

Artificial Intelligence and Strategic Decision-Making in Iraqi Private Universities: A Systematic Literature Review

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ABSTRACT

Artificial Intelligence (AI) is a strategic resource that is highly valuable in contemporary organisations, particularly owing to the fact that it has the capacity to hasten the speed of data analysis, predictive forecasting and evidence-based decision-making. This review aims to conduct a review of theoretical and empirical literature on the subject of AI-based strategic decision-making in Iraqi private universities, and through which a synthesised framework can be developed that outlines how the AI-related antecedents influence the strategic outcomes. The systematic literature review of Scopus, Web of Science, Google Scholar and EBSCO was researched and utilised the publications published between 2017 and 2024 that address the issues of AI adoption, organisational readiness, technological infrastructure, leadership support, and staff competency as applied to higher education and strategic management. The review presents the evidence presented by forty-seven peer-reviewed articles and proposes a mediating framework in which Smart Technology Utilisation is the primary process that links five antecedents variables to Strategic Decision-Making Effectiveness. Seven theoretical propositions are presented, which are developed on the basis of Resource-Based View and the Dynamic Capabilities Theory. These findings have revealed that strategic value of AI in Iraqi privatised universities is not being adopted but actively and integratively used in the implementation of smart technologies. University governance, digital strategy, and leadership development are found to have practical implications. The review adds to a contextualised theoretical perspective of AI-supported strategic management in higher education in developing countries and offers a falsifiable framework to conduct empirical research in the future.

Contribution/Originality: This study contributes to the existing literature by synthesizing a theoretically grounded mediating framework that positions Smart Technology Utilization as the central mechanism through which AI-related antecedents shape strategic decision-making effectiveness in Iraqi private universities — an

emerging context that remains largely underexplored in current research on AI-enabled strategic management.

1. Introduction

Artificial Intelligence (AI) is slowly being regarded as a strategic resource that is evolving in modern organisations. With the data analytics, machine learning, and intelligent decision-support systems, AI enhances the capacity of decision-makers to process complex information and identify trends in strategic decisions and make evidence-based decisions in a timely manner (Davenport and Ronanki, 2018; Brynjolfsson and McAfee, 2017; Csaszar and Eggers, 2023). Rather than replacing the managerial judgement, AI often supports it assisting leaders in evaluating options, uncertainty modelling and consistency of choices with the long-term goals of the organisation as a whole (Raisch & Krakowski, 2021).

In the tertiary education sector, some of the strategic issues affecting the private universities include programme development, resource management, student recruitment, online learning, quality assurance and institutional positioning. Timely, accurate, and evidence-based decision-making is necessary in order to navigate such pressures. However, in developing country contexts, most universities still use intuition-based and traditional administrative logic, which has led to a systematic disconnect to availability and strategic usage of technology (Mhlanga, 2022; Al-Samarrai, 2022).

This disparity is especially acute in Iraqi higher education institutions of the private sector, which are characterized by a regime of institutional uncertainty, uneven access to digital services and resources. Although AI is now recognized as a strategic enabler all over the world, there is little empirical data regarding its successful incorporation into strategic decision-making in Iraqi private universities (Salman and Ali, 2023; Doshi, 2024). The current literature shows a serious issue: the AI-related resources do not necessarily generate the strategic results. The resources should be substantially integrated into the decision routines to create value, which demands the presence of supportive organisational, infrastructural, and human elements (Alvarenga et al., 2020; Dwivedi et al., 2021).

The present review attempts to solve that issue by bringing together the theoretical and empirical literature on the antecedents of strategic decision-making effectiveness related to AI. It hypothesises that Smart Technology Utilisation is formed by Smart Technology Adoption, Organisational Preparation, technological infrastructure, Leadership Facilitation and Staff Competency, and that Smart Technology Utilisation forms the mediating role between these antecedents and Strategic Decision-Making Effectiveness. The review thus adds a synthesised theoretically based framework that can be applied to the Iraqi privately based universities and other situations in the developing world where higher education exists.

