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Digital Entrepreneurial Alertness: Driving Sustainable Banking Performance Through Technology Acceptance

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ABSTRACT

Purpose: This study attempted to diagnose and measure the logical relationships between the study variables represented in entrepreneurial Alertness, technology acceptance and sustainable bank performance, and to achieve this it was applied in the Iraqi government-banking sector. The study aims to determine the level of entrepreneurial Alertness, technology acceptance and sustained performance in the organization in question, in addition to the cognitive, organizational and experiential aspects of these relationships, through an examination of some previous studies. Study design: The study was designed with an analytical-descriptive approach through deductive analysis in the cognitive and empirical domain of the model and the hypotheses of the study. The study data were collected from government banks in the governorates of the southern and central Euphrates, which represent part of the national economy of the country facing major challenges brought on by the rapid developments underway Technology and fierce competition, the study sample was limited to the senior management representatives of the banks (managing directors, deputy directors, department heads) In these banks, the questionnaire tool was implemented on the Five-point Likert scale designed because the researchers relied on robust standards whose validity and stability were tested by statistical means and methods in a confirmatory factor analysis The data were processed using advanced statistical software (AMOS.23) and (Spss v.4). Findings: The results of the applied analysis of the study community indicated that entrepreneurial Alertness has a strong relationship to fostering and achieving sustainable performance, given the supportive support for the variable Technology Adoption or Honest. For Originality/Value: This study aims to help to show the strengths to achieve sustained performance and how digital entrepreneurial Alertness through technology adoption helps to achieve it.

KEYWORDS: Entrepreneurial Alertness Digital, Technology Acceptance, Sustainable Performance and Iraqi public sector banks.

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INTRODUCTION

As organizations evolve in response to global changes (Hatch, 2018), they face challenges that demand innovative solutions (Thomas, 2020). These include increasing internationalization, diversity, competitive pressures, and the need for constant innovation (Porter, 1998). The emergence of the COVID-19 pandemic further accelerated these transformations, forcing organizations to adapt their operations (Bailey, 2020) and redefine customer interactions (James, 2019). Organizations shifted from traditional direct methods to digital platforms, integrating advanced technological developments alongside globalization in the economy (Robertson & Garrett, 2001; Friedman, 2005). This shift has disrupted traditional markets, particularly in banking, where competition online demands substantial capital and innovative services to secure a leading position in digital markets (Brown, 2010; Wagner, 2006).

The digital revolution in banking (Kane, 2009) underscores the importance of digital readiness for achieving business success, enhancing efficiency, improving services, and driving economic growth (Davenport, 2012). Investments in information technology are now critical to adapting to dynamic environments, fostering research, experimentation, and innovation to remain competitive (Smith, 2008). However, organizations often struggle with limited capacities to predict and meet future demands (Kurtz, 2007) or

rapidly acquire necessary skills (Richards, 2012). These challenges are particularly acute in the banking sector in Iraq, where intense competition necessitates adopting advanced technologies to achieve sustainability and outperform competitors (Peterson, 2016).

To retain customer loyalty and trust, banks must embrace innovation, diversification, and renewal (Stewart, 2015). This requires aligning organizational strategies with economic, social, environmental, and ethical sustainability goals (Brown, 2008). Comprehensive changes and strategic planning (Wright, 1998) enable organizations to balance immediate business needs with long-term sustainability, adapting to volatile market conditions through agile strategies (Wheeler, 2015). In this context, adopting sustainability-focused strategies becomes a critical survival mechanism (Porter, 2008), empowering organizations to seize overlooked opportunities, acquire new knowledge, and leverage them for competitive advantage (Schumpeter, 2010).

The contemporary business landscape, characterized by economic instability and environmental turbulence (Porter, 1998), presents unique challenges for developing economies like Iraq. For organizations in these contexts, fostering growth and revitalizing local economies necessitates prioritizing sustainable performance (Richards, 2012). This performance integrates economic, social, environmental, and ethical considerations, linking organizational goals to broader societal objectives. Studies on technology adoption further emphasize its role in enabling organizations to adapt to rapid developments and dynamic environments (Smith, 2010). In Iraq, the challenges of economic hardship and technological lag have amplified the need for organizations to adopt advanced technologies to enhance competitiveness (Schumpeter, 2010).

Entrepreneurial readiness is critical for navigating these challenges, as it reflects an organization's ability to leverage information, communication, and entrepreneurial skills to explore opportunities (Rogers, 1995). This readiness enables the formulation of innovative strategies and sustainable business practices (Schumpeter, 2010), paving the way for improved performance in volatile markets. For Iraqi banks, achieving entrepreneurial readiness and adopting sustainable practices are essential for contributing to economic resilience and long-term sustainability in the face of global challenges.

