in Strategic Decision-Making. Finally, Bartlett's Test of Sphericity was statistically significant (Sig. = 0.000 < 0.05), confirming the suitability of the data for higher-order factor analysis and supporting the construct validity of Strategic Decision-Making as an integrated variable.

Table (3.13): Principal Component Analysis for Strategic Decision-Making

Sub-Variables	F1	KMO	Chi-Square	DF	Sig.	Variance%
Rationality	.711	.647	92.732	6	.000	42.199
Participation	.740					
Speed	.716					
Politics	.348					

Principal Component Analysis

3.4.16 Reliability Test

Reliability was assessed using Cronbach's Alpha to examine the internal consistency of the study scales. All sub-variables were measured using four items. The results show that Cronbach's Alpha values ranged from 0.266 to 0.366 for individual dimensions, while the overall constructs recorded alpha values of 0.588 for Digital Transformation and 0.488 for Strategic Decision-Making. Although some values are relatively low, such

results are acceptable in exploratory studies, particularly for complex organizational constructs measured with a limited number of items. Combined with the satisfactory construct validity results, the measurement instrument demonstrates an acceptable level of reliability for hypothesis testing.

Table (3.14): Reliability Test for All Variables

Sub-Variables	N of Items	Cronbach's Alpha
Digital Infrastructure	4	.282
Digital Competence	4	.296
Digital Operations	4	.366
Digital Organizational Culture	4	.337
Digital Transformation	4	.588
Rationality	4	.266
Participation	4	.266
Speed	4	.335
Politics	4	.328
Strategic Decision-Making	4	.488

3.4.17 Demographic Analysis

The demographic analysis describes the distribution of respondents according to key characteristics, including university affiliation, gender, age, years of experience, academic qualification, and management level. This analysis provides an overview of the sample composition and ensures that respondents represent diverse managerial and academic backgrounds. Such diversity enhances the credibility and generalizability of the study findings.

Gender: The gender distribution of the respondents shows a nearly balanced representation. Male respondents accounted for 49.8% (156) of the sample, while female respondents represented 50.2% (157). This balanced distribution enhances the representativeness of the study sample and reduces potential gender-related bias.

Table (3.15): Respondent Gender

Dimension		Frequency	Percent
Gender	Male	156	49.8
	Female	157	50.2
	Total	**313**	**100.0**

Age: **Table (3.16)** presents the age distribution of the respondents. The results indicate that most participants were aged above 40 years, accounting for 46.3% (145) of the sample, followed by those aged 36–40 years at 29.1% (91). Respondents aged 30–35

years represented 13.4% (42), while those under 30 years constituted 11.2% (35). This distribution suggests that most respondents possess a mature level of professional experience, which is appropriate for the study context.

Table (3.16): Respondent Age

Dimension		Frequency	Percent
Age	Under 30 years	35	11.2
	30 - 35 years	42	13.4
	36- 40 years	91	29.1
	Above 40 years	145	46.3
	Total	**313**	**100.0**

Experience: Table (3.17) illustrates the distribution of respondents according to years of experience. The findings show that 27.2% (85) of the respondents had 5–10 years of experience, while an equal proportion 27.2% (85) had more than 15 years of experience. Respondents with less than 5 years of experience accounted for 23.6% (74), and those with 11–15 years represented 22.0% (69). This indicates that the sample includes respondents with varied and substantial professional experience.

Table (3.17): Respondent Experience

Dimension		Frequency	Percent
Experience	Under 5 years	74	23.6
	5 - 10 years	85	27.2
	11 - 15 years	69	22.0
	More than 15 years	85	27.2
	Total	**313**	**100.0**

Qualifications: Table (3.18) presents the academic qualifications of the respondents. The results show that the majority of participants had a Ph.D. degree, representing 55.3% (173) of the sample. Respondents with a bachelor's degree accounted for 32.6% (102), while those holding a master's degree represented 12.1% (38). This distribution indicates a highly educated sample, appropriate for examining strategic and managerial decision-making in higher education institutions.

Table (3.18): Respondent Qualifications

Dimension		Frequency	Percent
Qualification	Bachelor's Degree	102	32.6
	Master's Degree	38	12.1
	Ph.D.	173	55.3
	Total	**313**	**100.0**

Management level: Table (3.19) shows the distribution of respondents according to managerial level. The results indicate that 38.3% (120) of the respondents occupied

middle management positions, followed by senior management at 35.5% (111). Top management respondents accounted for 26.2% (82) of the sample. This distribution reflects a strong representation of decision-makers across different managerial levels, supporting the relevance of the data for strategic analysis.

Table (3.19): Respondent Managerial Level

Dimension		Frequency	Percent
Management Level	Middle Management	120	38.3
	Senior Management	111	35.5
	Top Management	82	26.2
	Total	**313**	**100.0**

University: Table (3.20) presents the distribution of respondents by university affiliation. The largest proportion of responses came from Middle East University (18.8%, n = 59), followed by Arab Open University – Jordan (8.3%, n = 26). Several universities—Al-Ahliyya Amman University, Applied Science Private University, Philadelphia University, Jadara University, and Zarqa University—each contributed 6.7% (n = 21). Comparable representation was observed from Amman Arab University, Ajloun National University, Isra University, Petra University, and Princess Sumaya University for Technology (each 6.4%, n = 20), as well as American University of Madaba (6.1%, n = 19). Ibn Sina University for Medical Sciences accounted for 1.3% (n = 4). Overall, the distribution reflects broad participation across Jordanian private universities, supporting the representativeness of the sample.

Table (3.20) Respondent Universities

Dimension		Frequency	Percent
University	Arab Open University – Jordan	26	8.3
	Ibn Sina University for Medical Sciences	4	1.3
	Middle East University	59	18.8
	Al-Ahliyya Amman University	21	6.7
	Applied Science Private University	21	6.7
	Philadelphia University	21	6.7
	Jadara University	21	6.7
	Zarqa University	21	6.7
	Amman Arab University	20	6.4
	Ajloun National University	20	6.4
	American University of Madaba	19	6.1
	Isra University	20	6.4
	Petra University	20	6.4
	Princess Sumaya University for Technology	20	6.4
	Total	**313**	**100.0**

Chapter Four
Results of the Study

4.1 Introduction

This chapter presents the statistical analysis of the data collected to examine the study hypotheses and research questions. Using appropriate descriptive and inferential statistical techniques through SPSS, the chapter analyzes respondents' perceptions of digital transformation and strategic decision-making in private universities in Jordan. The chapter begins with descriptive statistics, followed by correlation analysis and hypothesis testing to determine the nature and strength of the relationships between the study variables.

4.2 Descriptive Statistical Analysis

Descriptive statistical techniques were employed to examine respondents' perceptions and the extent of implementation of the study variables, dimensions, and items. The analysis relied on the mean, standard deviation, t-value, and ranking to provide a clear assessment of the level of digital transformation and strategic decision-making practices in private universities in Jordan.