1.1. Research Objectives

The main idea of the review is to analyze the potential of Artificial Intelligence to improve the effectiveness of strategic decision-making in Iraqi private universities based on a literature review. The particular objectives are to revise the impact of smart technology adoption on Smart Technology Utilization, to investigate the role of organisational

preparedness in creating Smart Technology Utilization, to test the role of technological infrastructure in creating Smart Technology Utilization, to test the effect of leadership support on Smart Technology Utilization, to test the impact of staff competency on Smart Technology Utilization, and to test the mediating effect of Smart Technology Utilization on the relationship between AI-related ante.

1.2. Research Questions

The research questions developed to be used during the empirical study will help in ensuring that the study is systematic in addressing the research objectives. These questions are aimed at comprehending how Artificial Intelligence-related variables are related to the effectiveness of strategic decisions in the environment of Iraqi higher education in private universities.

- i. How does smart technology adoption influence strategic decision-making effectiveness in Iraqi private universities?
- ii. How does organizational readiness affect strategic decision-making effectiveness in Iraqi private universities?
- iii. To what extent does technological infrastructure contribute to strategic decision-making effectiveness in Iraqi private universities?
- iv. What role does leadership support play in enhancing strategic decision-making effectiveness in Iraqi private universities?
- v. How does staff competency influence strategic decision-making effectiveness in Iraqi private universities?
- vi. Does smart technology utilization mediate the relationship between Artificial Intelligence-related factors and strategic decision-making effectiveness in Iraqi private universities?

2. Literature Review

2.1. Artificial Intelligence as a Strategic Resource

Many Artificial Intelligence applications have increasingly become more than a tool of calculation, and are now being regarded as a strategic resource. The creation of AI has gained momentum in the twenty-first century due to improvements in machine learning, deep learning, and natural language processing, starting with rule-based expert systems in the 1960s and 1970s (Russell and Norvig, 2016; Brynjolfsson and McAfee, 2017). Modern AI models can handle extensive and complicated data sets, identify hidden patterns that do not exist to human observers, and produce predictive models that can be used to make evidence-based plans (Goodfellow et al., 2016; Borges et al., 2021).

In organisational research, AI has been redefined as a means of operational support to a means of strategic competitive advantage. The Resource-Based View (RBV) describes such repositioning by recognizing AI systems, data capabilities, and analytical platforms as firm resources, which could be rare, valuable, inimitable, and non-substitutable (Barney, 1991). Dynamic Capabilities Theory builds upon this line of thought by arguing that strategic advantage does not lie in resource possession but in the ability to perceive opportunities, mobilize them and restructure resources in accordance with the change in the environment (Eisenhardt and Martin, 2000). Recent literature uses both models to rationalise why organisations that have similar AI resources can have different strategic results, with variation explained by the level of Utilization and the organisational environment that can support it (Shrestha et al., 2021; Firk et al., 2024).

In higher education, AI has been used in institutional analytics, enrolment forecasting, resource management, academic programme planning and strategic performance monitoring. Nevertheless, the empirical data shows the unequal use of AI, especially in the context of developing countries where institutions are underdeveloped, and digital maturity remains low (Zawacki-Richter et al., 2019; Mhlanga, 2022). The context of the current review focuses on the situation of an Iraqi private university, where the issue of technology does not exist, but rather of institutional preconditions to implement the potential of AI into strategic value.

2.2. Smart Technology Adoption

The adoption of smart technology is a strategic indication of an organisation that is eager to adhere to the introduction of AI-based technologies and intelligent systems into managerial and administrative processes (Alvarenga et al., 2020; Dwivedi et al., 2021). Adoption refers to a multi-phase process that involves awareness, evaluation, trial and institutionalisation of new technologies in organisational routines (Venkatesh et al., 2012). Empirical research tends to indicate that organisations that have a higher degree of smart technology usage exhibit a greater analytical ability and responsiveness to environmental forces (Chen et al., 2015; Bharadwaj et al., 2013).

However, the literature warns against the assumption of equating strategic impact with adoption. Symbolic or partial adoption where technologies are bought, but are not integrated into strategic processes, yields minimal organisational value (Margherita and Bua, 2021). This difference is especially pronounced in the case of private universities: the proclamation of digital transformation can be carried out on an institutional level without implementing AI tools into planning, governance, or performance analysis (Al-Samarrai, 2022; Selwyn, 2019). Strategic value of adoption is only realised when technologies are operationalised in the core decision making routines, a realisation that drives the incorporation of Smart Technology Utilization as a mediating construct to the proposed framework.