LITERATURE REVIEW:

Literature and study background:

1: Entrepreneurial Alertness Digital and its dimensions:

The ability to innovate and adapt banks to dynamic environmental conditions has been a fundamental principle of management research for decades (Smith, 2015). Today, in the current circumstances and challenges, technological changes and uncertain business conditions challenge competitive advantages in a highly turbulent environment (Rogers, 2017; Smith, 2015). Technological alertness plays an important role in the acceptance of technological services and applications (Brown, 2013). Therefore, the concepts of alertness have multiplied and spread, especially with the increasing speed of dynamic changes in science (James, 2012). Alertness is based on the beliefs, intentions (Brown, 2013), and positions of individuals in the organization, seen as purposeful thinking and the visions of organizations (Smith, 2015; Jones, 2014). Alertness is defined as the ability and desire to act in relation to the environment in which a person or organization is prepared to perform a task in the future (Rogers, 2017; Smith, 2015; Moore, 2008). It is also described as the mental state (Rogers, 2017) of the organization, its efficiency in monitoring and analyzing the environment to harness its creative and productive potential (Richards, 2011), and exploring its entrepreneurial possibilities. Alertness encompasses the organization's preparation, response, legitimacy, and maturity (Green, 2016), beyond just its operational performance, enabling the organization to foresee future possibilities. The success of any organization today is linked to the digital mindset, which refers to the ability to use digital technologies and techniques (Jones, 2015). In other words, discovering opportunities and skills and how to use them depends mainly on the organization's willingness to participate in such activities and its responsiveness to change (Stewart, 2009).

Despite attempts to measure entrepreneurial alertness, the literature and previous studies have shown limitations in the dimensions represented by scanning and searching for new information (Brown, 2008), changes, and transformations that others ignore, as well as continuous surveying of the environment. Opportunity involves preexisting knowledge, alertness, and sensitivity to new possibilities (Porter, 2010). Scanning and researching allow entrepreneurs to be unconventional in their efforts to explore new ideas, helping them build a large amount of relevant information about a particular field (Richards, 2011). The information gathered represents a sensory store for the individual, allowing brief storage of the information in its original form (Jones, 2014). This storage process allows individuals to develop their knowledge base, whether implicit or explicit.

Regarding association and communication, the next step after gathering information focuses on obtaining new information, fostering creativity, and making logical connections, as it involves how the information is used (Smith, 2015). This step gives individuals the opportunity to study options and make decisions (Porter, 2005). Beyond forming unique connections and focusing on details related to multiple pieces of information, association enables individuals to make unprecedented and distant connections (Brown, 2012). According to Rogers (2010), calculating effects, variances, and responses that appear highly correlated consists of several steps. First, individuals try to understand what data is relevant to the assessment of variance, as the data needs to be communicated across multiple aspects of the problem. Second, they tabulate the data into evidence types, such as positive or negative. Positive data is often easier and quicker to integrate into the inference model than negative data (Green, 2016). Third, individuals should estimate the frequency for each type of evidence (Jones, 2013), and finally, they pool the evidence, typically within different non-consecutive

groups. These cognitive correlations and the ability to process current information depend largely on individuals' experiences and expectations about the relationship between variables (Schumpeter, 2010).

As for assessment and judgment, after scanning the environment and linking previously disparate information over time (Porter, 2005), the newly gathered information is assessed for its match with the cognitive perception. This is achieved by aligning up-to-date information with specific models and prototypes related to employment opportunities (Stewart, 2009; Porter, 2005). Entrepreneurs, after evaluation, assess the content of current information, filter unnecessary data, and evaluate the new information to determine whether it reflects potential business opportunities. This process enhances the situational awareness of entrepreneurs, allowing them to gain additional insights (Green, 2016). The assessment process requires individuals to carry out research to modify and reconsider relevant alternatives (Richards, 2011).

2: Accept technology.