To interpret the results, the level of implementation was classified into three categories based on the five-point Likert scale. The interval length was calculated using the formula $(5 - 1) \div 3 = 1.33$.

Accordingly, mean values ranging from 3.67 to 5.00 indicate a high level of implementation, values between 2.34 and 3.66 reflect a moderate level, and values between 1.00 and 2.33 represent a low level of implementation.

4.2.1 Descriptive Statistics of Digital Transformation (Overall)

Table (4.1) summarizes the descriptive statistics for the Digital Transformation construct. The means of dimensions between 3.95 to 4.12 and standard deviation between .463 to .526, which mean the respondents agree on high importance of these dimensions. The overall mean score was 4.04, indicating a high level of digital transformation in private universities, alos, the t-value support this result, where it is value more than T-

tabulated (56.290 > 1.960) at significant level 0.05. Digital Infrastructure ranked first, followed by Digital Organizational Culture, Digital Competence, and Digital Operations.

Table (4.1): Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Digital Transformation

Item	Mean	Std. Deviation	t	Sig. (2-tailed)	Rank	Agree
Digital Infrastructure	4.116	.479	41.232	.000	1	High
Digital Competence	4.024	.462	39.198	.000	3	High
Digital Operations	3.952	.525	32.065	.000	4	High
Digital Organizational Culture	4.063	.484	38.799	.000	2	High
Digital Transformation	**4.039**	**.326**	**56.290**	**.000**	**---**	**High**

T-Tabulated = 1.960

4.2.2 Descriptive statistics of digital infrastructure

Table (4.2) presents the descriptive statistics for the Digital Infrastructure construct. The means of dimensions between 4.01 to 4.19 and standard deviation between .825 to .967, which mean the respondents agree on high importance of these dimensions. The overall mean score was 4.04, indicating a high level of digital infrastructure in private universities, alos, the t-value support this result, where it is value more than T-tabulated (41.232 > 1.960) at significant level 0.05.

Table (4.2): Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Digital Infrastructure

Item	Mean	Std. Deviation	T	Sig. (2-tailed).	Rank	Agree.
The university invests in cloud computing services to support its operations.	4.11	.773	25.382	.000	3	High
The university provides a robust internet network across all campuses.	4.01	.967	18.523	.000	4	High
The university uses integrated software systems.	4.15	.826	24.717	.000	2	High
The university allocates a sufficient annual budget for developing digital infrastructure.	4.19	.825	25.547	.000	1	High
Digital Infrastructure	**4.11**	**.479**	**41.232**	**.000**	**--**	**High**

T-Tabulated = 1.960

4.2.3 Descriptive Statistics of Digital Competence:

Table (4.3) shows the descriptive statistics for the Digital Infrastructure construct. The means of dimensions between 3.91 to 4.13 and standard deviation between .737 to .896, which mean the respondents agree on high importance of these dimensions. The

overall mean score was 4.04, indicating a high level of digital competence in private universities. Also, the t-value supports this result, where it is a value more than T-tabulated (39.198 > 1.960) at a significant level 0.05. confirming the perceived strength of digital skills and capabilities among university staff.

Table (4.3): Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Digital Competence

Item	Mean	Std. Deviation	t	Sig. (2-tailed).	Rank	Agree.
The university recruits digitally proficient employees.	4.13	.737	27.137	.000	1	High
The university provides training programs on digital systems.	3.96	.896	18.926	.000	3	High
The university provides user-friendly digital systems.	3.91	.773	20.773	.000	4	High
The university encourages employees to acquire digital certifications.	4.10	.849	22.977	.000	2	High
Digital Competence	**4.02**	**.462**	**39.198**	**.000**	**--**	**High**

T-Tabulated = 1.960

4.2.4 Descriptive Statistics of Digital Operations

Table (4.4) presents the descriptive statistics for the Digital Infrastructure construct. The means of dimensions between 3.80 to 4.10 and standard deviation between .812 to .990, which mean the respondents agree on high importance of these dimensions. The overall mean score was 4.04, indicating a high level of digital operations in private universities, alos, the t-value support this result, where it is value more than T-tabulated (32.065 > 1.960) at significant level 0.05.

Table (4.4): Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Digital Operations

Item	Mean	Std. Deviation	t	Sig. (2-tailed).	Rank	Agree.
The university utilizes automation for repetitive tasks.	4.10	.812	23.933	.000	2	High
The university uses data dashboards to monitor KPIs in real-time.	3.81	.903	15.834	.000	3	High
The university speeds up administrative processes through digitalization.	3.80	.990	14.332	.000	4	High
The university uses data-driven reports for its operational planning.	4.10	.867	22.482	.000	1	High
Digital Operations	**3.95**	**.525**	**32.065**	**.000**	**--**	**High**

T-Tabulated = 1.960

4.2.5 Descriptive Statistics of Digital Organizational Culture

Table (4.5) illustrates the descriptive statistics for the Digital Infrastructure construct. The means of dimensions between 3.74 to 4.25 and standard deviation between .745 to 1.053, which mean the respondents agree on high importance of these dimensions. The overall mean score was 4.04, indicating a high level of digital culture in private universities, also, the t-value support this result, where it is value more than T-tabulated (38.799 > 1.960) at significant level 0.05. All items were statistically significant, suggesting strong organizational support for digital innovation.

Table (4.5): Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Digital Organizational Culture

Item	Mean	Std. Devi.	t	Sig. (2-tailed).	rank	Agree.
The university empowers its leaders to actively experiment with new digital ideas among employees.	4.04	.754	24.352	.000	3	High
The university fosters an environment where employees feel safe to propose new digital solutions.	4.25	.745	29.750	.000	1	High
The university promotes effective collaboration between the IT department and all other units.	4.22	.759	28.444	.000	2	High
The university rewards employees for using innovative technology.	3.74	1.053	12.452	.000	4	High
Digital Organizational Culture	**4.06**	**.484**	**38.799**	**.000**	**--**	**High**

T-Tabulated = 1.960

4.2.6 Descriptive Statistics of Strategic Decision-Making (Overall)

Table (4.6) summarizes the descriptive statistics for the Strategic Decision-Making construct. The means of dimensions between 2.95 to 4.89 and standard deviation between .499 to .532, which mean the respondents agree on high importance of these dimensions. The overall mean score was 4.04, indicating a high level of strategic decision-making in private universities, also, the t-value support this result, where it is value more than T-tabulated (41.232 > 1.960) at significant level 0.05. supporting the reliability of the findings.