2.3. Organisational Readiness

Organisational readiness is the cultural permeability, structural preparedness, financial capability, and change-management ability to achieve successful digital transformation (Weiner, 2009; Holt et al., 2007; Lokuge et al., 2019). In the research, it is always shown that prior preparation is a precondition of successful technology integration: organisations that are structurally and culturally ready are more prone to entrench the AI knowledge in their strategic routines, and are more inclined to continue with digital initiatives over time (Armenakis et al., 2011; Warner and Wäger, 2019).

The readiness of an organisation in the context of the Iraqi private university is limited by the governance structure, culture to change, financial autonomy, and infrastructures to support change management (Al-Husseini, 2020; Salman and Ali, 2023). These limitations curtail the extent to which the AI tools, once implemented, can be actively deployed in strategic planning and decision-making. The readiness in this case is not a predetermined feature but a dynamic institutional capability that could be built up by the commitment of the leadership, training programmes and the process of the continuous learning in the organisation (Rafferty et al., 2013).

2.4. Technological Infrastructure

Technological infrastructure consists of the hardware, software, data management system, network reliability, and technical support capacity that support the implementation of AI (Gao et al., 2022). AI systems demand integrated databases, real-time data streams, cloud computing systems, and secure digital infrastructures to operate on a strategic level. Empirical evidence supports the idea that the infrastructure adequacy is a necessary but not a sufficient factor to facilitate AI-enabled strategic decision-making (Armbrust et al., 2020; Zhang et al., 2020).

A major obstacle in the case of Iraqi private universities is infrastructural differences. The quality and integration of digital systems across institutions are different, with certain institutions having an unequal strategic capacity within the industry (Salman and Ali, 2023). Disparate information systems restrict the transparency of institutional performance, hinder information-based planning, and diminish the ability of leadership to respond to the AI-generated information. It is thus through the review where technological infrastructure is positioned as an antecedent of Smart Technology Utilization without which adoption will be of a strategic nature.

2.5. Leadership Support

Leadership support as the concept of AI adoption can be defined as the readiness of the top management to lead the digital transformation, to allocate the required resources, define the strategy, and promote the evidence-based management practices (Chatterjee et al., 2021; Dwivedi et al., 2021). Leadership commitment is always mentioned in empirical literature as one of the most significant factors in the success of technology integration in organisations (Avolio et al., 2014). By fostering a data-driven culture, leaders send institutional signals, minimise change resistance, and provide the organisational environment in which AI tools are wisely applied in governance and planning (Schein, 2017).

Support to leadership is not equally distributed in Iraqi private universities. Top managers tend to focus on the continuity of operations in the short term rather than investing in AI-centered strategic management in the long term (Al-Samarrai, 2022). This short-term orientation restrains the gravitas of Smart Technology Utilization and diminishes the chances that analytical outputs of AI systems will be integrated into strategic considerations. The review thus stipulates leadership support as a key antecedent the existence of which or lack of which greatly determines the degree of Smart Technology Usage that can be attained in a particular institution.

2.6. Staff Competency

Staff competency means the digital literacy, analytical skills, and confidence of academic and administrative staff in the use of AI tools and in understanding their outputs to make a strategic decision (Maroufkhani et al., 2020; Mikalef and Gupta, 2021). Empirical studies determine that even technologically advanced organisations do not gain the strategic value of AI when employees do not have the skills to convert the results of algorithms into actionable information (Jarrahi, 2018; Csaszar and Eggers, 2023). In this regard, competency goes beyond the fundamental level of digital literacy to include the more advanced level of analytical abilities, data interpretation, and the ability to apply AI outputs to strategic thinking (Keding, 2021).

The lack of training programmes, insufficient culture of data, and access to professional development resources in Iraqi private universities limits the competency of staff in AI-related skills (Maroufkhani et al., 2020; Al-Husseini, 2020). These competency gaps lower the performance of AI implementations and limit the ability of universities to utilize intelligent systems to plan their institution and govern it strategically. The review thus places staff competency as a human capital antecedent whose progress is imperative in facilitating Smart Technology Utilization on a significant strategic level.