Technology acceptance is the willingness of a group of users to use the information technology for the task for which it has been designed and developed to support it (Davis, 1989). This would explain why various features like motivation towards using technology become significant deciding factors concerning acceptance thereof (Venkatesh & Bala, 2008). These include external factors that tend to qualify the effectiveness of any technology-based learning applications (Taylor & Todd, 1995). studies have suggested TAM, as considered by Venkatesh and Davis (2000), nothing less than an important and effective construct for predicting user adoption in systems that cater to e-learning support. It is based on behavioral factors, while the core of the SM incorporates two representative versions both based on the factors of technology: TAM1 and TAM2 (Venkatesh & Davis, 1996). The TAM model encompasses a total of four dimensions: perceived usefulness, perceived ease of use, attitude toward use, and behavioral intention considered for numerous investigations in the domain (Venkatesh, 2000). **Perceived Usefulness**: This dimension is one of the main elements of the TAM. Researchers have described it as the self-assessment of a new technology within a certain framework in relation to task completion, and perceived usefulness is positively related to the working behavior of the organization (Davis, 1989). It reflects the belief that technological systems will provide great benefits in completing tasks (Venkatesh & Bala, 2008). Perceived usefulness is understood as the system's ability to complete organizational management tasks efficiently, providing timely information, achieving cost savings, and thereby improving job performance (Taylor & Todd, 1995). This positive perception is expected to enhance technology adoption intentions (Venkatesh & Davis, 2000).

Perceived Ease of Use: Perceived ease of use refers to the extent to which individuals believe that using a particular technology will not require excessive effort. Studies have shown that ease of use indirectly affects perceived usefulness and attitudes toward technology (Davis, 1989). It has been demonstrated that ease of use has a positive impact on user intent for two reasons: first, through its indirect effect on perceived usefulness, and second, through individuals' attitudes toward technology use (Venkatesh & Bala, 2008). Additionally, there is a distinction between consumer acceptance and professional acceptance, as consumers might face complexity when using information applications (Venkatesh & Morris, 2000). **Attitude Toward Use**: This is another critical factor in the acceptance or rejection of technology. Numerous studies have shown that an individual's attitude toward using technology positively impacts their intention to use it (Venkatesh & Davis, 1996). A positive attitude correlates with an individual's likelihood to adopt and use a particular technology (Davis, 1989). **Behavioral Intention**: Behavioral intention concerns the user's intended behavior toward a certain technology. Named and defined by Ajzen (1991), it is defined as the individual's perceived behavior under certain circumstances. Behavioral intentions stem from psychology and have found widespread applications in predicting technology adoption (Fishbein & Ajzen, 1975). The notion of behavioral intentions has been viewed as the easiest and most appropriate predictor of user behavior for the last couple of decades (Venkatesh & Morris, 2000). Studies have shown that behavioral intention is a significant conceptual context for understanding planned behavior and provides solutions to various behavioral dilemmas in the field of management science as it directly relates to human behavior (Ajzen, 1991). By studying behavioral intention, researchers are better able to understand the implications of technology adoption and predict user behavior (Venkatesh & Bala, 2008). In summary, many researchers have tried some technical methods and theories to test the factors that affect technology acceptance. Testing behavioral intentions remains a significant parallel to predicting technology adoption (Venkatesh & Davis, 2000).

3- Sustainable performance.

The organizations have stepped up efforts for the adoption and implementation of sustainable lodging. Under the umbrella of burgeoning global concerns of sustainability towards integrating sustainable development in organizational running, the need arises to operationalize sustainability into the overall corporate strategy (Elkington, 1997). The adoption of sustainable organizational practices has thus become a necessity for organizations (Porter & Kramer, 2006). into their operations mainly to manage environmental risks and achieve social development (Bebbington et al., 2008). This type of practice fosters a culture of green investment, social development, environmental protection, and stakeholder interest safeguarding (Hart & Milstein, 2003).

Embedding sustainability into service provisions also has some positive effects, for instance, on reputation, the establishment of lasting competitive advantage, and increased share value (Harrison & Freeman, 1999. Sustainable organizations are more efficient and productive, as they successfully integrate environmental, social, ethical, and economic factors into their core strategies (Dyllick

& Hockerts, 2002). Although there is no universally agreed-upon definition of sustainability, many researchers align with the definition in the Brundtland Report (1987), which describes sustainable performance as meeting the needs of present generations without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987).

Sustainable bank performance is measured across multiple dimensions: economic sustainability, social sustainability, environmental sustainability, and ethical sustainability, as agreed upon by most researchers (Elkington, 1997). Economic sustainability is the priority for banks, which strive to ensure financial viability by enhancing the quality of services and introducing new projects aimed at achieving the financial goals of shareholders and stakeholders (Schaltegger & Wagner, 2011). Without economic sustainability, efforts toward social, ethical, or environmental goals may be limited (Dyllick & Hockerts, 2002).

Social sustainability, which refers to an individual's right to lead a decent life while benefiting from natural and social wealth, is now integrated with other sustainability dimensions within the banking sector (Bansal, 2005). It aims to raise the standard of living without compromising the well-being of future generations (Elkington, 1997). Ethical sustainability encompasses the organizational values, standards, and rules that influence individual behavior within the organization (Crane & Matten, 2016). It helps attract customers and investors, reduce employee turnover, and increase productivity (Donaldson & Preston, 1995). The application of ethical sustainability is closely tied to the moral development of individuals and good leadership within banking organizations (Bowie, 2017).