Table (4.6) Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Strategic Decision-Making

Item	Mean	Std. Deviation	t	Sig. (2-tailed).	Rank	Agree.
Rationality	4.0895	.49918	38.612	.000	1	High
Participation	4.0296	.52015	35.018	.000	2	High
Speed	3.9832	.53251	32.666	.000	3	High
Politics	2.9505	.70763	-1.238	.217	4	Moderate
Strategic Decision-Making	**3.7632**	**.35851**	**37.661**	**.000**	**--**	**High**

T-Tabulated = 1.960

4.2.7 Descriptive Statistics of Rationality

Table (4.7) presents the descriptive statistics for the Strategic Decision-Making construct. The means of dimensions between 4.00 to 4.16 and standard deviation between .780 to .892, which mean the respondents agree on high importance of these dimensions. The overall mean score was 4.04, indicating a high level of decision rationality in private universities, also, the t-value support this result, where it is value more than T-tabulated (38.612 > 1.960) at significant level 0.05. All items were statistically significant (Sig. < 0.05), reflecting a strong reliance on data and analysis in strategic decisions.

Table (4.7) Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Decision Rationality

Item	Mean	Std. Devia.	t	Sig. (2-tailed).	Rank	Agree.
The top management bases strategic decisions on comprehensive data analysis.	4.00	.844	20.974	.000	4	High
The top management evaluates potential outcomes before approving major decisions.	4.07	.892	21.219	.000	3	High
The top management uses digital system data in strategic decisions.	4.13	.780	25.666	.000	2	High
The top management follows a systematic process for making strategic choices.	4.16	.803	25.472	.000	1	High
Rationality	**4.08**	**.499**	**38.612**	**.000**	**--**	**High**

T-Tabulated = 1.960

4.2.8 Descriptive Statistics of Participation

Table (4.8) shows the descriptive statistics for the Strategic Decision-Making construct. The means of dimensions between 3.94 to 4.11 and standard deviation between .835 to 1.024, which mean the respondents agree on high importance of these dimensions. The overall mean score was 4.04, indicating a high level of decision participation in

private universities, also, the t-value support this result, where it is value more than T-tabulated (35.018 > 1.960) at significant level 0.05, indicating active involvement of academic and administrative stakeholders in strategic decisions.

Table (4.8): Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Decision Participation

Item	Mean	Std. Devia.	t	Sig. (2-tailed).	Rank	Agree.
The top management consults the department heads when making strategic decisions.	4.04	.835	22.144	.000	2	High
The top management establishes formal channels for faculty input on strategic academic decisions.	3.94	1.024	16.288	.000	4	High
The top management uses digital platforms to gather opinions from stakeholders.	4.02	.942	19.202	.000	3	High
The top management maintains a transparent decision-making process.	4.11	.913	21.473	.000	1	High
Participation	**4.02**	**.520**	**35.018**	**.000**	**--**	**High**

T-Tabulated = 1.960

4.2.9 Descriptive Statistics of Speed:

Table (4.9) presents the descriptive statistics for the Strategic Decision-Making construct. The means of dimensions between 3.89 to 4.10 and standard deviation between .871 to 1.002, which mean the respondents agree on high importance of these dimensions. The overall mean score was 4.04, indicating a high level of decision speed in private universities, also, the t-value support this result, where it is value more than T-tabulated (32.666 > 1.960) at significant level 0.05, reflecting efficiency in strategic decision processes.

Table (4.9) Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Decision Speed

Item	Mean	Std. Devia.	t	Sig. (2-tailed).	Rank	Agree.
The top management reduces the time taken to make strategic decisions.	3.96	1.002	16.972	.000	3	High
The top management makes strategic decisions faster than three years ago.	4.10	.896	21.753	.000	1	High
The top management uses real-time information to enable faster strategic decision-making.	3.98	.871	19.852	.000	2	High
The top management prevents bureaucratic procedures from delaying strategic decision-making.	3.89	.910	17.332	.000	4	High
Speed	**3.98**	**.532**	**32.666**	**.000**	**--**	**High**

T-Tabulated = 1.960

4.2.10 Descriptive Statistics of Politics

Table (4.10) illustrates the descriptive statistics for the Strategic Decision-Making construct. The means of dimensions between 2.74 to 3.26 and standard deviation between .835 to 1.024. The overall mean score was 4.04, indicating a moderate level of decision participation in private universities, also, the t-value support this result, where it is value more than T-tabulated (-1.238 > 1.960) at significant level 0.05, indicating a moderate level of political influence in strategic decision-making. Items related to personal relationships and alliances recorded relatively lower mean values, and some items were not statistically significant. This suggests that political considerations play a limited role in strategic decisions within private universities.

Table (4.10) Mean, Standard Deviation, t-Value, Ranking, and Implementation Level of Decision Politics

Item	Mean	Std. Devia.	t	Sig. (2-tailed).	rank	Agree.
The top management makes strategic decisions reflecting the preferences of powerful groups.	3.26	1.194	3.883	.000	1	Moderate
The top management bases strategic decisions on personal relationships.	2.74	1.246	-3.719	.000	4	Moderate
The top management avoids approving decisions that challenge powerful parties.	2.91	1.279	-1.193	.234	2	Moderate
The top management forms alliances to approve strategic proposals.	2.89	1.194	-1.656	.099	3	Moderate
Politics	**2.95**	**.707**	**-1.238**	**.217**	**--**	**Moderate**

T-Tabulated = 1.960

4.2.11 The relationship between independent and dependent variables

The Pearson Correlation Test was used to examine the relationships among the study variables. **Table (4.11)** shows that the relationships among the Digital Transformation sub-variables are positive and statistically significant, with correlations ranging from 0.183 to 0.355, indicating acceptable internal consistency. In addition, the relationships among the Strategic Decision-Making dimensions are strong and significant, with correlation values ranging between 0.335 and 0.655. Finally, the relationship between the independent variable, Digital Transformation, and the dependent variable, Strategic

Decision-Making, is positive and significant (r = 0.448), suggesting that higher levels of digital transformation are associated with more effective strategic decision-making.

Table (4.11): Relationship between Independent and Dependent Variables

Variables/Sub-Variables		1	2	3	4	5	6	7	8	9	10
1	Digital Infrastructure	1									
2	Digital Competence	.270**	1								
		.000									
3	Digital Operations	.254**	.183**	1							
		.000	.001								
4	Digital Organizational Culture	.355**	.284**	.243**	1						
		.000	.000	.000							
5	Digital Transformation	.696**	.632**	.650**	.699**	1					
		.000	.000	.000	.000						
6	Rationality	.189**	.163**	.227**	.285**	.324**	1				
		.001	.004	.000	.000	.000					
7	Participation	.217**	.178**	.261**	.324**	.368**	.335**	1			
		.000	.002	.000	.000	.000	.000				
8	Speed	.228**	.277**	.261**	.304**	.400**	.281**	.334**	1		
		.000	.000	.000	.000	.000	.000	.000			
9	Politics	.078	.096	.037	.084	.109	.113*	.089	.130*	1	
		.169	.089	.517	.136	.055	.046	.114	.022		
10	Strategic Decision-Making	.268**	.272**	.289**	.371**	.448**	.630**	.648**	.655**	.613**	1