2.7. Smart Technology Utilization

Smart Technology Usage is theorised as the degree to which systems and intelligent digital tools based on AI are actively and significantly integrated into strategic activities and planning, forecasting, performance monitoring, and evidence-based decision analysis (Shrestha et al., 2021). The construct differentiates between the access to AI tools and their deliberate inclusion in the strategic decision process and reflects the functional richness of AI use as opposed to its formal nature (Vial, 2019; Firk et al., 2024).

Evidence-based findings always place Smart Technology Usage as an important tool by which AI-related resources are translated into strategic deliverables. Those organisations that actively adopt smart technologies to analyse data, model scenarios, and evaluate performance show better quality in their decisions, are quicker to respond to changes in the environment, and can better align resources with the strategic goals (Firk et al., 2022; Chen et al., 2015). Contrarily, organisations with low Utilization have a lack of connection between the strategic performance and technology investment, and they frequently revert to the practice of making decisions intuitively, despite investing in AI systems (Margherita and Bua, 2021).

Smart Technology Usage has been noted in institutional analytics dashboards, enrolment and financial forecasting, academic performance monitoring, and support systems of strategic planning in universities. Those institutions that effectively incorporate the concept of Utilization into the governance structures have stronger adaptive capacity, increased transparency, and more evidence-based resources (Selwyn, 2019; Al-Husseini, 2020). The context of the Iraqi private university has limitations in terms of Utilization due to the conditions discussed above: partial adoption, infrastructural restrictions, leadership orientation, and human capital gap. The suggested framework makes Smart Technology Utilization the mediating construct in which antecedent conditions are converted into successful strategic outcomes or not.

2.8. Strategic Decision-Making Effectiveness

The effectiveness of strategic decision-making is described as how much strategic decisions are precise, prompt, evidence-based, aligned with the long-term organisational goals and responsive to environmental uncertainty (Elbanna and Child, 2020; Citroen, 2011). The quality of final decision, however, is not the only trait of good strategic decisions, but the process of identifying, evaluating, and selecting options should also be robust (Eisenhardt, 2021).

Empirical studies reveal that organisations that incorporate AI and sophisticated analytics in strategic decision making processes are characterised by a better quality of decisions, more consistency, and better response to competitive and regulatory change

(Brynjolfsson et al., 2021; Shrestha et al., 2021). The effectiveness of strategic decision-making in higher education is displayed through the quality of the academic programme decisions, resource allocation efficiency, the adaptability of institutional policy to regulatory requirements, and effectiveness of long-term positioning strategies (Hazelkorn, 2018). In the case of Iraqi private universities, the issue of strategic decision-making effectiveness is associated with the institutional sustainability, as the sector is subjected to the pressure of competition, accreditation, and financial constraints (Ministry of Higher Education and Scientific Research, 2021; Elbanna and Child, 2020).

2.9. Hypotheses Development

The theoretical review gives the conceptual framework in which the relationships of the study variables are analytically described and supported. In strategic management studies, theory is the major contributor of explaining how and why strategic results depend on organizational and technological aspects, but not just explaining empirical relationships. Within the framework of the present research, the theoretical review will be necessary to discuss how the resources associated with Artificial Intelligence are converted into the effective strategic decision-making results in the context of the Iraqi private universities, as the Chapter One presents. Though empirical research that is reviewed in the preceding section reveals that Artificial Intelligence, leadership support, technological infrastructure, organizational readiness and staff competency are connected with better decision quality, these correlations should be theoretically supported to indicate the mechanism through which these variables relate. Specifically, the issue outlined in Chapter One points at the fact that the adoption of AI in itself is not a guarantee that strategic decision-making will be effective unless the AI-generated insights are incorporated in strategic processes. This observation requires application of strategic management theories that focus on the resource possession and resource utilization.