Lastly, environmental sustainability has garnered significant attention, particularly because pollution poses a serious global threat (Bansal & Roth, 2000). Environmental sustainability emphasizes reducing environmental damage while promoting quality of life through the minimal consumption of natural resources, leaving reserves for future generations (Hart & Milstein, 2003). Banking organizations have begun to implement policies and programs aimed at minimizing environmental harm as part of their sustainability strategies (Shrivastava, 1995). This approach underscores the importance of balancing development with environmental conservation to achieve long-term sustainability (Elkington, 1997).

CORRELATION BETWEEN THE STUDY VARIABLES:

First: the connection between entrepreneurial Alertness and sustainable performance.

Hence, the ability to recognize and judiciously take advantage of an opportunity in itself greatly contributes to improved organizational performance because they gain access to the markets, in turn, creating goods and services that fit with consumer needs (Tang et al., 2012). The entrepreneurial alertness is understood to have provided the organizations with the ability to adopt different pieces of information that contribute to the ongoing economic performance through innovativeness and adaptability (Kirzner). 1973). It also nourishes entrepreneurial creativity values that are at the center of providing and sustaining value in the market through the exploitation of customer needs (Gaglio & Katz, 2001). Entrepreneurial alertness aims to focus and enhance organizational awareness of internal and external factors. signals so that it can change strategies and business models in response to maintain long-term sustainability (McMullen & Shepherd, 2006).

Many studies have associated, supplementary to sustainable performance, growth in entrepreneurial alertness with enhanced organizational performance. Organizations that say they possess high entrepreneurial alertness are better tuned to finding chances for innovation that behavior will produce positive sustainability performance references. These firm-ready customers do this by providing not only scanning but also detection of critical information. opportunity (Alvarez & Barney, 2007). It becomes a firm within focus for sustainability action, determining strategies that are continuously aligned with the evolving world, thereby remaining useful commercially and challenging at a level that might or could engage other companies (Schaltegger & Wagner, 2011). In addition, changes in their environment. Simultaneously, they will create a bulwark of long-term growth, durability, and creative enterprise serving the interests of both the company and stakeholders in Oomuk (Gielnik et al., 2014). Ultimately, entrepreneurial alertness is not simply recognizing opportunities; it involves ingraining in the organizational culture the continuous search and execution of sustainable practices.

Second: The interrelationship between technology acceptance model and sustainable performance.

Technology is vital to organizational performance, comparable to essential lifeblood coursing through every department, enabling decision-making, creativity, and smooth running (Fichman & Kemerer, 1999). The inclusion of technology helps organizations do the same tasks but faster, taking less time and less effort, while providing flexibility in business operations and relationships both internally and externally (Venkatesh & Davis, 2000). The technology enables organizations to adapt to changing environments, engage in continuous innovation, and build meaningful connections with other organizations, other groups, and individuals (Davis, 1989). The users perceive, expect, and feel certain ways about their use of technology that will affect the technology's impact on sustained organizational performance. Innovation is very important for long-term performance; the way organizations leverage technology results from the overlapping of these aspects, shaping their behavior. intentions toward adoption and innovations (Venkatesh et al., 2003). Atmospherically and not considering technology development, several reviews have argued that technology acceptance positively influences sustainable performance by effectively integrating technology with overall organizational outcomes (Davis, 1989; Venkatesh et al., 2003).

Technology acceptance involves processes related to cognitive and emotional aspects such as perceptions of usability and usefulness: expectations of benefits from technology, and emotional responses that occur during technology use (Venkatesh & Bala, 2008). The cognitive and emotional aspects direct individual behavior while moderating the readiness of the organization at large to adopt new technologies. From a social perspective, technology enables organizations to stay connected while communicating. with various stakeholders from employees to customers through digital channels such as internal networks, external networks, social media, and websites (Kaplan & Haenlein, 2010). They provide real-time interaction and knowledge sharing that can enhance relationships and customer satisfaction. From an ecological perspective, the advent of the internet has presented expansive information spaces, enabling organizations to analyze and respond to both internal and external market conditions. effectively (Clemons, 2009). The adoption of information technology allows organizations to improve sustainability performance in economic, social, and environmental dimensions. Being able to innovate with, adjust to, and leverage technology becomes vital for maintaining a competitive advantage for long-term sustainability.

Third: The link between entrepreneurial Alertness and technology acceptance.