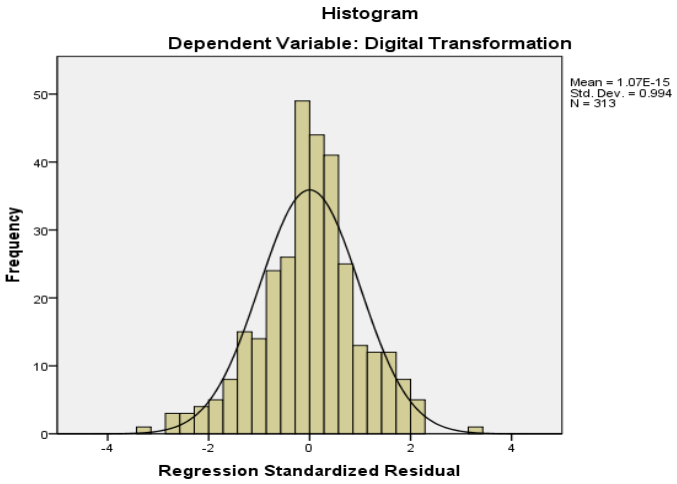
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

4.3 Hypothesis Testing

After establishing the validity, reliability, and correlation of the measurement instrument and confirming the existence of significant correlations between the independent and dependent variables, additional diagnostic tests were conducted to ensure the appropriateness of regression analysis, as recommended by Sekaran (2019).

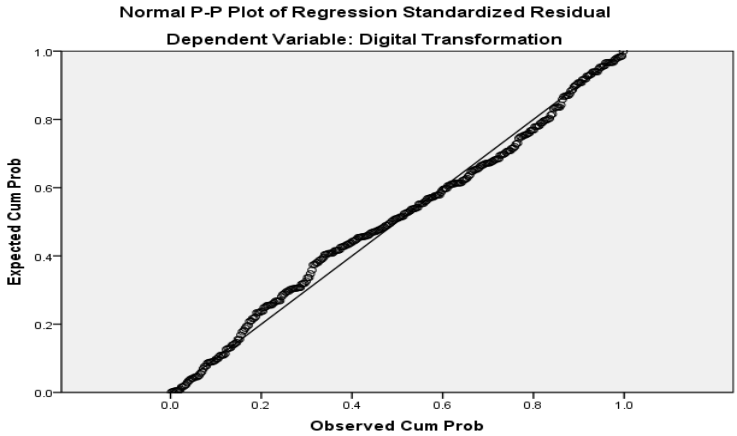
4.3.1 Normality:

regarding the normality assumption, Figure (4.12) illustrates that the data follows an approximately normal distribution. Accordingly, the normality assumption of the regression model is satisfied and not violated



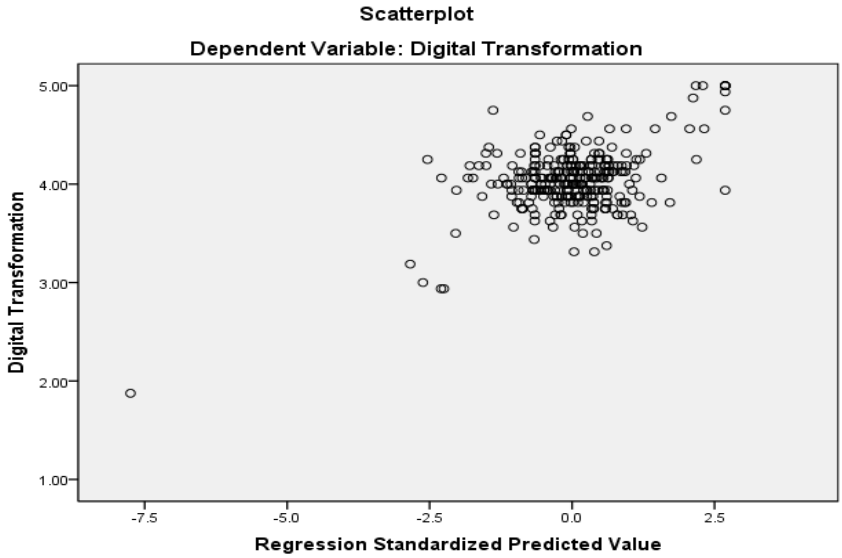
4.3.2 Linearity

regarding the linearity assumption, Figure (4.13) indicates the presence of a linear relationship between independent and dependent variables. Therefore, the regression model satisfies the linearity assumption and does not violate this requirement



4.3.3 Equal variance (homoscedasticity):

regarding the equal variance (homoscedasticity) assumption, Figure (4.14) shows that the residuals are randomly scattered around the mean, indicating no systematic relationship between the errors and the predicted values. Accordingly, the homoscedasticity assumption is satisfied, and the regression model does not violate this requirement.



4.3.4 Regarding the multicollinearity assumption

The results show that the Variance Inflation Factor (VIF) values are below 10, while the tolerance values exceed 0.10. These findings indicate the absence of multicollinearity among independent variables. Accordingly, the regression model does not violate the multicollinearity assumption.

Table (4.15): Durbin – Watson Value and Variance Inflation Factor

Sub-Variables	Collinearity Statistics		
	Tolerance	VIF	Durbin-Watson
Rationality	.851	1.175	2.148
Participation	.824	1.213	
Speed	.849	1.178	
Politics	.976	1.025	

Based on Sekaran's Criterion

According to Sekaran and Bougie (2019), a t-value of approximately ±2 or higher indicates a statistically significant effect at the 0.05 significance level. Autocorrelation.

Main Hypothesis (H01)

H01: Digital Transformation combined dimensions do not have a statistically significant effect on Strategic Decision-Making dimensions (Rationality, Participation, Speed, and Politics) in private universities in Jordan at $\alpha \leq 0.05$.

Table (4.16) presents the results of the multiple regression analysis examining the effect of Strategic Decision-Making dimensions on Digital Transformation. The results

indicate that the regression model is statistically significant (F = 25.449, Sig. = 0.000), confirming the overall suitability of the model. The coefficient of determination shows that the independent variables explain 24.8% of the variance in Digital Transformation ($R^2 = 0.248$), while the adjusted R^2 value (0.239) indicates a stable explanatory power of the model. In addition, the Durbin–Watson value (2.148) suggests the absence of autocorrelation in the residuals.

Accordingly, the null hypothesis is rejected, and the alternative hypothesis is accepted, indicating that Strategic Decision-Making dimensions (Rationality, Participation, Speed, and Politics) have a statistically significant effect on Digital Transformation in private universities in Jordan at $\alpha \leq 0.05$.