In this regard, the theoretical grounds of this study are the Resource-Based View (RBV) and Dynamic Capabilities Theory (DCT). All these theories demonstrate how organizations can utilize technological, organizational and human resources to enable themselves to attain high levels of strategic performance in uncertain and changing conditions. RBV offers the reason of considering Artificial Intelligence and associated organizational aspects as strategic resources, and Dynamic Capabilities Theory offers an explanation of how the chosen resources should be applied in an ongoing manner, combined and restructured with the help of smart technology usage to facilitate successful strategic decision-making. Based on these theoretical foundations and the literature reviewed above, seven hypotheses are formulated to guide the proposed framework. Table 1 presents a summary of these hypotheses, outlining the relationships between Smart Technology Adoption, Organizational Readiness, Technological Infrastructure, Leadership Support, Staff Competency, Smart Technology Utilization, and Strategic Decision-Making Effectiveness in Iraqi private universities (refer to Table 1).

Table 1: Summary of Research Hypotheses

Hypothesis	Statement
H1	Smart Technology Adoption has a positive and significant influence on Smart Technology Utilization in Iraqi private universities.
H2	Organizational Readiness has a positive and significant influence on Smart Technology Utilization in Iraqi private universities.

H3	Technological Infrastructure has a positive and significant influence on Smart Technology Utilization in Iraqi private universities.
H4	Leadership Support has a positive and significant influence on Smart Technology Utilization in Iraqi private universities.
H5	Staff Competency has a positive and significant influence on Smart Technology Utilization in Iraqi private universities.
H6	Smart Technology Utilization has a positive and significant influence on Strategic Decision-Making Effectiveness in Iraqi private universities.
H7	Smart Technology Utilization mediates the relationship between the independent variables (Smart Technology Adoption, Organizational Readiness, Technological Infrastructure, Leadership Support, Staff Competency) and Strategic Decision-Making Effectiveness.

3. Research Methods

Research methodology is the cornerstone of any empirical research that can be described as the systematic guideline in investigating research issues and proving a hypothesis by applying rigorous scientific methods (Creswell & Creswell, 2023). It is considered the theoretical paradigms, philosophical assumptions, research strategies, and analytical tools that are used to collect, process and interpret data in a way that makes the results reliable, valid and generalizable (Saunders et al., 2019). The nature of research questions, the features of the phenomenon studied, and the epistemological position taken by the researcher are the key motivations behind the choice of an adequate research methodology (Bryman, 2023). In the modern management literature, especially in the studies involving the adoption of technology and organizational behavior, the methodological apparatus should be carefully constructed to reflect the complexity of the human-technology interaction and still be scientifically rigorous (Venkatesh et al., 2022).

This review follows a systematic narrative review design as a method of synthesising available theoretical and empirical data on the contribution of Artificial Intelligence to strategic decision-making in higher education, with a regional specificity of higher education in developing countries, especially Iraq. The systematic narrative review methodology has been chosen since conceptual diversity, multi-disciplinary contributions and a dearth of context-specific empirical research characterise the field. This research approach facilitates the incorporation of theoretical models along with the empirical evidence into a logical explanatory theory (Torraco, 2005; Snyder, 2019).

Four scholarly databases (Scopus, Web of Science, Google Scholar, and EBSCO) were used to search the literature. Search terms were combinations of the following, Artificial Intelligence, strategic decision-making, smart technology adoption, organisational readiness, technological infrastructure, leadership support, staff competency, smart technology Utilisation, higher education, private universities and Iraq. The search results were narrowed and refined using Boolean operators (AND, OR).

The inclusion criteria were that the articles had to be published in English within 2017-2024, be peer-reviewed journal articles or academic book chapters, discuss at least one of the core constructs in the proposed framework and be focused on the organisational, strategic or higher education context. The research that solely looked at the development of AI in a technical manner but not in an organisational and strategy was eliminated. Non-

peer-reviewed sources and grey literature were also eliminated, although the government reports of the Iraqi ministry of higher education were allowed due to their context relevance. PLS-SEM is especially suitable to the current study because it can easily deal with complex models that have many relationships, has less sample size requirements compared to covariance-based SEM, and is more interested in prediction and theory development (Sarstedt et al., 2024). This part will justify the selection of the method of PLS-SEM as compared to the other methods in detail, show the familiarity with the assumption and shortcomings of the method, and describe the sequential steps that will be taken in the analysis (Hair et al., 2021).