Technological developments were reflected in the accelerated business environment for the interpretation of events (Drucker, 1993), a wave of massive information flows, and the openness of knowledge, which forces organizations to adopt some interpretations imposed on them, such as building modern management techniques and technological methods (Porter, 2001). Striving to keep up with these developments helps organizations achieve excellence in their products and services, as well as achieve effectiveness and efficiency, ultimately leading to a leading position in the market (Baron, 2006). Technology is one of the most important modern resources of our time, and this has prompted companies to adopt it rapidly to increase productivity and performance, thereby achieving leadership positions (Shane, 2003).

Many studies, including those conducted in 2018 (Tang, Kacmar, & Busenitz, 2012), suggest that there is a link between entrepreneurial alertness and its impact on technology adoption. Entrepreneurial alertness is represented by three dimensions: collection and research, communication and association, and evaluation and assessment (Kirzner, 1979). These dimensions are reflected in their impact on technology acceptance, as organizations search for new information and recognize changes and transformations that other organizations may overlook (Venkatesh et al., 2003). The information sought serves as a sensory treasure trove for organizations, encouraging the development of the organization's knowledge base with new situations (Baron, 2006). By linking multiple pieces of information, organizations can establish valuable contacts with their external environment and competitors (Shane, 2003). Additionally, entrepreneurial alertness helps organizations evaluate and assess this information, which is a critical part of corporate alertness, reflecting the organization's ability to develop insight into the value of the information collected (Tang, Kacmar, & Busenitz, 2012).

Based on the above discussion, the research question can be formulated as follows: To what extent do banks in Iraq need drivers to improve entrepreneurial alertness, and how does the latter affect sustained performance through the intermediary role of technology acceptance? To answer this research question, the work was organized as follows: first, a theoretical framework for the research model and hypotheses was presented (Drucker, 1993); second, the research methodology was uncovered, followed by an examination and analysis of the data based on reliability and validity, along with the testing of the hypotheses. Administrative and organizational thinking was then presented, with future proposals and an indication of the shortcomings in the assumption of entrepreneurial alertness (Shane, 2003).

Research tool design:

Table 1. Abbreviations and terms used in the study

die Scale	code	number ferries	Factor Loading	Commun-alities	source
Scan and search	Scan_Search	7	0.78	0.61	Tang et al.,2012
Link and connect	Link_Connect	5	0.75	0.57	
evaluation and judgement	Evalu_Judg	6	0.80	0.64	
economic sustainability	Econ_Sustin	5	0.73	0.54	Prakash& &Kumar, 2019
social sustainability	Soci_Sustai	5	0.77	0.59	
environmental sustainability	Envir_Sustai	5	0.82	0.67	
Ethics sustainability	Eth_Sustai	5	0.85	0.72	
perceived benefit	Perce_Benef	4	0.79	0.62	Tao et al., 2020
perceived benefit	Ease_Use	5	0.83	0.69	
direction of use	Behav_Intent	4	0.81	0.66	
behavioral intentions	Direct_Use	3	0.76	0.58	

Sample and data collection

The study aims to assess the key dimensions of entrepreneurial Alertness and its impact on sustainable bank performance through technology adoption for banks in Iraq using 150 samples of primary survey data. The study also identifies the state of sustained performance of Iraq's sovereign sector banks using the sampling method, the questionnaire was conducted in the study sample organizations distributed to the participants, with 200 questionnaires being distributed while 150 questionnaires were retrieved. In Table (2) the demographics of the respondents were presented, showing 60% males and 40% females. In terms of age, 24% are middle-aged, while only 2% are over 60 years old, the majority of respondents in Iraqi banks in the study sample can be described in terms of their scientific background as 3% have a PhD and 14% have a Master's degree. They were more open to implementing sustainability in Iraqi banks.

Table 2. demographic characteristics

	variables	category distribution	views	percent
1	gender	Male	123	60%
		Female	87	40%
			150	100%
2	age categories	Less than 25	0	0
		30-26	0	0
		35-31	16	10%
		40-36	37	24%
		45-41	26	17%
		50-46	30	20%
		55-51	27	18%
		60-56	10	6%
		and more 60	4	2%
			150	100%
3	Scientific Qualification	middle school	9	6%
		Technical Diploma	32	21%
		B. A	74	49%
		Higher Diploma	9	7%
		master	21	14%
		Ph.D	5	3%
			150	100%
4	seniority	Less than 5	2	0,01
		10-5	17	11%
		15-11	35	22%
		20-16	27	18%
		25-21	33	21%
		30-26	19	12%
		35-31	14	9%
		40-36	3	0,2%
		40 and more	0	0
			150	100%