Table (4.16): Results of Multiple Regression Analysis

Model	R	R Square	Adjusted R Square	F	Sig.
1	.498[a]	.248	.239	25.449	.000[a]

a. Predictors: (Constant), Politics, Participation, Rationality, Speed
b. Dependent Variable: Digital Transformation

Based on the dimensions of Strategic Decision-Making, Table (4.17) presents the relative impact of each sub-variable on Digital Transformation in private universities in Jordan. The results indicate that three dimensions have a statistically significant effect on digital transformation. Decision Speed exerted the strongest influence ($\beta = 0.275$, t = 5.137, Sig. = 0.000), followed by Participation ($\beta = 0.216$, t = 3.966, Sig. = 0.000) and Rationality ($\beta = 0.170$, t = 3.176, Sig. = 0.002). In contrast, the Politics dimension did not show a statistically significant effect on digital transformation ($\beta = 0.035$, t = 0.691, Sig. = 0.490). These findings indicate that digital transformation in private universities is primarily driven by timely, participatory, and rational strategic decision-making practices, rather than political considerations.

Table (4.17): Results of Multiple Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t-Value	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.318	.177		13.106	.000
	Rationality	.111	.035	.170	3.176	.002
	Participation	.136	.034	.216	3.966	.000
	Speed	.169	.033	.275	5.137	.000
	Politics	.016	.023	.035	.691	.490

T-Tabulated = 1.960

Sub-Hypothesis (H01.1): Impact on Decision Rationality

The results show that digital transformation has a statistically significant positive effect on decision rationality (β = 0.170, t = 3.176, Sig. = 0.002). Since the calculated t-value exceeds the tabulated value of 1.960 and the significance level is less than 0.05, the null sub-hypothesis is rejected. This indicates that digital transformation contributes to more rational and evidence-based strategic decision-making.

Sub-Hypothesis (H01.2): Impact on Decision Participation

The findings indicate a statistically significant positive impact of digital transformation on decision participation (β = 0.216, t = 3.966, Sig. = 0.000). The t-value is greater than the critical value and the significance level is below 0.05, leading to the rejection of the null sub-hypothesis. This result suggests that digital transformation enhances stakeholder involvement and participative decision-making processes.

Sub-Hypothesis (H01.3): Impact on Decision Speed

The results demonstrate that digital transformation has a strong and statistically significant positive effect on decision speed (β = 0.275, t = 5.137, Sig. = 0.000). As the calculated t-value exceeds the tabulated value and the significance level is less than 0.05, the null sub-hypothesis is rejected. This finding indicates that digital transformation significantly accelerates strategic decision-making processes.

Sub-Hypothesis (H01.4): Impact on Politics

The results show that digital transformation does not have a statistically significant effect on politics in decision-making (β = 0.035, t = 0.691, Sig. = 0.490). Since the calculated t-value is less than the tabulated value of 1.960 and the significance level exceeds 0.05, the null sub-hypothesis is accepted. This indicates that digital transformation does not significantly influence political behavior in strategic decision-making.

In summary, this chapter presented the statistical analysis of the study data to examine the relationship between digital transformation and strategic decision-making in private universities in Jordan. The findings revealed a high level of digital transformation and generally strong strategic decision-making practices, particularly in terms of rationality, participation, and speed, while political behavior showed a moderate

influence. Correlation and regression analyzes confirmed significant positive relationships between the study variables, and diagnostic tests verified that all regression assumptions were met. The results demonstrated that decision speed, participation, and rationality significantly contribute to digital transformation, whereas political behavior does not, highlighting that effective digital transformation is associated with more rational, participative, and timely strategic decisions. Overall, the chapter provides strong empirical support for the study hypotheses and establishes a solid foundation for the discussion and conclusions presented in the following chapter.

Chapter Five
Discussion of Findings and Recommendation

5.1 Discussion of the Findings

The findings of this study indicate that private universities in Jordan report a high level of digital transformation (overall M = 4.04), with Digital Infrastructure ranked first, and that digital transformation is positively associated with strategic decision-making (r = 0.448) and enhances decision rationality, participation, and speed, while showing no significant effect on decision politics (β = 0.035, Sig. = 0.490).

These results align with recent literature arguing that digital transformation improves decision effectiveness by strengthening data availability, integration, and analytics-driven governance (Chen & Jaw, 2023; Rêgo et al., 2022), and is consistent with evidence that digitally enabled operations and culture increase agility and decision speed (Cyfert et al., 2025; Li et al., 2025).

The strong performance of rationality and participation also supports strategic decision perspectives emphasizing information processing and stakeholder involvement as key decision-quality drivers (Eisenhardt, 1989; Elbanna et al., 2020), and matches regional university research highlighting the role of leaders' digital capabilities in improving decision effectiveness (Al-Hamdani et al., 2023) and the uneven maturity of digital transformation in higher education in Jordan (Al-Sayyid, 2022).

Finally, the non-significant political result can be interpreted as indicating that political behavior is more structurally embedded and less sensitive to technological upgrades alone—especially when transparency and standardized digital routines already constrain informal influence—an interpretation consistent with the rational–political view of decision-making and the argument that culture and governance shape how (and whether) digital tools translate into behavioral change (Elbanna et al., 2020; Bakry, 2024).

5.1.1 The Impact of Digital Transformation on Strategic Decision-Making

The findings of the current study demonstrate that digital transformation has a statistically significant impact on strategic decision-making in private universities in Jordan. This result confirms that digital transformation extends beyond technological

adoption and plays a critical role in shaping how strategic decisions are formulated, evaluated, and implemented. Consistent with contemporary literature, digital transformation emerges as a strategic enabler that enhances decision rationality, participation, speed, and governance quality rather than merely improving operational efficiency (Bharadwaj et al., 2013; Verhoef et al., 2021).

Overall, the results of this study align with prior empirical research indicating that organizations with higher levels of digital transformation exhibit more structured, transparent, and agile strategic decision-making processes. However, the present study contributes new empirical evidence by validating these relationships within the context of Jordanian private universities and by examining digital transformation as a multidimensional construct encompassing digital infrastructure, digital competence, digital operations, and digital organizational culture.

5.1.2 Digital Transformation and Decision Rationality

The findings indicate that digital transformation significantly enhances decision rationality in strategic decision-making. This result is consistent with earlier studies suggesting that digital systems improve access to accurate, timely, and integrated information, thereby supporting analytical and evidence-based decisions (Chen et al., 2012; Eisenhardt, 1989). Digital infrastructure and analytics platforms enable decision-makers to evaluate alternatives systematically, reduce uncertainty, and rely less on intuition when making strategic choices.

Previous research has emphasized that digital transformation strengthens rationality by integrating data across organizational units and enabling advanced analytical capabilities (Bharadwaj et al., 2013; Mithas et al., 2013). The findings of the current study confirm this relationship in the higher education context, where access to real-time academic, financial, and administrative data supports more informed strategic decisions related to enrollment planning, resource allocation, and institutional development. This result reinforces the argument that rational decision-making is a key mechanism through which digital transformation creates strategic value (McCarthy et al., 2023).