After the first search, eighty one sources were found. Forty-seven peer-reviewed sources were included in the synthesis following the inclusion and exclusion criteria and elimination of duplicates. All these sources were thematically analysed, and each of the studies was assigned a position on the construct in the framework: smart technology adoption, organisational readiness, technological infrastructure, leadership support, staff competency, Smart Technology Utilization, or Strategic Decision-Making Effectiveness. The critical comparison process was used to identify the cross-construct relationships, which allowed formulating the seven research propositions outlined in Section 4.

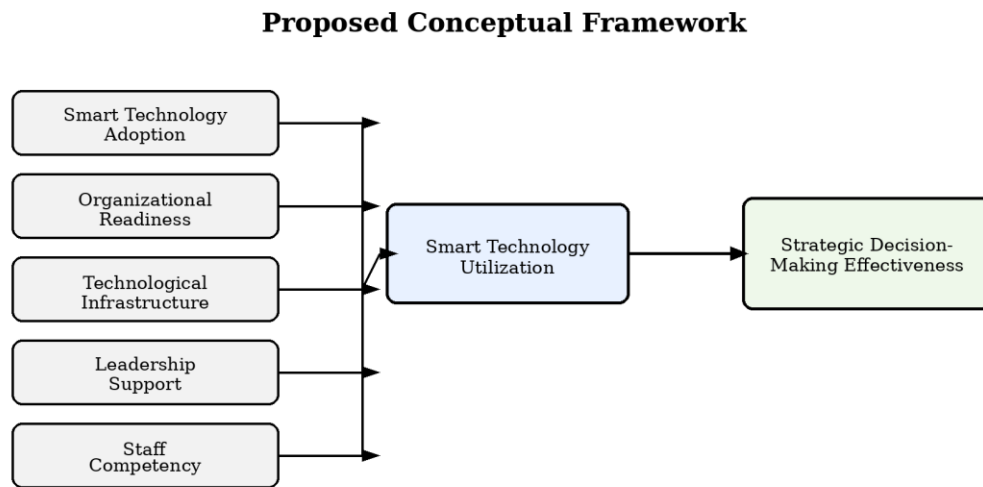
4. Results

4.1. Synthesised Framework

The main deliverable of this review is a synthesised mediated model of AI-driven strategic decision-making within Iraqi privately-owned universities. The framework hypothesises that there are five antecedent variables, Smart technology adoption, organisational readiness, technological infrastructure, leadership support, and staff competency, which influence Smart Technology Utilisation positively. The Strategic Decision-Making Effectiveness, in turn, is positively affected by Smart Technology Utilization. The conceptual underpinning of the framework with the Resource-Based View and Dynamic Capabilities Theory places AI-based resources as a strategic resource whose value is achieved by active, embedded Utilization as opposed to being owned.

The proposed conceptual framework is illustrated in Figure 1. As shown in Figure 1, the model positions five antecedent variables — Smart Technology Adoption, Organizational Readiness, Technological Infrastructure, Leadership Support, and Staff Competency — as direct predictors of Smart Technology Utilization, which in turn drives Strategic Decision-Making Effectiveness in Iraqi private universities. The arrows in Figure 1 represent the hypothesized causal pathways (H1–H6), while Smart Technology Utilization is depicted as a mediating construct (H7) that channels the strategic value of AI-related resources into effective decision-making outcomes. This visual representation underscores the central argument of the review: AI resources alone are insufficient to enhance strategic decisions; their value is realized only when actively embedded into institutional routines through Smart Technology Utilization.

Figure 1: Proposed conceptual framework of AI-enabled strategic decision-making effectiveness in Iraqi private universities.



Five antecedents influence Smart Technology Utilization, which in turn influences Strategic Decision-Making Effectiveness.

4.2. Research Propositions

Seven theoretical propositions are put forward based on the literature synthesis:

P1: The adoption of smart technology has a positive impact on Smart Technology Use in Iraqi higher education private universities.

P2: The organisational preparedness is a positive factor that affects Smart Technology Usage in the Iraqi private universities.

P3: Technology infrastructure has a positive impact on Smart Technology Use in Iraqi privates.