ANALYSIS METHOD OF THE STUDY

The use of multivariate analysis is a powerful statistical approach that provides researchers with an accurate and realistic conclusion (Hair 2010), a multivariate method for statistical analysis that exploits structural equation modeling of relationships (SEM) Integrates factor analysis and multiple regression analysis to determine the structural relationship between measurable variables and latent variables (Hair 2010) to achieve diversified statistical analysis. We used 23 AMOS and 24 SPSS for Accuracy Assessment (CFA) and Confirmatory Factor Analysis (EFA), we also performed exploratory factor analysis, validity, computational, and structural models, and the results were obtained in various ways. The mean root standard is the square root of (Hu & Bentler 1999).

TESTING HYPOTHESES OF THE STUDY

In analyzing influence relationships, the current study established the use of the structural equation modeling (SEM) method based on the program (Amos v.24) This is because this method is one of the best modern methods, and by its results, it is possible to determine the degree of influence between the variables depending on the structural model and the resulting results and the set of

parameters.) This technique is a complex and multivariate procedure that lends itself well to testing the various hypothesized or proposed relationships between variables in comparison to a range of social research statistical methods and has and continues to have many advantages over social research statistical methods some advantages over other methods of analysis and the following Before beginning testing of the study hypotheses, the Pearson correlation test is performed to determine the strength and nature of the relationship between the research variables, and then the structural modeling equation is tested. Looking at the matrix of correlation coefficients for the study variables in Table (3), we find that there is a positive correlation between the study variables.

Table 3. Testing the association between study variables

	Entrepr_Alert	Tech_Accept	Econ_Sustin	Soci_Sustai	Envir_Sustai	Eth_Sustai
Entrepr_Alert	1					
Tech_Accept	.366**	1				
Econ_Sustin	.613**	.619**	1			
Soci_Sustai	.364**	.761**	.612**	1		
Envir_Sustai	.711**	.678**	.738**	.712**	1	
Eth_Sustai	.658**	.285**	.446**	.239**	.494**	1

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

The results of the indirect effect test, as shown in Table 4 and illustrated in Figure 1, demonstrate that Entrepreneurial Alertness has a positive and indirect influence on various dimensions of sustainability through Technology Acceptance. The indirect impact on economic sustainability is (0.23), on social sustainability (0.24), on environmental sustainability (0.28), and on ethical sustainability (0.13). All these effects are statistically significant at the (0.01) level, confirming the critical role of technology acceptance as a mediator in enhancing the relationship between entrepreneurial alertness and the sustainability dimensions.

Table .4 Test results of the indirect effect hypothesis

Indirect impact path	Indirect impact	trust period minimum	trust period highest	incorporeal	The result
ECON_SUSTIN <-- TECH_ACCEPT <-- ENTREPR_ALERT	.23	.097	.003	**	hypothesis accepted
SOCI_SUSTAI <-- TECH_ACCEPT <-- ENTREPR_ALERT	.24	.062	.002	**	hypothesis accepted
ENVIR_SUSTAI <-- TECH_ACCEPT <-- ENTREPR_ALERT	.28	.133	.004	**	hypothesis accepted
ETH_SUSTAI <-- TECH_ACCEPT <-- ENTREPR_ALERT	.13	.102	.003	**	hypothesis accepted

* Significantly at the 0.05 level (2-tailed). ** Significantly at the 0.01 level (2-tailed).