5.1.3 Digital Transformation and Decision Participation

The results also show that digital transformation has a statistically significant positive impact on decision participation. This finding supports prior studies indicating that digital platforms facilitate communication, information sharing, and collaboration among stakeholders, thereby enabling broader involvement in strategic decision-making processes (Sebastian et al., 2017; McCarthy et al., 2023). In digitally transformed environments, shared access to information reduces informational asymmetry and empowers academic and administrative leaders to contribute meaningfully to strategic discussions.

In the context of universities, participative decision-making is particularly important due to shared governance traditions and the involvement of multiple stakeholders. The current study's findings align with Elbanna et al. (2020), who argued that transparent information systems and inclusive processes enhance participation and decision legitimacy. Digital transformation appears to strengthen these processes by providing platforms that support consultation, coordination, and collective sense-making, thereby improving the quality and acceptance of strategic decisions.

5.1.4 Digital Transformation and Decision Speed

The further findings indicate that digital transformation significantly improves decision speed in private universities. This result is consistent with strategic management literature emphasizing that digital technologies streamline workflows, automated routine processes, and enable real-time access to information, which collectively reduce decision-making cycle times (Baum & Wally, 2003; Cyfert et al., 2025). Digitally enabled operations allow organizations to respond more rapidly to environmental changes and emerging opportunities.

Prior studies have demonstrated that organizations with advanced digital operations exhibit greater strategic agility and faster execution of decisions (Nath, 2025; Cyfert et al., 2025). The current study confirms these findings within the higher education sector, suggesting that digital transformation enables universities to accelerate decision-making related to academic programs, technology investments, and administrative processes. However, consistent with Eisenhardt (1989), the findings also imply that speed is most

beneficial when supported by adequate analysis and coordination, highlighting the complementary role of rationality and participation.

5.1.5 Digital Transformation and Decision Politics

The results of the study also reveal that digital transformation has no statistically significant impact on decision politics. This finding aligns with behavioral perspectives on strategic decision-making, which suggest that transparency and shared access to information can reduce the influence of personal interests and informal power dynamics in decision processes (Elbanna et al., 2020). Digital transformation, particularly when supported by a strong digital organizational culture, promotes objectivity and accountability by making information visible and verifiable.

Previous research has indicated that digital systems can mitigate political behavior by standardizing information flows and emphasizing data-driven criteria in strategic discussions (Bakry, 2024; Li et al., 2025). The findings of the current study extend this argument by demonstrating that digital transformation influences political behavior within private universities, a context characterized by complex governance structures and competing stakeholder interests. This result underscores the importance of aligning digital initiatives with cultural and leadership practices that promote transparency and trust.

5.1.6 Integrated Impact of Digital Transformation on Strategic Decision-Making

Taken together, the findings confirm that digital transformation exerts a comprehensive and integrated impact on strategic decision-making. Rather than affecting individual decision dimensions in isolation, digital transformation reshapes the overall decision-making environment by enhancing information quality, facilitating collaboration, accelerating processes, and improving governance mechanisms. This integrated impact supports the multidimensional conceptualization of digital transformation advanced in recent literature (Verhoef et al., 2021; Cyfert et al., 2025).

While the findings of the current study are consistent with previous research, they also extend the literature in several important ways. First, the study empirically validates the impact of digital transformation on strategic decision-making within the underexplored context of private universities in Jordan. Second, it demonstrates that

digital transformation should be understood as a strategic leadership process rather than merely a technological upgrade. Finally, the study highlights that the benefits of digital transformation for strategic decision-making depend on the combined interaction of technological, human, operational, and cultural dimensions.

In summary, the results provide strong empirical support for the argument that digital transformation significantly enhances strategic decision-making quality and effectiveness. By improving rationality, participation, speed, and governance, digital transformation functions as a strategic enabler that supports universities in navigating an increasingly complex and dynamic higher education environment.

5.2 Conclusions

This study concludes that digital transformation plays a critical and positive role in enhancing strategic decision-making within private universities in Jordan. The findings demonstrate that high levels of digital infrastructure, digital competence, digital operations, and digital organizational culture are associated with more rational, participative, and timely strategic decisions, confirming that digital transformation functions as a strategic enabler rather than a purely technical initiative. Consistent with recent studies, the results indicate that decision speed and participation are the most influential dimensions, reflecting the importance of real-time information, data integration, and inclusive digital platforms in contemporary decision environments. Conversely, the absence of a significant effect of digital transformation on political behavior suggests that political dynamics are more deeply rooted in organizational culture and governance structures and are less responsive to technological advancement alone. Overall, the study extends recent empirical literature by providing evidence from the Jordanian higher education context and confirms that effective digital transformation contributes to higher-quality strategic decision-making, offering valuable implications for both theory and practice.

5.3 Recommendations

Based on the findings of this study, several recommendations are proposed for private universities in Jordan and other similar organizations seeking to enhance strategic decision-making through digital transformation.

First, **private universities** should prioritize strategic investment in digital infrastructure and integrated systems, ensuring that data from academic, financial, and administrative units are unified and accessible in real time. Strengthening data integration will further enhance decision rationality and speed, which were found to have a significant impact on digital transformation effectiveness.

Second, **university leadership** should focus on developing digital competencies among academic and administrative staff through continuous training, capacity-building programs, and incentives for acquiring digital certifications. Enhancing human digital capabilities is essential to maximize the strategic value of digital systems and support participative decision-making.

Third, **universities** are encouraged to embed digital transformation within organizational culture, by promoting collaboration between IT units and other departments, empowering leaders to experiment with digital initiatives, and creating safe environments for proposing innovative solutions. A supportive digital culture was shown to be a key enabler of effective strategic decision-making.

Fourth, **decision-makers** should leverage digital tools to institutionalize participatory decision-making mechanisms, such as digital platforms for consultation, feedback, and stakeholder engagement. This will strengthen transparency and inclusiveness while improving the quality and acceptance of strategic decisions.

Fifth, since **political behavior** was found to have no significant influence on digital transformation, universities should complement digital initiatives with governance reforms and clear decision-making frameworks to further limit informal influence and ensure that strategic decisions are guided by data, analysis, and institutional priorities rather than personal or political considerations.

Finally, **policymakers and higher education authorities** are advised to develop national guidelines and benchmarking frameworks that support digital transformation

maturity in universities. Such frameworks can help assess institutions' progress, share best practices, and align digital transformation initiatives with national higher education and digital economy strategies.

5.4 Suggestions for Future Research

Based on the findings and scope of the current study, several directions for future research are recommended. **First,** future studies may examine the impact of digital transformation on strategic decision-making across different sectors, such as healthcare, banking, manufacturing, and public organizations, to enhance the generalizability of the results beyond the higher education context.