P4: The support of leadership has a positive effect on the Smart Technology Utilization in Iraqi private universities.

P5: The competency of the staff plays a positive role in the utilization of Smart Technology in Iraqi private universities.

P6: The Smart Technology Usage has a positive effect on Strategic Decision-Making Effectiveness of Iraqi private universities.

P7: Smart Technology Use mediates the correlation between antecedents of AI use and Strategic Decision-Making Effectiveness within Iraqi universities of privateness.

4.3. Summary of Proposed Relationships

Table 2 presents a summary of the proposed relationships among the study constructs, mapping each of the seven propositions (P1–P7) to its corresponding theoretical basis. As shown in Table 2, the antecedent variables (Smart Technology Adoption, Organizational Readiness, Technological Infrastructure, Leadership Support, and Staff Competency) are linked to Smart Technology Utilization, which in turn mediates their effect on Strategic Decision-Making Effectiveness, drawing on the Resource-Based View, Dynamic Capabilities Theory, Organisational Change Readiness Theory, the Technology–Organisation–Environment framework, Upper Echelons Theory, and Human Capital Theory.

Table 2. Summary of Proposed Relationships and Theoretical Justifications

Proposition	Relationship	Theoretical Basis
P1	Smart technology adoption → Smart Technology Utilization	RBV (Barney, 1991); Dynamic Capabilities Theory (Eisenhardt and Martin, 2000)
P2	Organisational readiness → Smart Technology Utilization	Organisational Change Readiness Theory (Weiner, 2009; Holt et al., 2007)
P3	Technological infrastructure → Smart Technology Utilization	Technology-Organisation-Environment Framework (Gao et al., 2022)
P4	Leadership support → Smart Technology Utilization	Upper Echelons Theory (Chatterjee et al., 2021; Avolio et al., 2014)
P5	Staff competency → Smart Technology Utilization	Human Capital Theory (Mikalef and Gupta, 2021; Maroufkhani et al., 2020)
P6	Smart Technology Utilization → Strategic Decision-Making Effectiveness	Dynamic Capabilities Theory (Shrestha et al., 2021; Firk et al., 2024)
P7	Smart Technology Utilization mediates antecedents → Effectiveness	Mediation via Utilization as strategic mechanism (Shrestha et al., 2021)

5. Discussion

This review integrates the current theoretical and empirical studies and posits that Smart Technology Utilisation is placed at the centre of mediation in the association between AI-related antecedents and strategic decision-making performance within Iraqi privately run universities. The synthesis assures that neither one antecedent nor technology availability is enough to enhance strategic outcomes, but instead, it is the quality and depth of Utilization that makes the difference between investments in AI resulting in competitive institutional advantage.

The initial significant learning of the synthesis is the difference between Utilization and adoption. Many of the reviewed studies suggest that the adoption of smart technology usually takes place on a symbolic or operational level, and hardly ever on the strategic layer, where high-stakes decisions are made (Margherita and Bua, 2021; Firk et al., 2022). It is particularly intense in the field of higher education, where the institutional inertia and governance mechanisms may slow down the process of embedding the analytical tools into the planning process (Selwyn, 2019). This gap is filled by the proposed framework where Smart Technology Utilization is the process in which antecedent conditions create strategic value.

The second lesson relates to the complementary aspect of the five antecedents. Adoption of smart technology, organisational preparedness, technology infrastructure, leadership support and staff competency do not work in isolation. The literature continuously demonstrates that antecedents reinforce one another: the support of leadership, in turn, gathers resources to invest in infrastructure, and the willingness of the organisation

establishes the culture, in which the competency of the staff can thrive (Dwivedi et al., 2021; Schein, 2017). This interrelationship means that one lack of any antecedent could restrict the ability of others to effectively make Utilization.

Third, the review indicates the specific issues of Iraqi private universities. These institutions exist in a state of regulatory uncertainty, uneven digital infrastructure, and limited financial resources (Al-Samarrai, 2022; Salman and Ali, 2023). These circumstances enhance the significance of smart technology Utilization as a mediator, since the channel between the AI resource accessibility and strategic influence is more intricate and contingent within resource-limited environments. The theory based on these contextual realities that have been established here is that the difference in Utilization in various institutions has a theory based explanation.