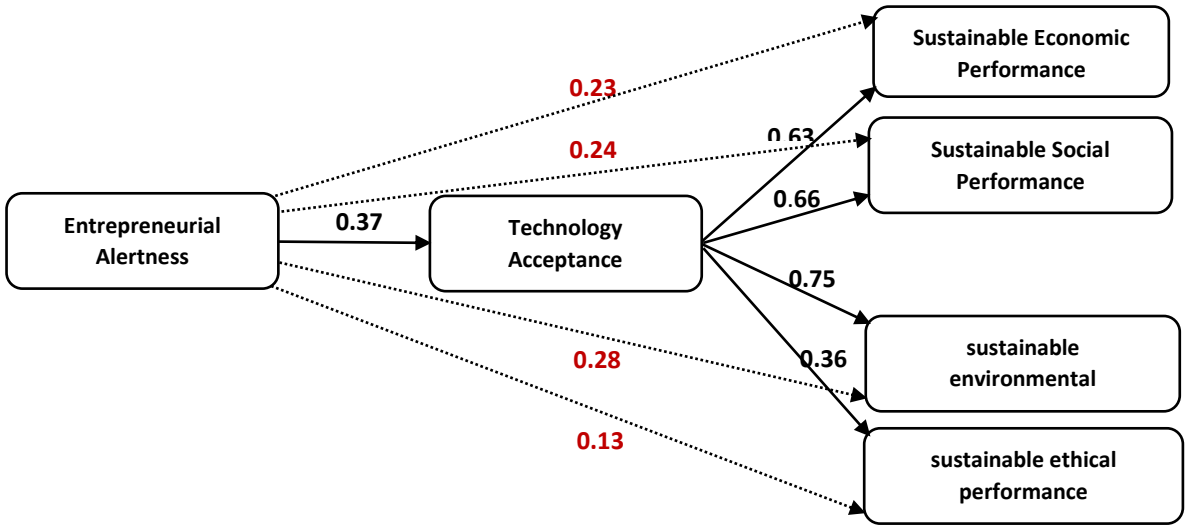

Figure 1. The direct and indirect effect of the study model

RESULTS

The main purpose of this study is to examine the relationship between the drivers behind the success of digital entrepreneurial Alertness and how the latter positively impacts sustainable performance, which is currently a challenge for all institutions, including banks. It aims to diagnose sustained performance by examining and analyzing its roots, specifically digital entrepreneurial Alertness and its key success factors.

The banking system in Iraq represents the building block for the success of the Iraqi vision by supporting the various sectors that Iraq wishes to develop such as tourism, healthcare, global supply chains, renewable energy, petrochemicals, etc. This is seen as an unprecedented opportunity for its market position to strengthen and ensure its sustainable survival. This research aims to examine the maturity of banks in terms of the existence of the motives required to support their entrepreneurship orientation about electronic products and services. The second objective is also to measure the performance of banks in a sustainable manner and how the governance of e-entrepreneurship impacts sustainable practices and performance According to the research methodology, a search form and questionnaire were developed based on an in-depth literature review. The data was collected on a relative basis for a large sample, including state-owned banks in Iraq. The analysis highlights particular concerns about the availability of the required drivers. Namely, the support of the management, the technological environment, and the development of intellectual capital. The results also showed the willingness of bank managers to recognize the importance of entrepreneurship and how it can improve dimensions of sustainable performance, which are economic, social, environmental, and ethical considerations. In terms of practical implications, this study offers: First, it provides bank managers with a clear understanding of the current situation to benefit from the entrepreneurial Alertness of banks operating in Iraq. The research also reflects the shortcomings in building digital entrepreneurial Alertness Looking forward to limitations, directions, and future research, it should be noted that the focus of the study was mainly on one industry, namely the banking sector, which has specific regulations and peculiarities. An evaluation of the samples on other industries seems appropriate to generalize the research results. This study also considers the dimensions of sustainable performance, i.e. economic, environmental, ethical, and social responsibility as results, while accepting technology plays a mediating role.

Between Entrepreneurial Alertness and dimensions of sustainable performance such as economic performance, social performance, environmental performance, ethical performance, compared to some other industries, the banking sector is not the only influencer on ecological activities that have and may have a significant impact and will be the subject of future studies.

DISCUSSION

The findings of this study provide substantial support for existing literature on the critical role of digital entrepreneurial alertness (DEA) and technology acceptance in driving sustainable performance. Digital entrepreneurial alertness, as highlighted in this research, aligns with Schumpeter's (2010) notion of entrepreneurship as a driver of innovation and economic transformation. DEA enables organizations to identify and capitalize on emerging opportunities, echoing Tang et al. (2012) and Valliere (2013), who emphasize the importance of proactive opportunity identification for competitive advantage. However, the study also reveals a gap in the adoption of innovative digital ideas, reinforcing Wagner's (2006) observation that traditional organizations often struggle to integrate lateral thinking into routine processes. This underlines the need for cultural shifts within organizations to prioritize innovation.

The mediating role of the Technology Acceptance Model (TAM), as confirmed by this study, reinforces the work of Davis (1989) and Holden & Karsh (2010), who argue that perceptions of technology's ease of use and usefulness are essential for its successful adoption. By linking TAM to sustainable performance, the study builds on Mortenson & Vidgen (2016), demonstrating how positive perceptions of technology facilitate improved operational efficiency and stakeholder satisfaction. These results suggest that investments in technological infrastructure and training are critical, resonating with Davenport's (2012) emphasis on leveraging technology for operational excellence.