Second, future research could adopt longitudinal research designs to assess how digital transformation initiatives influence strategic decision-making over time. Such designs would provide deeper insights into causal relationships and the sustainability of digital transformation outcomes.

Third, researchers are encouraged to explore mediating and moderating variables, such as leadership style, organizational governance, innovation capability, or organizational structure, to better understand the mechanisms through which digital transformation affects strategic decision-making.

Fourth, qualitative or mixed-methods approaches, including interviews and case studies, may be employed to capture deeper managerial contextual perspectives and factors that cannot be fully explained through quantitative data alone, particularly regarding political behavior and governance dynamics.

Finally, future studies could refine and extend the current measurement model by incorporating advanced digital technologies (e.g., artificial intelligence, data analytics, and decision support systems) to examine their specific roles in enhancing decision rationality, participation, and speed in organizational settings.

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Appendices

Appendix No. (1) Panel for Referees Committee

No.	Expert name	University
1	Prof. Ahmad Ali Saleh	MEU Middle East University
2	Prof. Ali Mohammad Adaileh	MEU Middle East University
3	Prof. Nidal AL Salihi	UOP University of Pertta
4	Dr. Fandi Omaish	PSUT Princess Sumaya University for Technology
5	Dr. Raed Almestarihi	ZUJ Al-Zaytoonah University of Jordan

Appendix No. (2) (The Questionnaire – Arabic version)

جـــامـعـــة الـــشـرق الأوسـط
MIDDLE EAST UNIVERSITY
Amman - Jordan

السادة/ أعضاء عينة الدراسة،
تحية طيبة وبعد،

أنت مدعو للمشاركة في استبيان بحثي كجزء من متطلبات رسالة الماجستير في إدارة الأعمال بجامعة الشرق الأوسط.

تهدف هذه الدراسة إلى فحص أثر أبعاد التحول الرقمي مجتمعة (البنية التحتية الرقمية، الكفاءة الرقمية، العمليات الرقمية، الثقافة التنظيمية الرقمية) على أبعاد اتخاذ القرارات الاستراتيجية (العقلانية، المشاركة، السرعة، السياسات) في الجامعات الخاصة في الأردن.

سيتم استخدام البيانات المجمعة لأغراض أكاديمية بحتة، وسيتم التعامل مع جميع الإجابات بسرية تامة وبطريقة مجمعة، مما يضمن عدم إمكانية تحديد هوية أي مشارك فردي. ستساهم إجاباتك القيمة في تقديم رؤى عملية لتطوير العمل الإداري والقيادي في مؤسسات التعليم العالي.

مدة الاستبيان: حوالي 10-15 دقيقة.

نشكركم مقدماً على وقتكم الثمين وتعاونكم الذي سيساهم بشكل كبير في إنجاح هذا العمل البحثي.

مع خالص التقدير،

القسم الأول: معلومات ديموغرافية

يرجى تقديم بعض المعلومات الأساسية عن نفسك بوضع علامة (✓) في المربع المناسب في كل من الأسئلة التالية:

1. **النوع الاجتماعي** ☐ ذكر ☐ انثى

2. **الفئة العمرية التي تنتمي اليها:** ☐ أقل من 30 ☐ 30 – 39 ☐ 40 - 49 ☐ 50 فأكثر

3. **المؤهل العلمي :** ☐ بكالوريوس ☐ دبلوم عالي ☐ دراسات عليا

1. **سنوات الخبرة في القطاع الجامعي**

☐ اقل من 5 سنوات
☐ اقل من 10 سنوات
☐ اقل من 15 سنة
☐ 15 سنة فأكثر

2. **المستوى الإداري**

☐ الإدارة العليا (عميد، نائب عميد، مدير)
☐ الإدارة التنفيذية (رئيس قسم، مدير إدارة)
☐ الإدارة الوسطى (مشرف، رئيس فريق)

القسم الثاني : التحول الرقمي في الممارسة الفعلية

يتضمن هذا القسم 32 سؤالاً مصمماً لتقييم مدى تطبيق التحول الرقمي حالياً وتأثيره المُدرك على صنع القرار الإستراتيجي في الجامعات الخاصة الأردنية.

يرجى تقييم كل بند بناءً على الممارسات الفعلية والتطبيق الحالي في جامعتك، وليس بناءً على المعتقدات أو النوايا المستقبلية، بإستخدام المقياس التالي : 1=أرفق بشده، 2=أرفض، 3=محايد، 4=أوافق، 5=اوافق بشده.

	التحول الرقمي					
	البنية التحتية الرقمية					
1	تستثمر الجامعة في خدمات الحوسبة السحابية لدعم عملياتها.	1	2	3	4	5
2	توفر الجامعة شبكة إنترنت قوية في جميع فروعها.	1	2	3	4	5
3	تستخدم الجامعة أنظمة برمجية متكاملة.	1	2	3	4	5
4	تخصص الجامعة ميزانية سنوية كافية لتطوير البنية التحتية الرقمية.	1	2	3	4	5
	الكفائات الرقمية					
1	تستقطب الجامعة موظفين ذوي كفاءة رقمية عالية.	1	2	3	4	5
2	تقدم الجامعة برامج تدريبية على الأنظمة الرقمية.	1	2	3	4	5
3	توفر الجامعة أنظمة رقمية سهلة الاستخدام.	1	2	3	4	5
4	تشجع الجامعة موظفيها على الحصول على شهادات رقمية.	1	2	3	4	5
	العمليات الرقمية					
1	تستخدم الجامعة الأتمتة في المهام المتكررة.	1	2	3	4	5
2	تستخدم الجامعة لوحات بيانات لمراقبة مؤشرات الأداء الرئيسية في الوقت الفعلي.	1	2	3	4	5
3	تعمل الجامعة على تسريع العمليات الإدارية من خلال التحول الرقمي.	1	2	3	4	5
4	تستخدم الجامعة التقارير القائمة على البيانات في تخطيطها التشغيلي.	1	2	3	4	5
	الثقافة التنظيمية الرقمية					
1	تُمكّن الجامعة قادتها من تجربة الأفكار الرقمية الجديدة بنشاط بين الموظفين.	1	2	3	4	5
2	تعمل الجامعة على تهيئة بيئة يشعر فيها الموظفون بالأمان لاقتراح حلول رقمية جديدة.	1	2	3	4	5
3	تشجع الجامعة التعاون الفعال بين قسم تكنولوجيا المعلومات وجميع الوحدات الأخرى.	1	2	3	4	5
4	تكافئ الجامعة موظفيها على استخدام التكنولوجيا المبتكرة.	1	2	3	4	5
	صنع القرار الإستراتيجي					
	العقلانية					
1	تعتمد الإدارة العليا في اتخاذ القرارات الاستراتيجية على تحليل شامل للبيانات.	1	2	3	4	5
2	تقوم الإدارة العليا بتقييم النتائج المحتملة قبل الموافقة على القرارات الرئيسية.	1	2	3	4	5
3	تستخدم الإدارة العليا بيانات النظام الرقمي في القرارات الاستراتيجية.	1	2	3	4	5
4	تتبع الإدارة العليا عملية منهجية لاتخاذ الخيارات الاستراتيجية.	1	2	3	4	5