The explanatory depth is provided by the theoretical basis of the framework on the RBV and Dynamic Capabilities Theory. RBV describes the strategic significance of AI-related resources, and Dynamic Capabilities Theory explains why such resources should be mobilised and reconfigured, to generate long-term strategic results (Barney, 1991; Eisenhardt and Martin, 2000). Collectively, these theories describe the genesis of strategic value as well as how this value is created, rendering the proposed framework a priori and testable through empirical evidence.

Smart Technology Utilization as a mediating variable has strategic implications in the Iraqi context of the private university, especially. The transformation of the AI-related resources into value of strategic decision-making will not occur automatically as it depends on the level of Utilization that is embedded in the institutional routines, as Shrestha et al. (2021) show. The mediating importance of Smart Technology Utilization is increased in Iraqi private universities, where strategic uncertainty is exacerbated by regulatory ambiguity, financial constraints and imbalanced digital maturity. Those institutions that develop dynamic and embedded Patterns of Utilization are better placed to AI investments into responsive strategic actions, so they can react more responsively to academic programme portfolios, financial planning, and competitive positioning (Al-Husseini, 2020). Csaszar and Eggers (2023) continue by stating that cognitive advantages of AI, namely, improved scenario analysis and minimized decision bias, depend on regular and consistent use as opposed to the infrequent application. This result can be directly applied to the situation in Iraq, where the episodic or symbolic use of AI tools does not create the learning needed to produce the consistent strategic improvement. Additionally, Salman and Ali (2023) record that in Iraqi higher education, contextual barriers such as weak data governance, low interoperability of institutional systems, and low AI literacy of decision-makers systematically inhibit the Utilization of available technologies. These contextual realities suggest that successful Smart Technology Usage in Iraqi privates necessitates thoughtful institutional investments in governance infrastructure, personnel growth, and leadership convergence, rather than just the acquisition of AI platforms. The structure suggested in this review consequently ensures that Smart Technology Utilisation is not merely a statistical mediator but as an institutional capacity which needs to be proactively developed through the organised organisational action.

Lastly, the review will add to the existing literature on AI in the context of developing-country higher education. Current literature is mainly related to corporate settings or universities in developed nations (Zawacki-Richter et al., 2019; Mhlanga, 2022). This gap has been addressed by the present review, as it provides a synthesis of the literature addressing the particular case of the Iraqi private university sector, making propositions

that can guide subsequent empirical studies with PLS-SEM or alternative multivariate methodologies.

6. Conclusion

This review has come up with a synthesised theoretical framework of how Artificial Intelligence can be used to improve the effectiveness of strategic decision-making in Iraqi private universities. Based on the Resource-Based View and Dynamic Capabilities Theory, the review hypothesizes that the adoption of smart technology, organisational preparedness, technology infrastructure, leader support, and employee competency contribute to the formation of Smart Technology Utilisation that, in turn, produces Strategic Decision-Making Effectiveness.

There are two main theoretical contributions in the review. First, it expands the topic of AI-enabled strategic management to an under-researched setting of the Iraqi private higher education, which has a significant gap in the literature on the use of AI in strategic management in developing countries. Second, it determines Smart Technology Usage as the most important mediating mechanism through which AI-related resources become strategically valuable to offer the theoretically consistent explanation of why the availability of AI does not necessarily lead to the strategic improvement.

University governance also has practical implications of the review. In the case of Iraqi private universities aiming to achieve more strategic results, AI implementation cannot be achieved without investment in technology. It necessitates the concomitant growth of organisational preparedness, computer infrastructure, leadership determination, and human resources. The policy focus ought to be on the establishment of institutional environments that support the use of Smart Technology as opposed to the limited scope of the technology procurement. Empirical works are welcome in the future to test the proposed framework with survey-based design and multivariate analytical techniques like PLS-SEM, and to investigate whether the proposed relationships change depending on institutional size, ownership structure, or governance structure.

Ethics Approval and Consent to Participate

Not applicable. This is a review of published academic literature and does not include human subjects, primary data gathering or experiments.

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Conflict of Interest

The authors declare there are no conflicts of interest.

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