Sustainability dimensions discussed in the findings are deeply intertwined with prior literature. The link between DEA and sustainable economic performance supports Porter's (1998) assertion that competitive strategies must integrate sustainability to achieve superior outcomes. Additionally, the association of social and ethical sustainability with enhanced customer relationships mirrors Freeman & Dmytriyev's (2017) stakeholder theory, which highlights the role of ethical behavior in fostering trust and value creation. However, the study identifies weaknesses in environmental sustainability practices, a challenge also noted by Brown (2008) and Robertson & Garrett (2001), who advocate for integrating environmentally responsible strategies into core business practices to achieve long-term sustainability.

The challenges identified in this study, such as limited trust between management and employees and insufficient adoption of ethical standards, align with Maxwell's (2005) and Richards' (2012) insights into organizational dynamics. Transparency and ethical principles, as highlighted by Wright (1998), are essential for cultivating trust and ensuring organizational alignment with broader sustainability goals. Addressing these gaps requires targeted interventions, a notion supported by Mintzberg's (2011) framework on strategic planning and adaptability in dynamic environments.

In summary, the findings not only validate but also expand upon existing theoretical frameworks by providing empirical evidence from the context of Iraqi public sector banks. This integration of DEA, TAM, and sustainability dimensions offers practical implications for organizations navigating the challenges of digital transformation and sustainability in competitive environments.

CONCLUSION

This research investigates the relationship between digital entrepreneurial alertness (DEA), technology acceptance, and sustainable performance in Iraqi public sector banks. Increased decisiveness, a category of DEA readiness, to adjust to technological changes and sustainability challenges, is highlighted by the results of the research. A critical intermediary effect on economic, social, environmental, and morally sustainable digital adoption was also pointed out as technology acceptance. Strengths included a banking sector that was proactive in integrating DEA and aware of the possibility of demonstrating further sustainability. On the other hand, they also showed weaknesses in limited lateral thinking, poor focus on digital innovation, and poor work standards in capacities regarding ethics. It was also found that a lack of strong mechanisms

CONTRIBUTES

The study holds significant theoretical and practical contributions to DEA, technology acceptance, and sustainable performance, particularly in the Iraqi public banking sector. Theoretically, it links DEA with sustainability through the mediation of technology acceptance, extends the applicability of the Technology Acceptance Model (TAM) to public institutions in developing economies, and enhances the existing knowledge base through reference to the unique context of Iraq. Practically, it lays the roadmap for the improvement of DEA via innovation and opportunity identification opens the door to different ways technology can be used to advance performance, and consolidates the role of integrating sustainability into banking procedures. On the policy level, this work leads to informed decision-making towards aligning banking strategies to advance national sustainability goals while contributing to digital transformation through regulatory incentives. to Iraq while providing a template adaptable to the rest of the developing economies, being a valuable resource for improving competitiveness and sustainability in dynamic environments.

RECOMMENDATIONS

The gaps and opportunities identified above compel a recommendation that the knowledge of digital entrepreneurship will improve if an organizational culture of creativity is cultivated, digital tools integrated, and specific training programs implemented. Technology acceptance requires strengthening through developing infrastructure, training, and obtaining active stakeholder input. Building sustainable development systems at various levels will depend on economics and sociology—environmentalism and ethics, with the integration of clear programs and performance indicators. Trust and communication can be built on transparency, ethical leadership, and accountability systems. Partnerships with government and NGOs must promote cooperation among stakeholders for better context-aligning practices within national policies. Finally, specialized mechanisms should be established within the respective industries for the ultimate benefit of cooperating. determination and pursuit of digital opportunities. The findings emphasize the need for broad strategic options to overcome the challenges relating to DEA and technology acceptance in sustainability. The recommendations set forth enabled actionable ways of augmenting the sector's strengths while addressing its weaknesses. Iraqi banks would be able to become better performers and grow in the long run through creativity, effective technology capabilities, and embedding. sustainability. Interestingly, these approaches also provide a guide to other industries, especially in developing economies, for maneuvering through the complexities of digital transformation and sustainability.

LIMITATIONS AND FUTURE RESEARCH

Despite offering valuable insights, this study has several limitations. It identifies only the Iraqi public banking sector and hence has limited generalizability to other industries or contexts, such as to private banks or the non-financial sector. Besides, the geographical scope is limited to Iraq, which lies in the developing category of economies with socio-economic and regulatory conditions that are distinctly different from those in other regions. Longitudinal studies capture data points at certain periods in time. This process puts limits on the long-term observation of the trends or causal relationships established over time between variables. Besides addressing the main sustainability dimensions such as economic, social, environmental, and ethical, it does not discuss cultural sustainability and governance practices, which are likely to further enhance the analysis. Finally, the quantitative approaches used—surveys and structural equation modeling—might miss the subtle organizational angles that may have been better captured using qualitative approaches.

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