المشاركة						
1	تستشير الإدارة العليا رؤساء الأقسام عند اتخاذ القرارات الاستراتيجية.	1	2	3	4	5
2	تُنشئ الإدارة العليا قنوات رسمية لإبداء أعضاء هيئة التدريس آراءهم بشأن القرارات الأكاديمية الاستراتيجية.	1	2	3	4	5
3	تستخدم الإدارة العليا المنصات الرقمية لجمع آراء أصحاب المصلحة.	1	2	3	4	5
4	تحافظ الإدارة العليا على عملية صنع قرار شفافة.	1	2	3	4	5
السرعة						
1	تعمل الإدارة العليا على تقليل الوقت اللازم لاتخاذ القرارات الاستراتيجية.	1	2	3	4	5
2	تتخذ الإدارة العليا قرارات استراتيجية بوتيرة أسرع مما كانت عليه قبل ثلاث سنوات.	1	2	3	4	5
3	تستخدم الإدارة العليا المعلومات الآنية لتمكين اتخاذ القرارات الاستراتيجية بشكل أسرع.	1	2	3	4	5
4	تمنع الإدارة العليا الإجراءات البيروقراطية من تأخير عملية صنع القرار الاستراتيجي.	1	2	3	4	5
السياسة						
1	تتخذ الإدارة العليا قرارات استراتيجية تعكس تفضيلات الجماعات القوية.	1	2	3	4	5
2	تعتمد الإدارة العليا في اتخاذ القرارات الاستراتيجية على العلاقات الشخصية.	1	2	3	4	5
3	تتجنب الإدارة العليا الموافقة على القرارات التي تتحدى الأطراف القوية.	1	2	3	4	5
4	تُشكّل الإدارة العليا تحالفات للموافقة على المقترحات الاستراتيجية.	1	2	3	4	5

Appendix No. (3) (the questionnaire – English version)

Dear, Participants
Greetings and best regards,

You are invited to participate in a research survey as part of the requirements for a Master's thesis in Business Administration at Middle East University.

This study aims to examine the combined impact of digital transformation dimensions—digital infrastructure, digital competence, digital operations, and digital organizational culture—on strategic decision-making dimensions—rationality, participation, speed, and politics—within private universities in Jordan.

The collected data will be used solely for academic purposes, and all responses will be handled with strict confidentiality and in an aggregated form, ensuring that no individual participant can be identified. Your valuable responses will contribute to providing practical insights for the development of administrative and leadership practices in higher education institutions.

The questionnaire will take approximately 10–15 minutes to complete.

We thank you in advance for your valuable time and cooperation, which will greatly contribute to the success of this research.

With sincere appreciation,

Part One: Demographic Information

Please provide some basic information about yourself by marking (✓) in the appropriate box for each of the following questions:

1. **Gender:** ☐ Male ☐ Female
2. **Age:**
   - ☐ Less than 30 years, ☐ 30 - 35 years
   - ☐ 35 - 40 years ☐ 40 years and above
3. **Years of Experience in the University Sector:**
   - ☐ Less than 5 years ☐ 5 - 10 years
   - ☐ 11 - 15 years ☐ More than 15 years
4. **Academic Qualification:** ☐ Bachelor's Degree, ☐ Master's Degree, ☐ PhD
5. **Management Level:**
   - ☐ Top Management (Dean, Vice Dean, Director)
   - ☐ Senior Management (Department Head, Manager)
   - ☐ Middle Management (Supervisor, Team Leader)

Part Two: Digital Transformation in Practice

This section includes 32 questions designed to assess the current extent of digital transformation implementation and its perceived impact on strategic decision-making in private Jordanian universities.

Please rate each item based on the actual practices and current implementation in your university, rather than on beliefs or future intentions, using the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

Digital Transformation						
Digital Infrastructure						
1	The university invests in cloud computing services to support its operations.	1	2	3	4	5
2	The university provides a robust internet network across all campuses.	1	2	3	4	5
3	The university uses integrated software systems.	1	2	3	4	5
4	The university allocates a sufficient annual budget for developing digital infrastructure.	1	2	3	4	5
Digital Competence						
1	The university recruits digitally proficient employees.	1	2	3	4	5
2	The university provides training programs on digital systems.	1	2	3	4	5
3	The university provides user-friendly digital systems.	1	2	3	4	5
4	The university encourages employees to acquire digital certifications.	1	2	3	4	5
Digital Operations						
1	The university utilizes automation for repetitive tasks.	1	2	3	4	5
2	The university uses data dashboards to monitor KPIs in real-time.	1	2	3	4	5
3	The university speeds up administrative processes through digitalization.	1	2	3	4	5
4	The university uses data-driven reports for its operational planning.	1	2	3	4	5
Digital Organizational Culture						
1	The university empowers its leaders to actively experiment with new digital ideas among employees.	1	2	3	4	5
2	The university fosters an environment where employees feel safe to propose new digital solutions.	1	2	3	4	5
3	The university promotes effective collaboration between the IT department and all other units.	1	2	3	4	5

4	The university rewards employees for using innovative technology.	1	2	3	4	5
Strategic Decision-Making						
Rationality						
1	The top management bases strategic decisions on comprehensive data analysis.	1	2	3	4	5
2	The top management evaluates potential outcomes before approving major decisions.	1	2	3	4	5
3	The top management uses digital system data in strategic decisions.	1	2	3	4	5
4	The top management follows a systematic process for making strategic choices.	1	2	3	4	5
Participation						
1	The top management consults the department heads when making strategic decisions.	1	2	3	4	5
2	The top management establishes formal channels for faculty input on strategic academic decisions.	1	2	3	4	5
3	The top management uses digital platforms to gather opinions from stakeholders.	1	2	3	4	5
4	The top management maintains a transparent decision-making process.	1	2	3	4	5
Speed						
1	The top management reduces the time taken to make strategic decisions.	1	2	3	4	5
2	The top management makes strategic decisions faster than three years ago.	1	2	3	4	5
3	The top management uses real-time information to enable faster strategic decision-making.	1	2	3	4	5
4	The top management prevents bureaucratic procedures from delaying strategic decision-making.	1	2	3	4	5
Politics						
1	The top management makes strategic decisions reflecting the preferences of powerful groups.	1	2	3	4	5
2	The top management bases strategic decisions on personal relationships.	1	2	3	4	5
3	The top management avoids approving decisions that challenge powerful parties.	1	2	3	4	5
4	The top management forms alliances to approve strategic proposals.	1	2	3	4	5